

planning  
transport  
design  
environment  
infrastructure

Document 3.1 – ES Volume 2

Appendix 4.1: Transport Assessment Part 2

Wheelabrator Kemsley (K3 Generating Station) and Wheelabrator Kemsley North  
(WKN) Waste to Energy Facility DCO

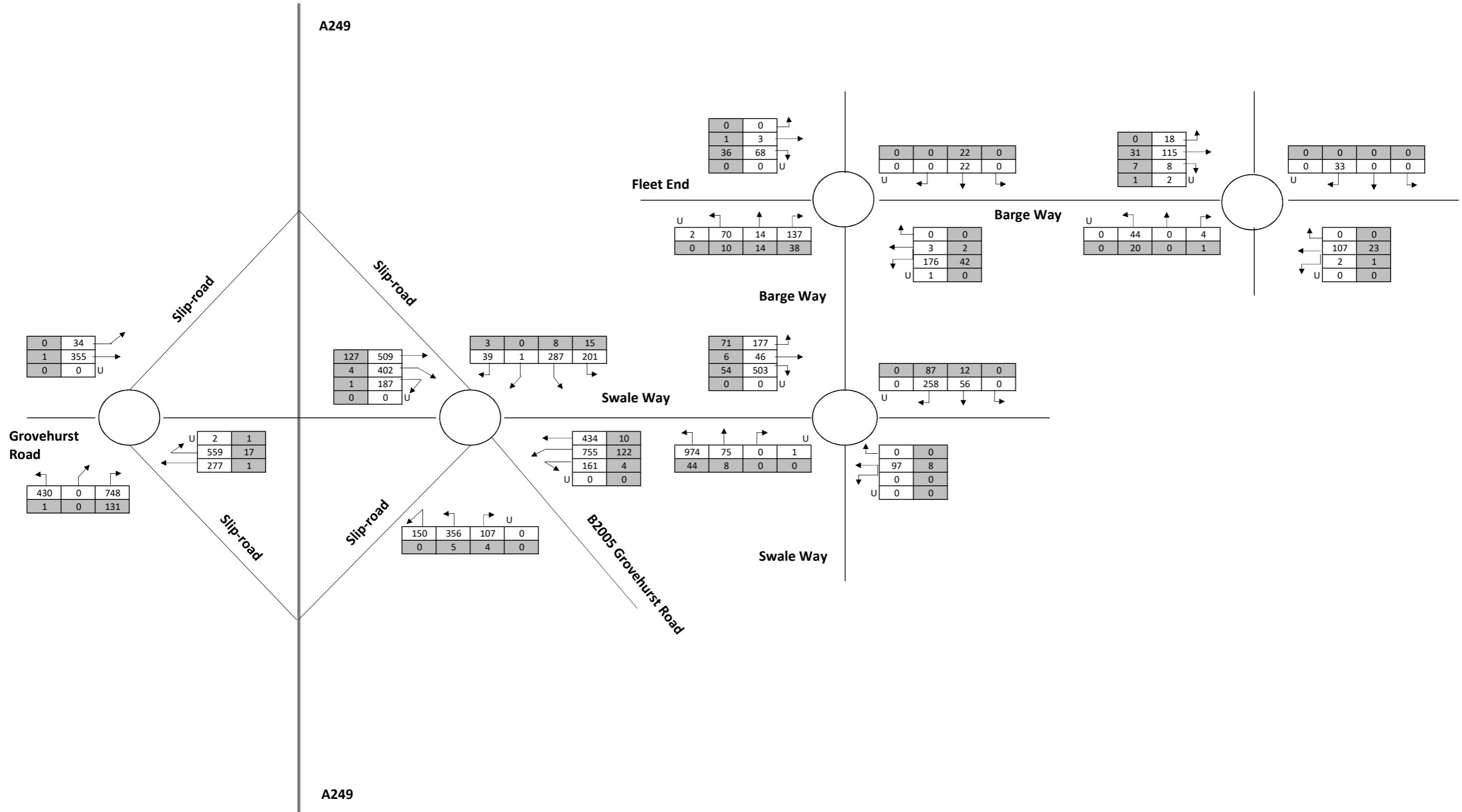
September 2019 -Submission Version

PINS ref: EN010083

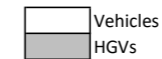




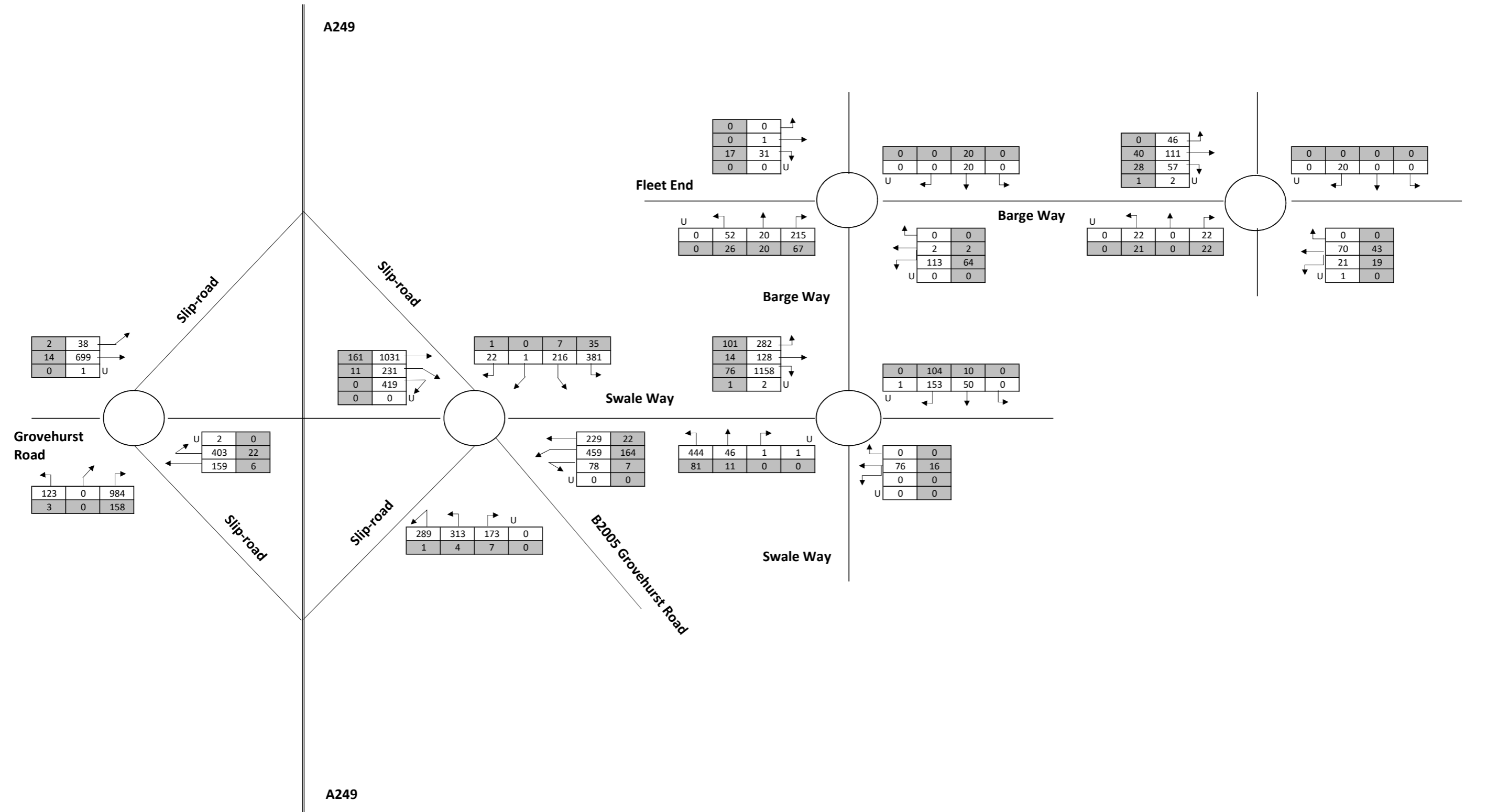




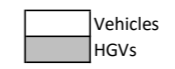
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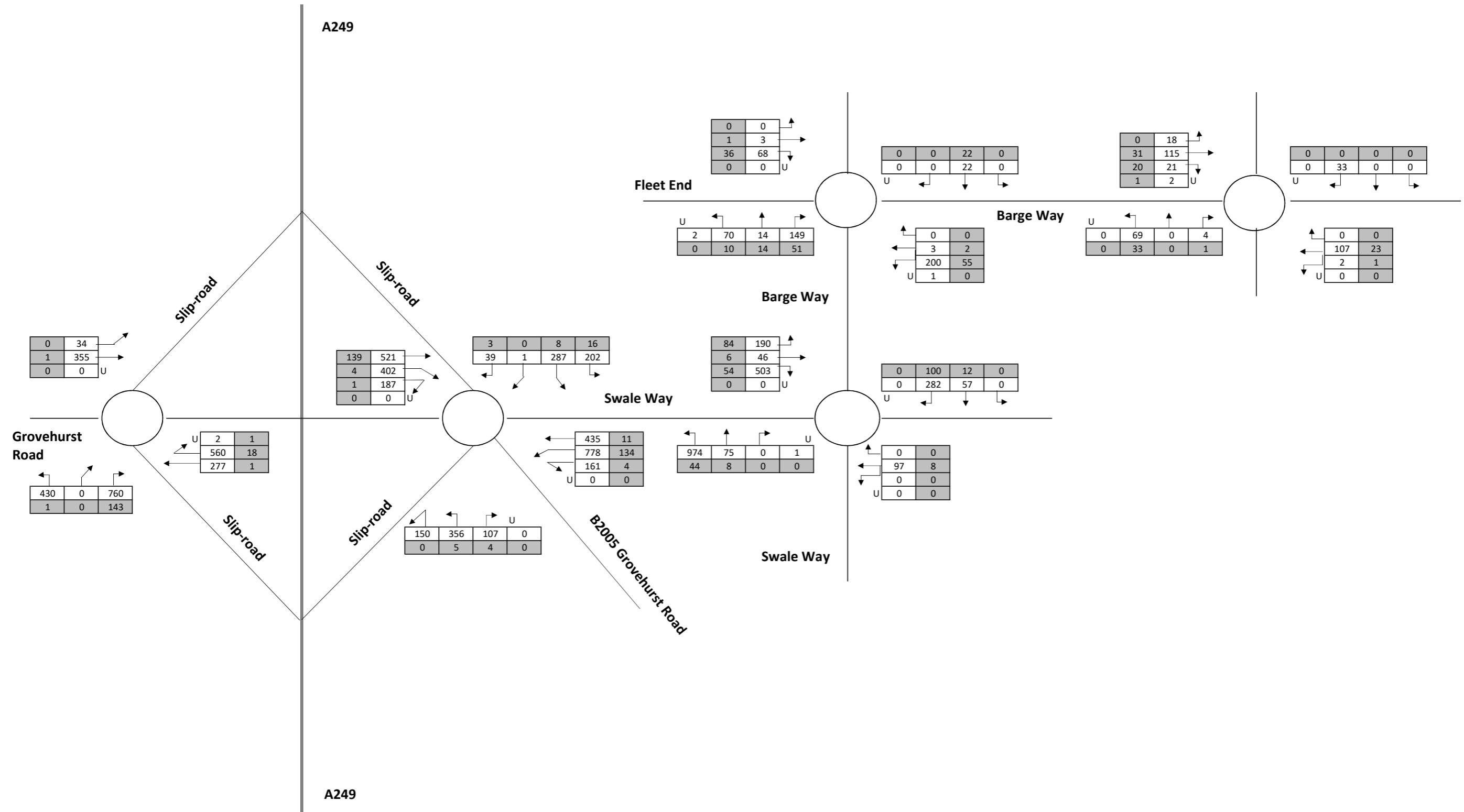
**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2031 Baseline + 2031 Cumulative Development PM Peak Hour (K3 (0-75MW))



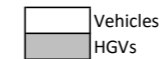
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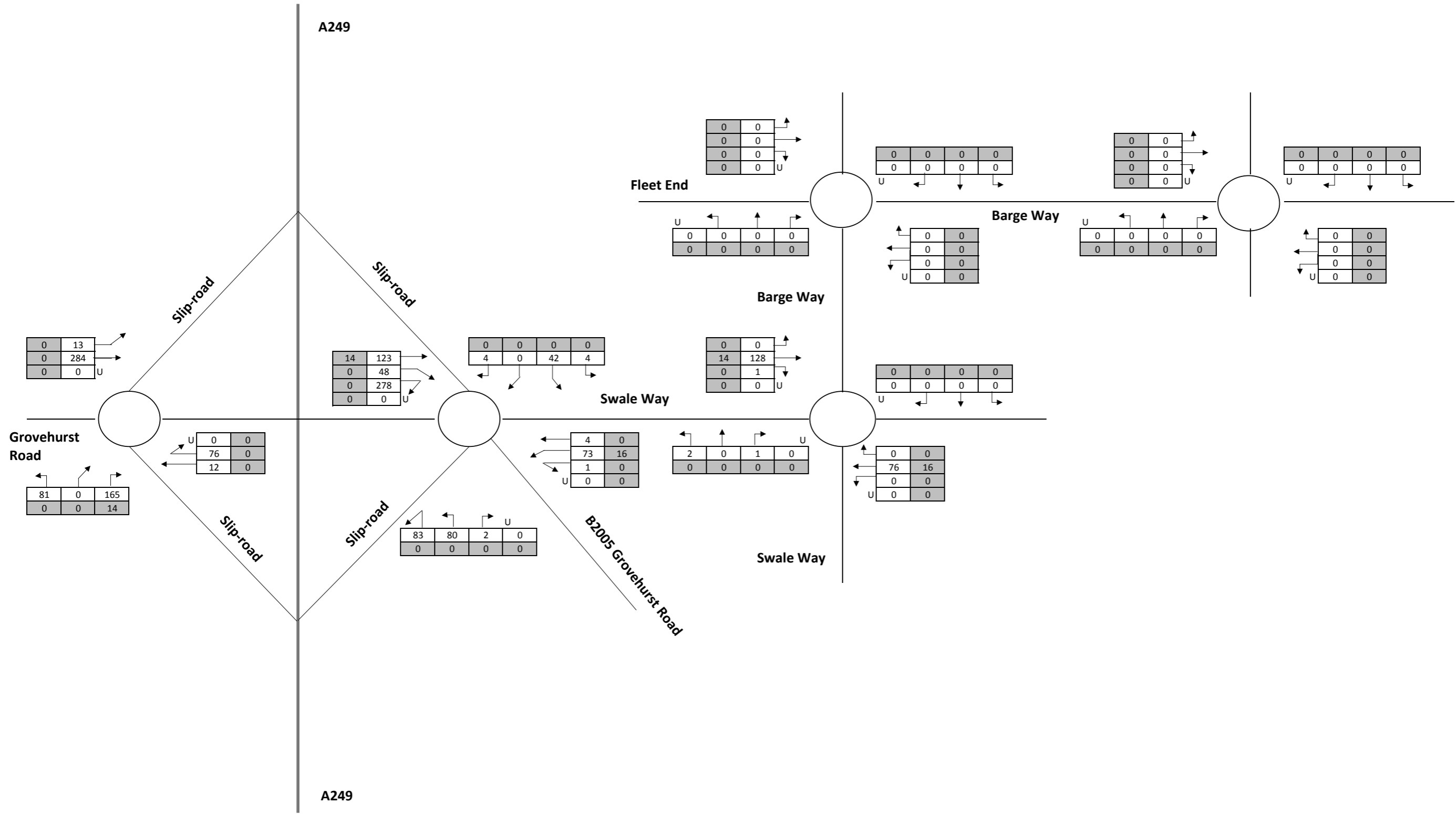
**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2031 Baseline + 2031 Cumulative Development AM Peak Hour (K3 (49.9 - 75MW) and WKN)



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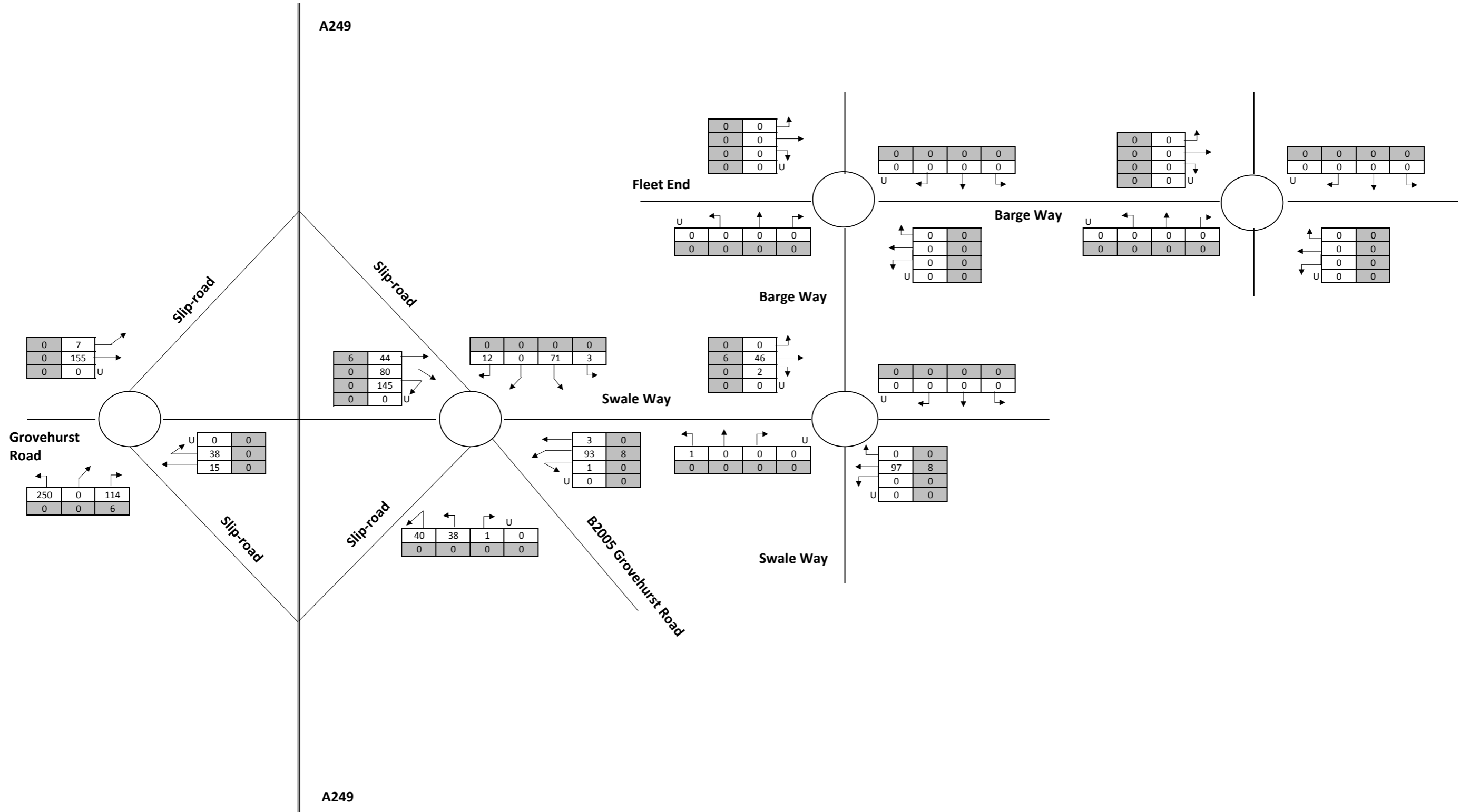
**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: 2031 Baseline + 2031 Cumulative Development PM Peak Hour (K3 (49.9 - 75MW) and WKN)



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White box: Vehicles  
 Grey box: HGVs

**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2031 Cumulative Development AM Peak Hour



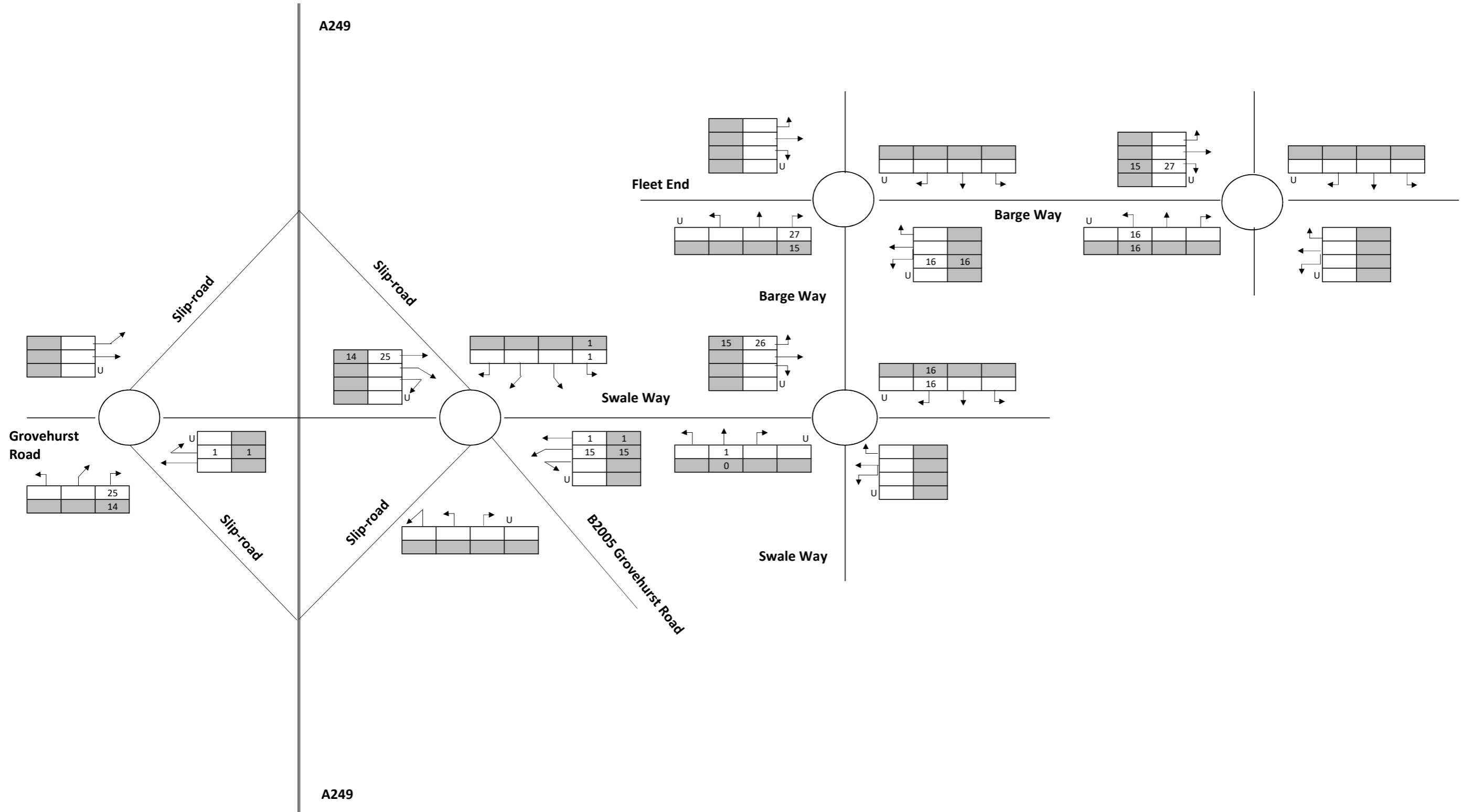
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	Vehicles
	HGVs

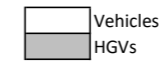
**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2031 Cumulative Development PM Peak Hour

**APPENDIX H: K3 OPERATIONAL AM AND PM PEAK HOUR  
TRAFFIC FLOW DIAGRAMS**

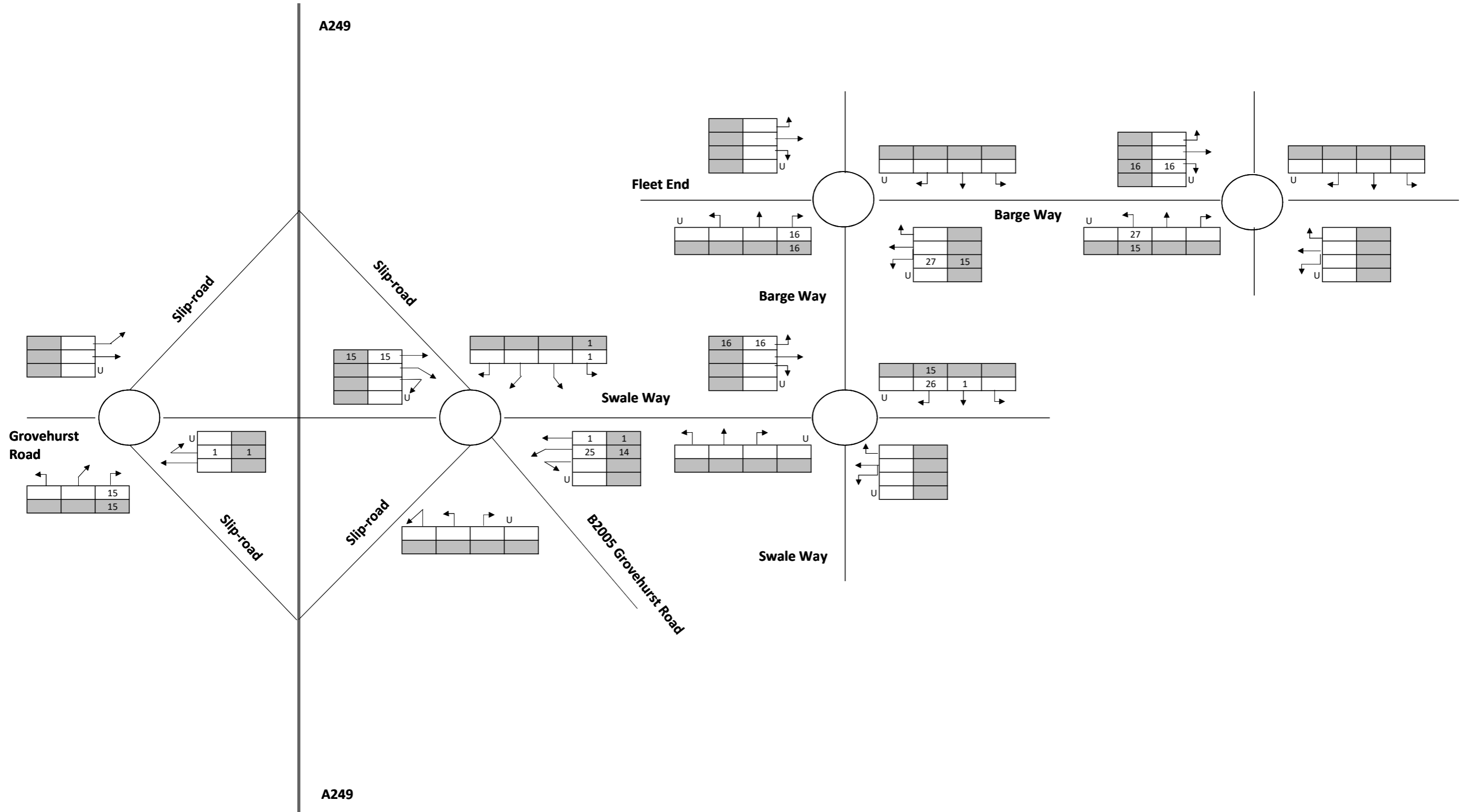
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**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: **K3 Operational AM Peak Hour (K3 0-75MW)**

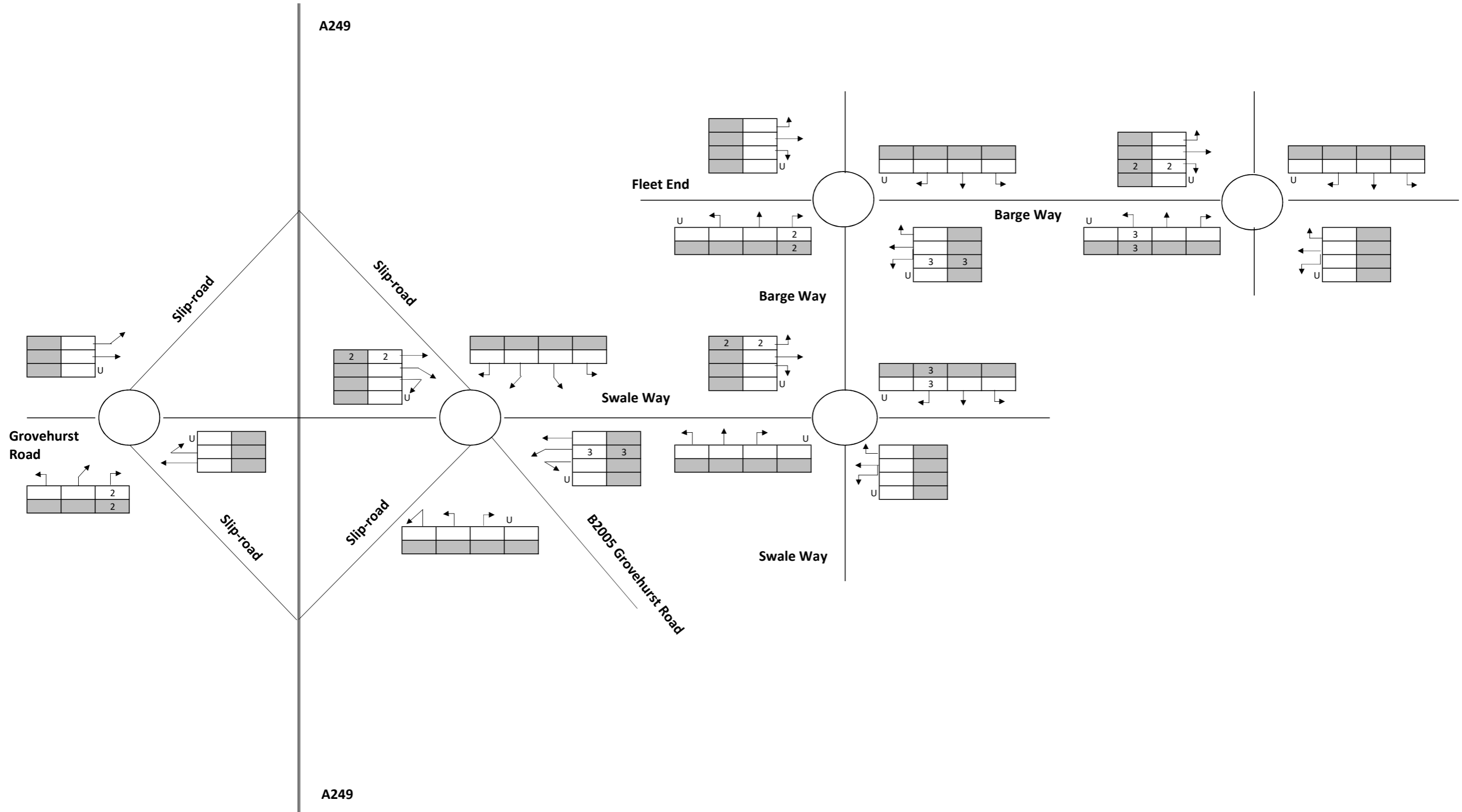


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**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: K3 Operational PM Peak Hour (K3 (0-75MW))

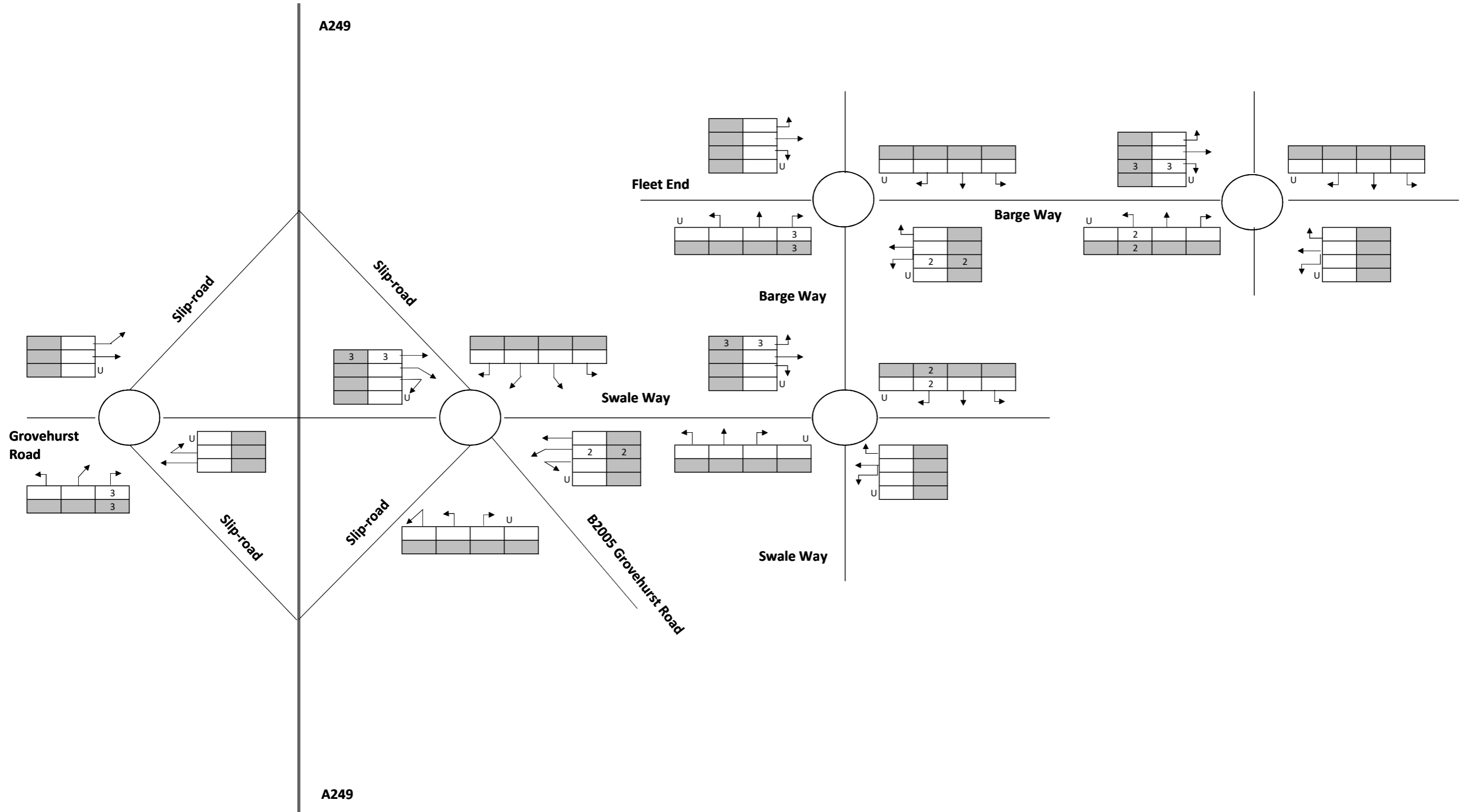




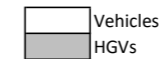
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 Vehicles  
 HGVs

**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: **K3 Operational AM Peak Hour (K3 (49.9 - 75MW) and WKN)**



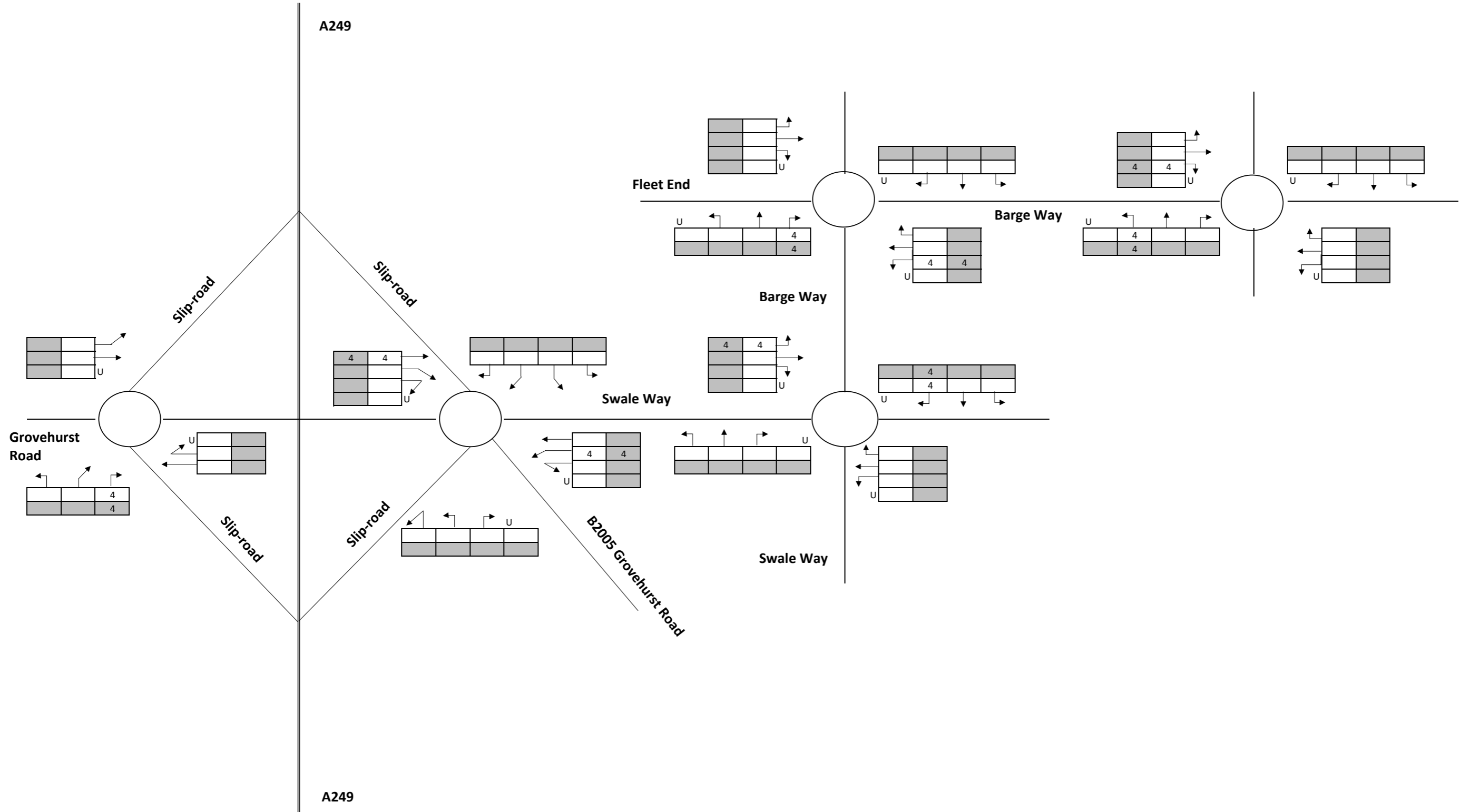
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**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: **K3 Operational PM Peak Hour (K3 (49.9 - 75MW) and WKN)**

**APPENDIX I: WKN PEAK CONSTRUCTION AM AND PM PEAK  
HOUR TRAFFIC FLOW DIAGRAMS**

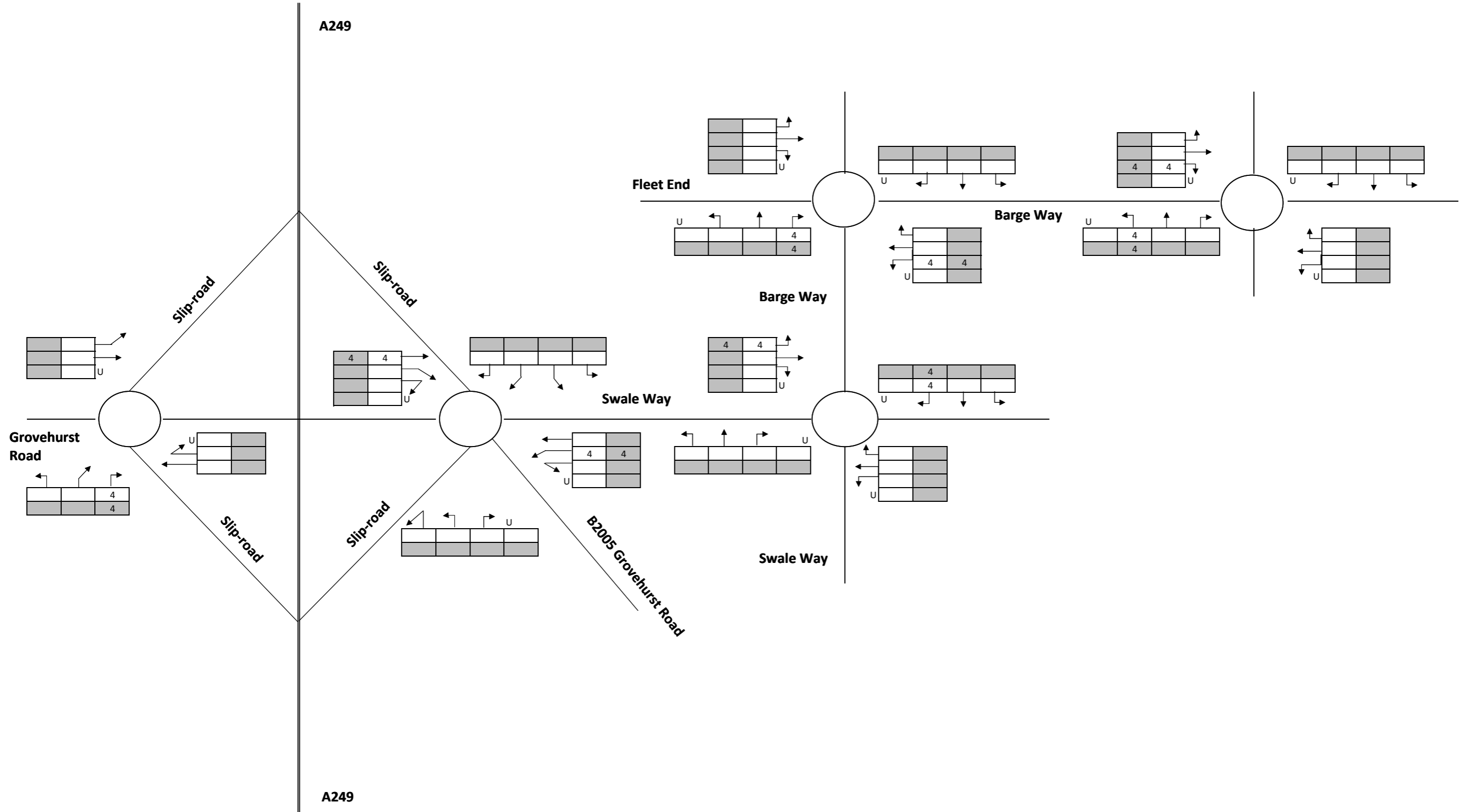
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 Vehicles  
 HGVs

**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: **WKN Peak Construction AM Peak Hour**



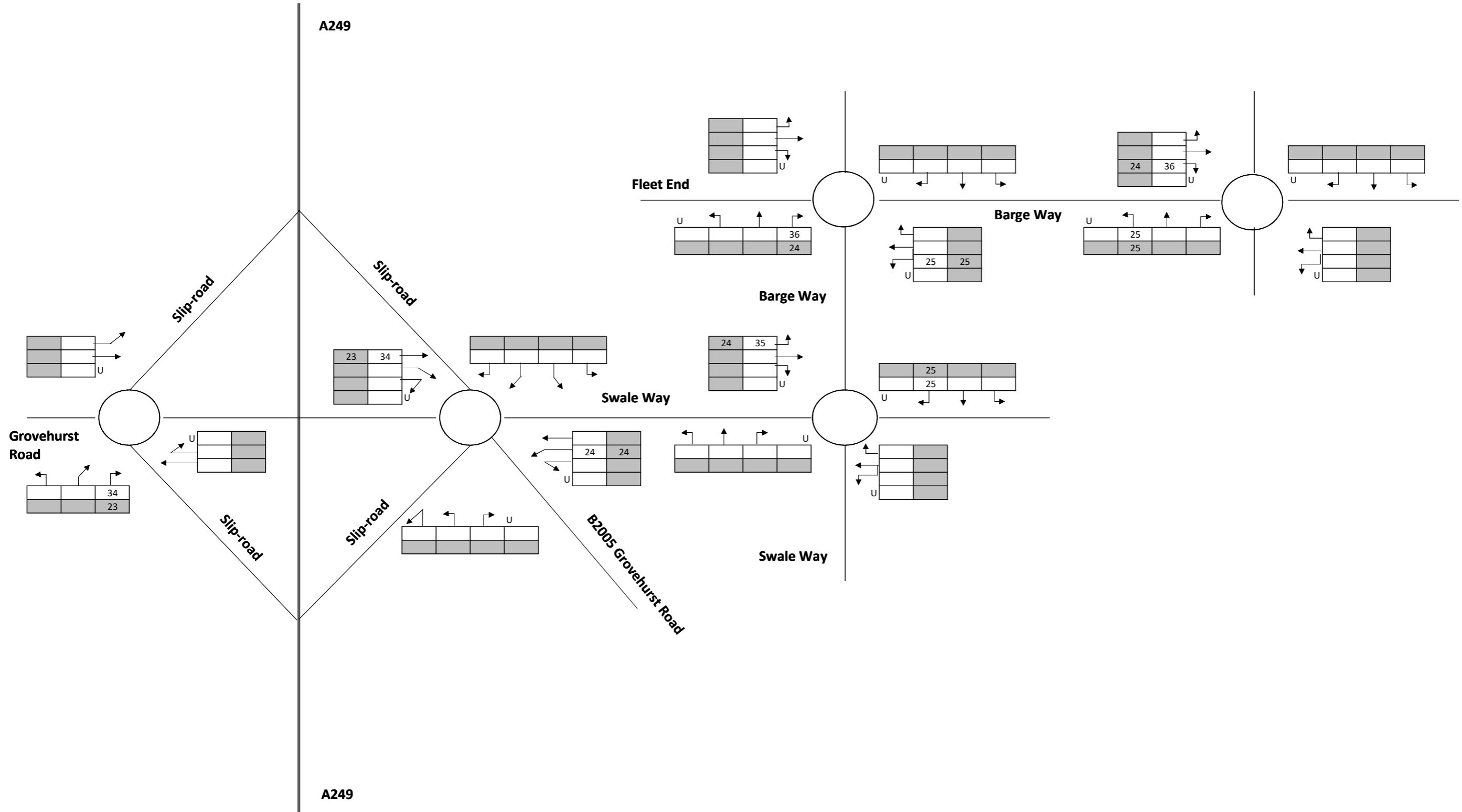
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**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: **WKN Peak Construction PM Peak Hour**

**APPENDIX J: WKN OPERATIONAL AND K3 OPERATIONAL  
PLUS WKN OPERATIONAL AM AND PM PEAK HOUR TRAFFIC  
FLOW DIAGRAMS**

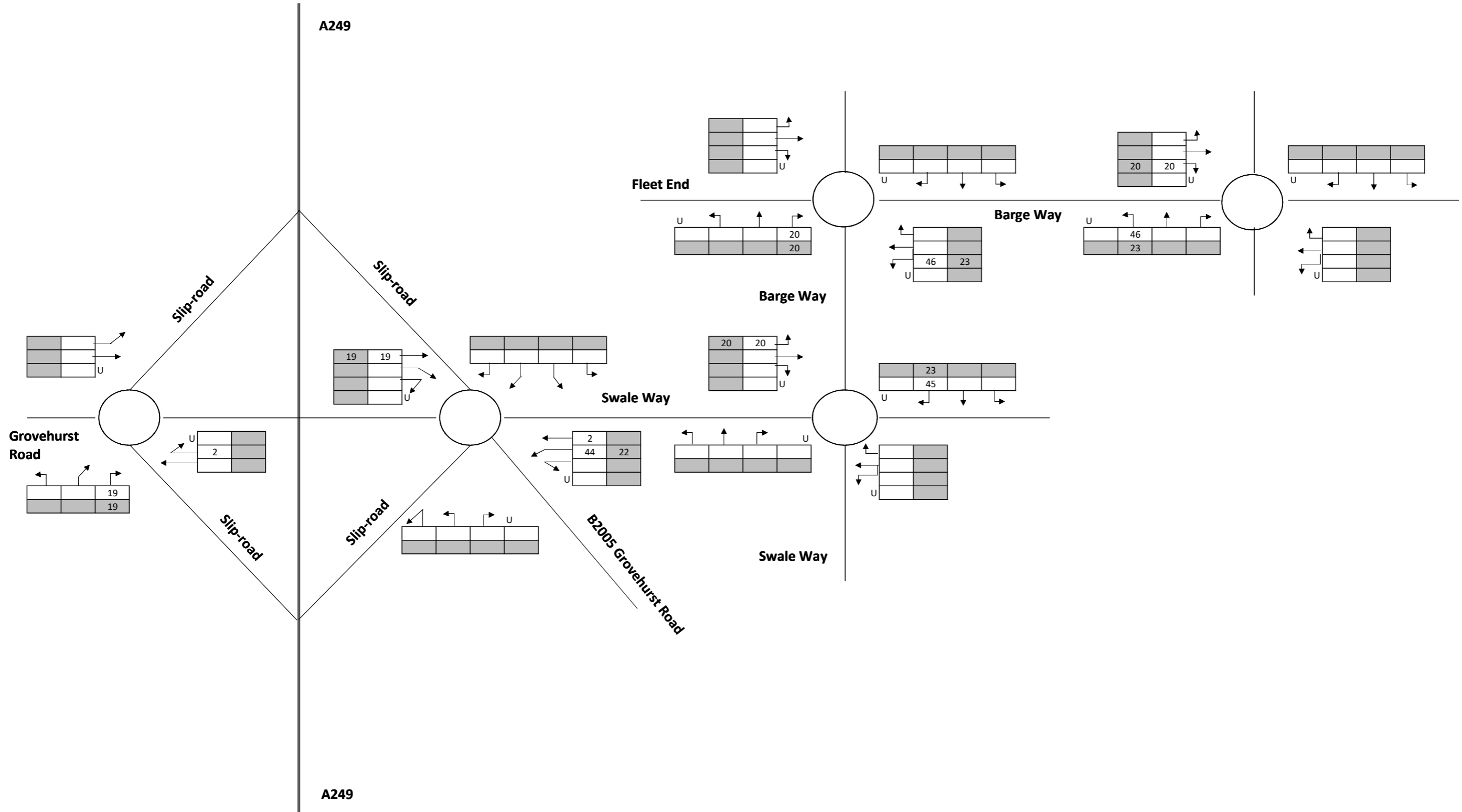
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**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: **WKN Operational and K3 Operational AM Peak Hour (K3 (0-75MW))**

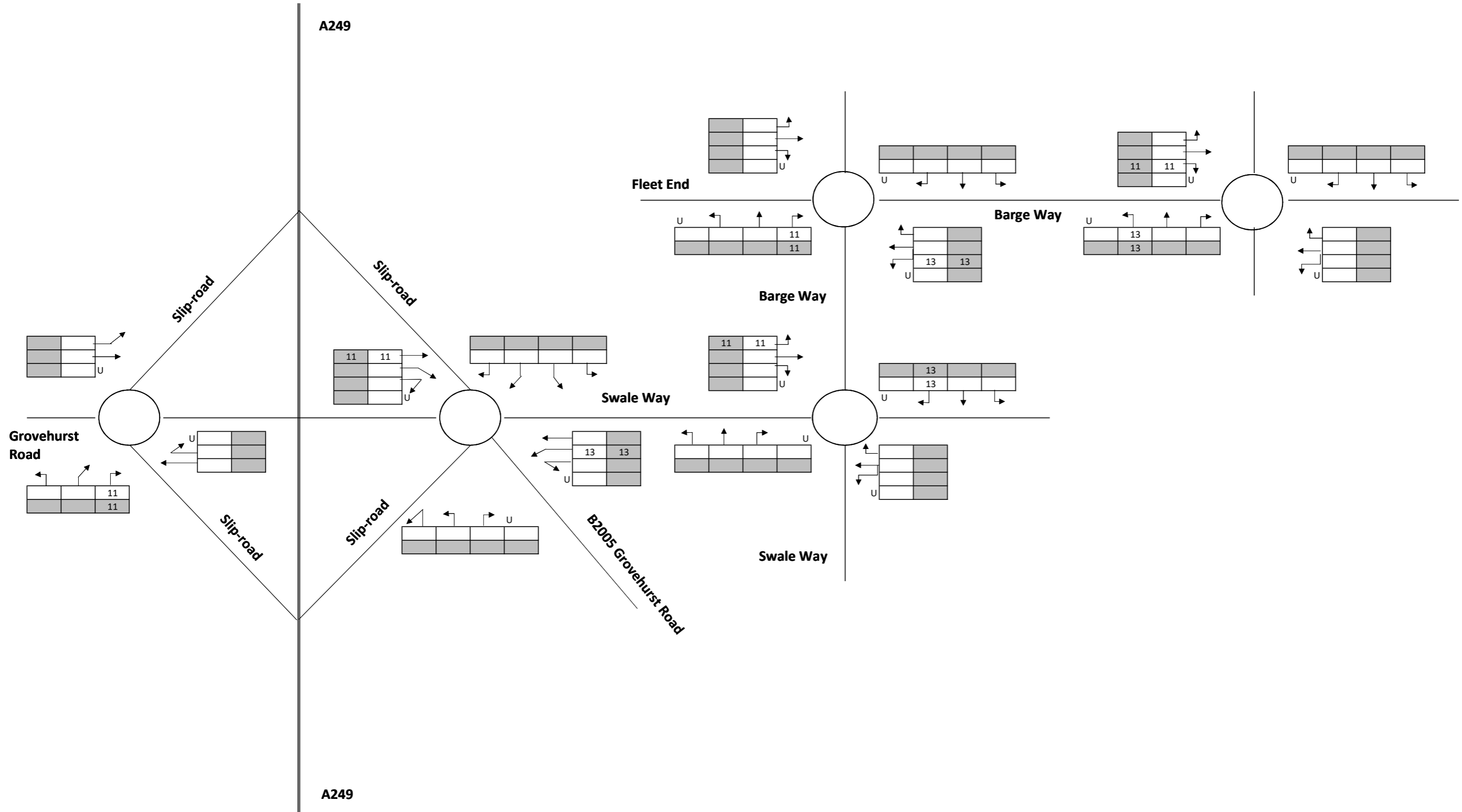


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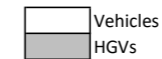


**Figure:** Wheelabrator Technologies Inc  
**Client:** K3 Power Upgrade and WKN  
**Project:** WKN Operational and K3 Operational PM Peak Hour  
**Title:** (K3 (0-75MW))

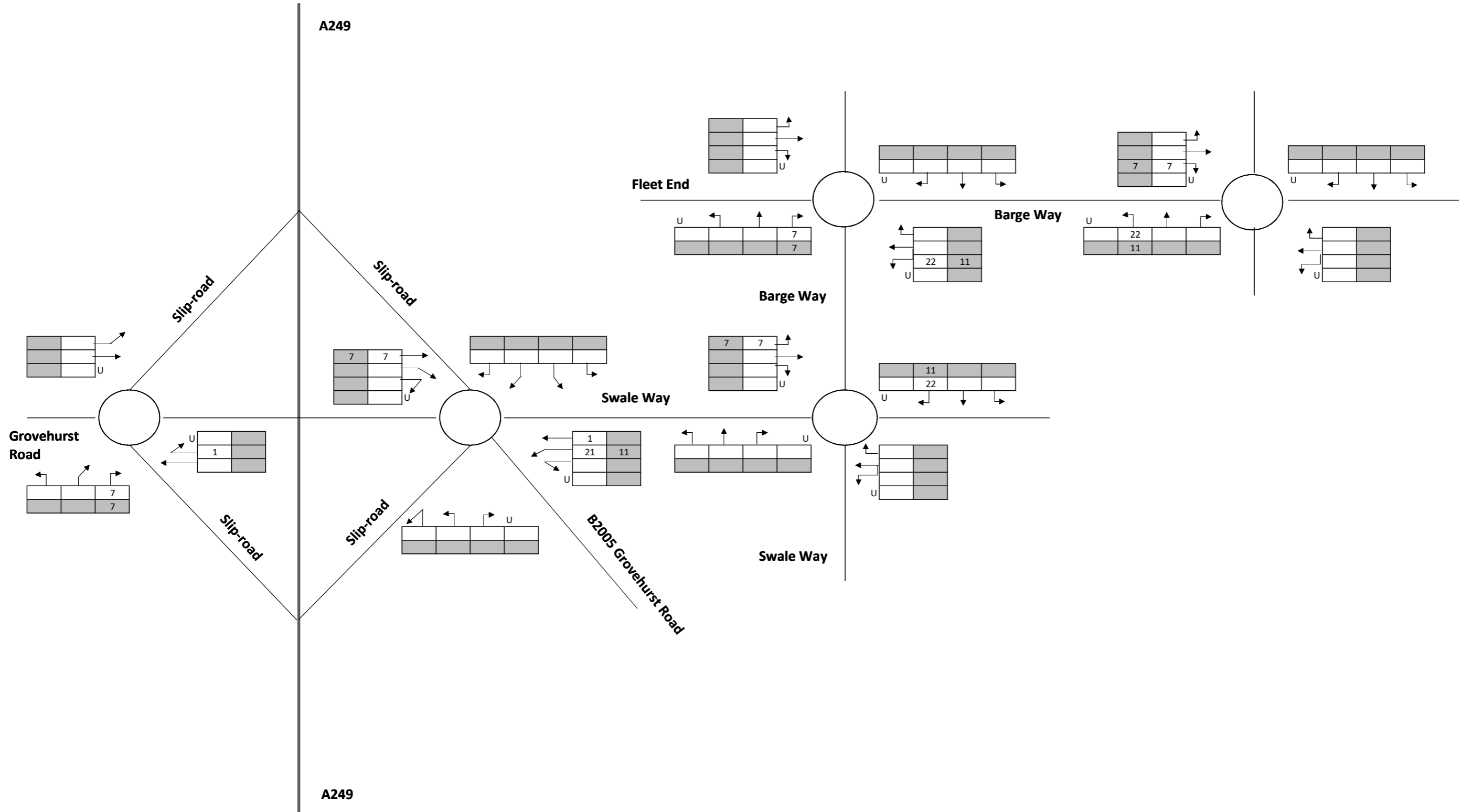




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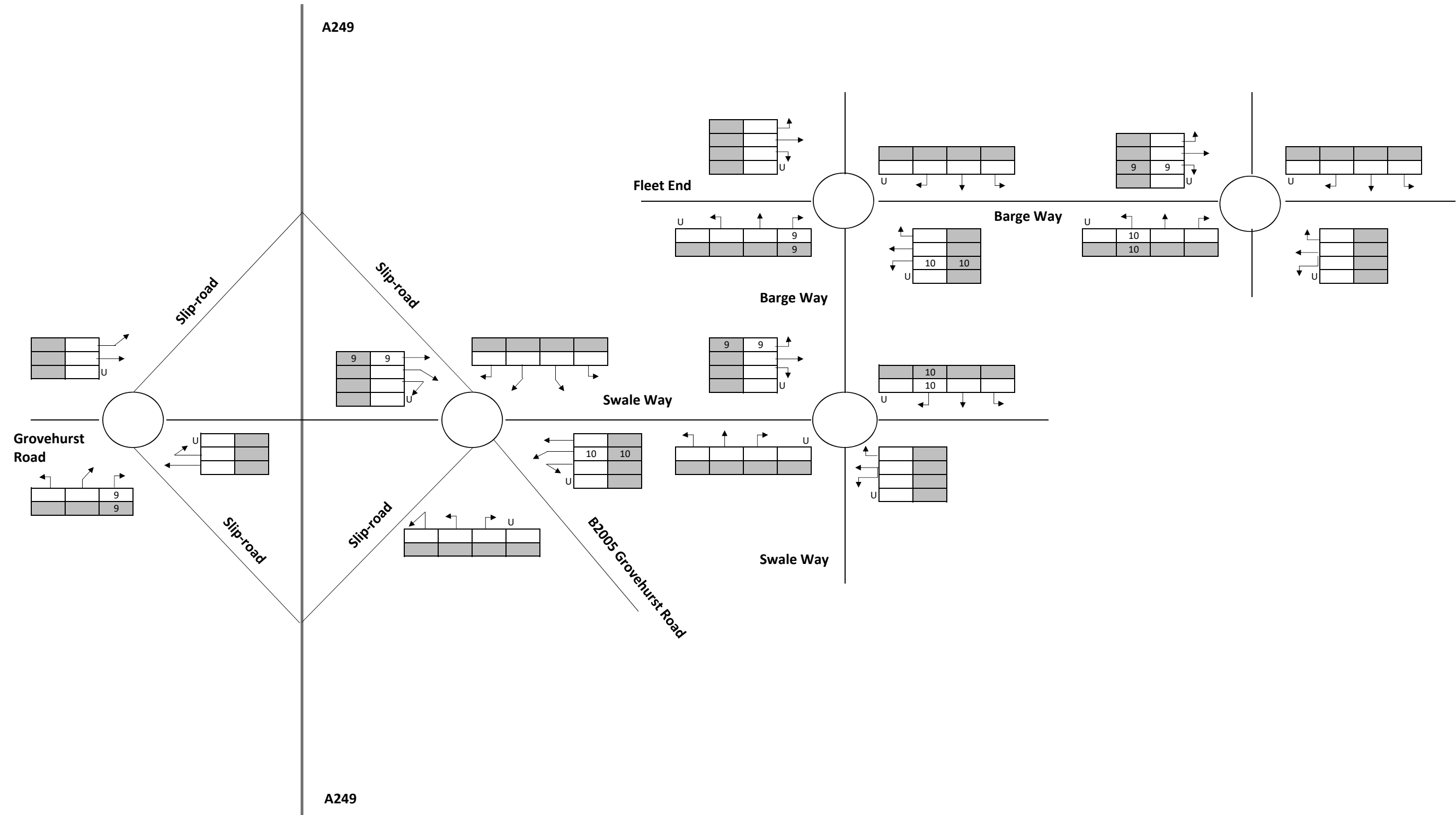
**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: **WKN Operational and K3 Operational AM Peak Hour (K3 (49.9 - 75MW) and WKN)**



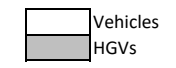
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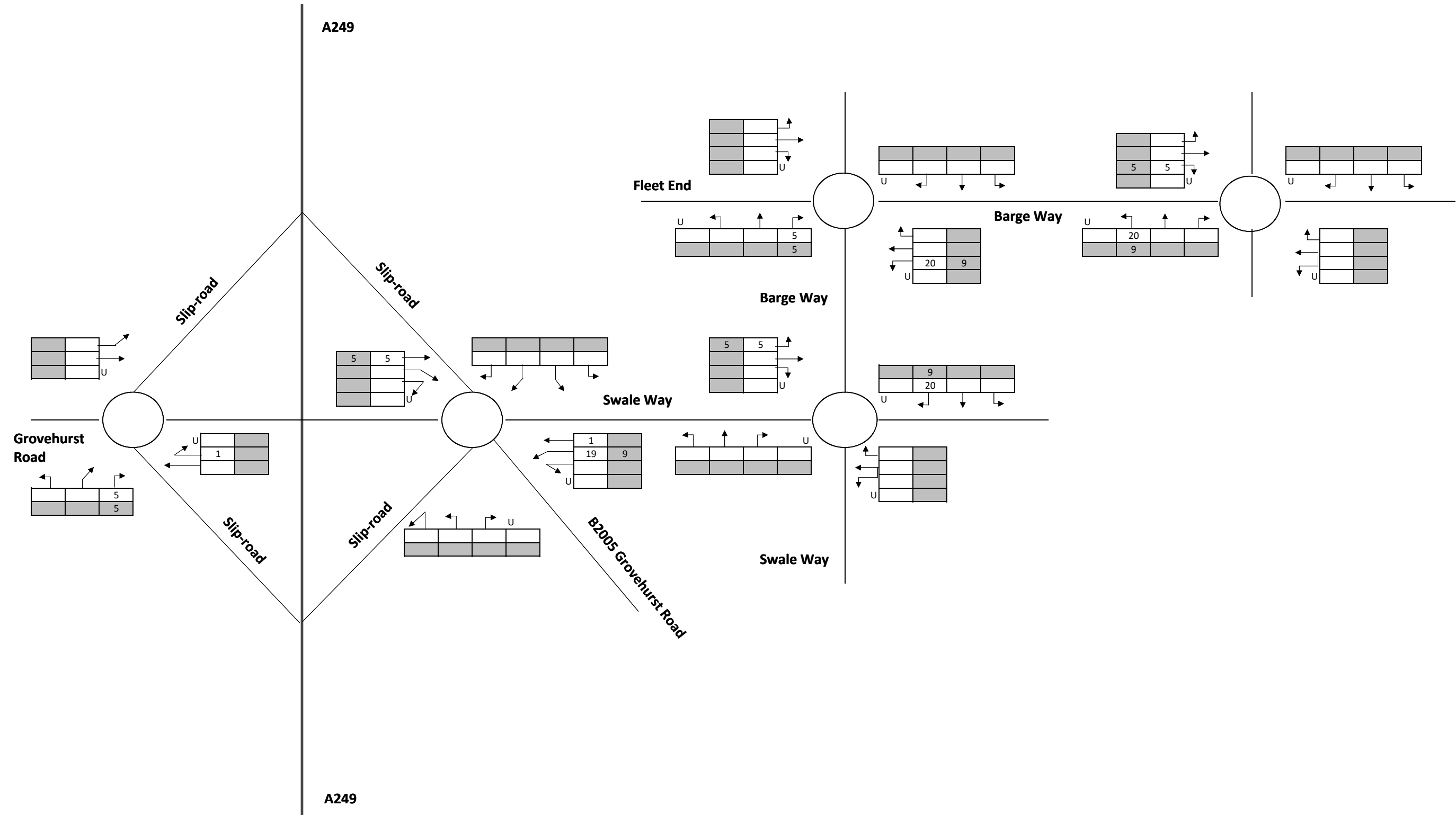
**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: **WKN Operational and K3 Operational PM Peak Hour (K3 (49.9 - 75MW) and WKN)**



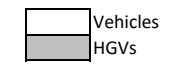
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**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: **WKN Operational AM Peak Hour**



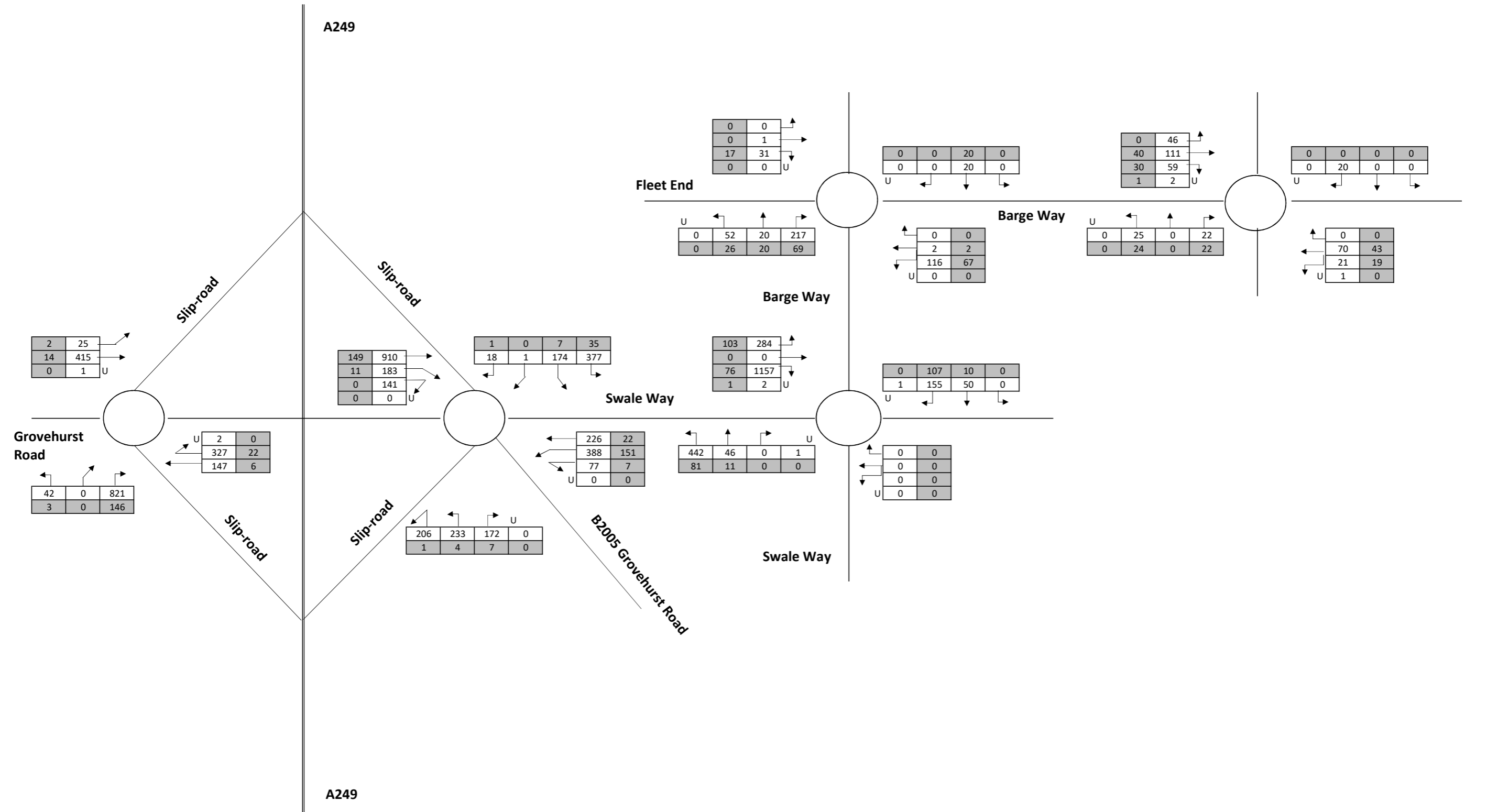
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**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: **WKN Operational PM Peak Hour**

**APPENDIX K: 2024 BASELINE AND K3 OPERATIONAL AM AND PM PEAK HOUR TRAFFIC FLOW DIAGRAMS**

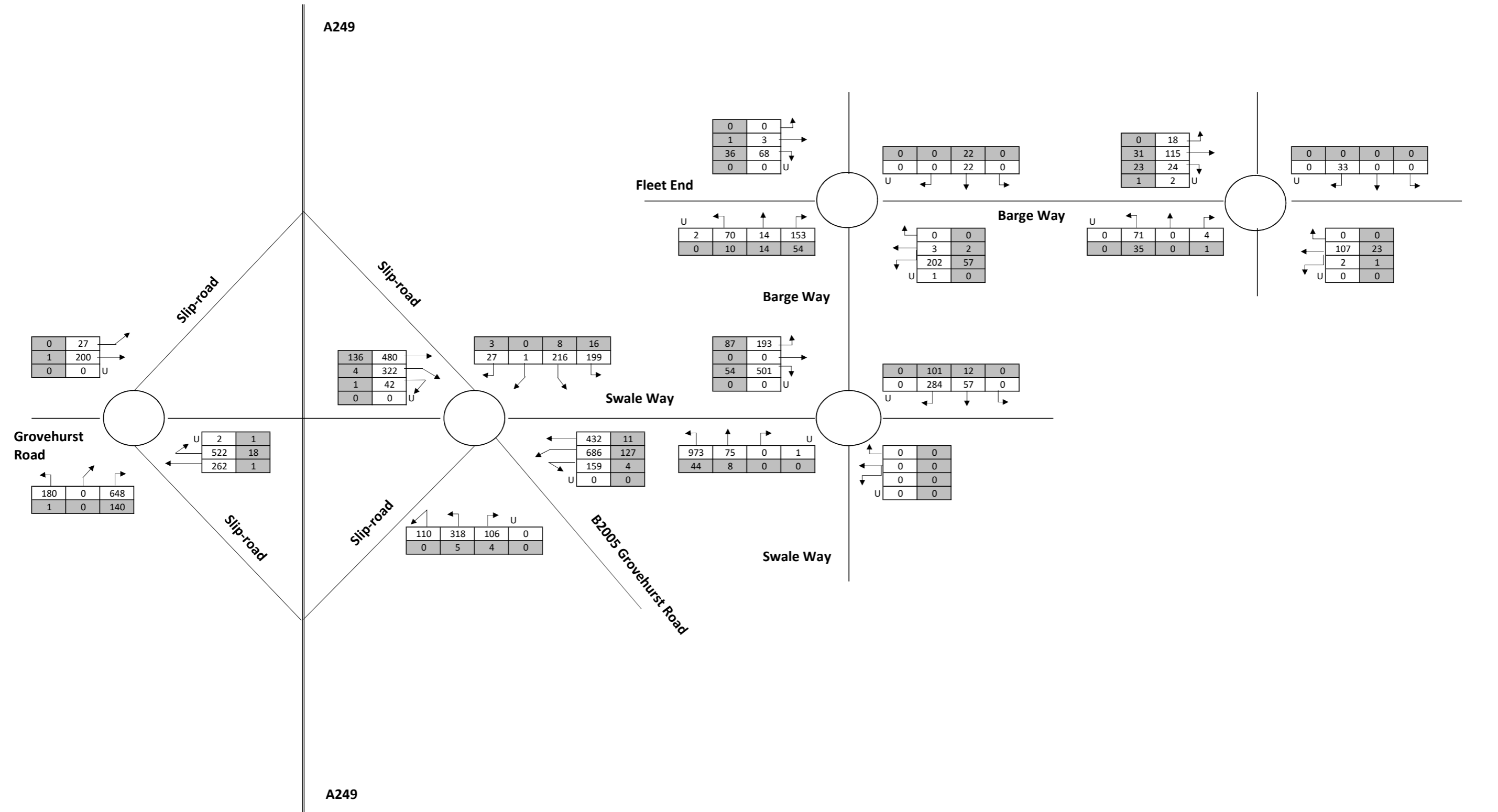
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	Vehicles
	HGVs

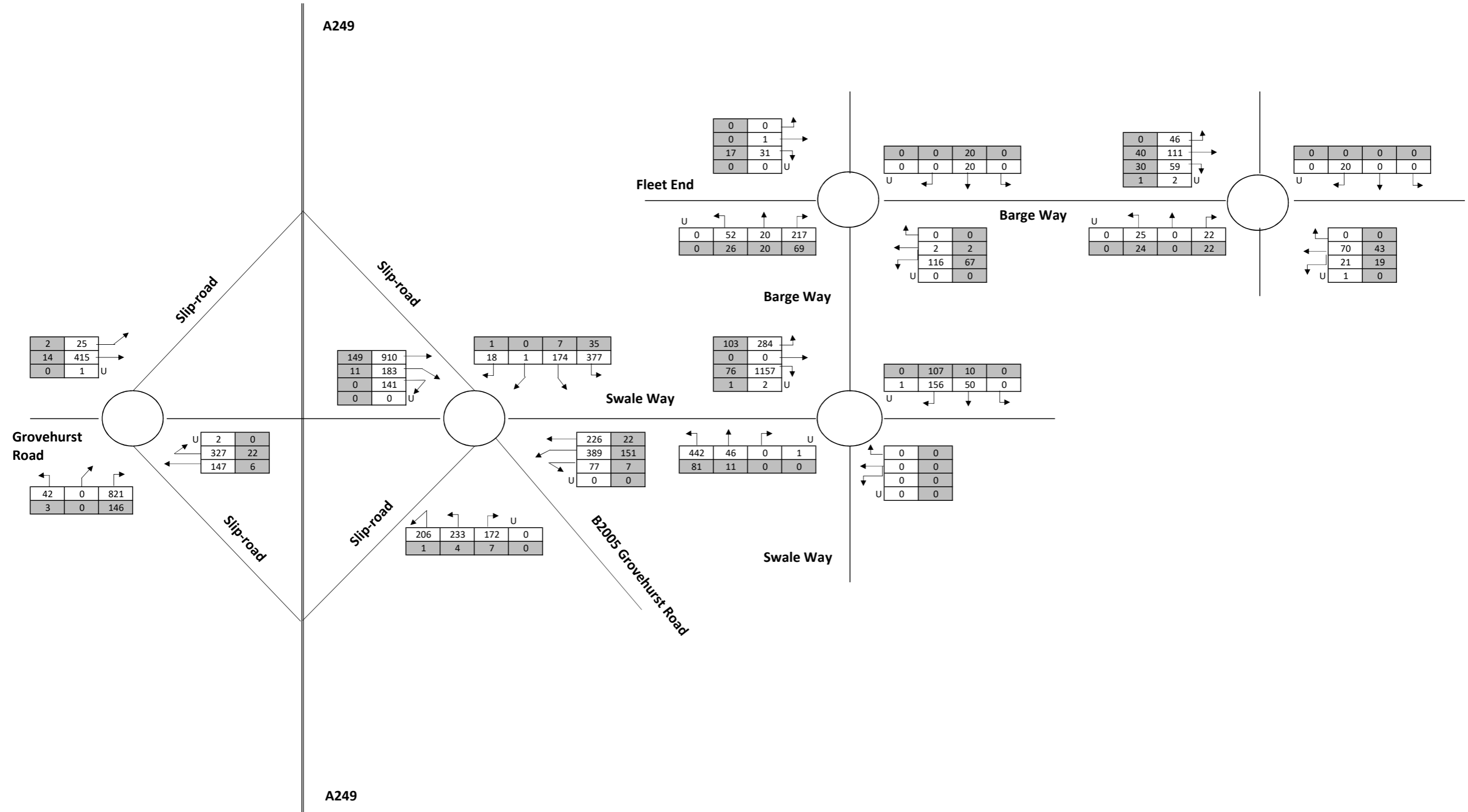
**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2024 Baseline + K3 Operational AM Peak Hour (K3 (0-75MW))



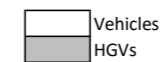
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	Vehicles
	HGVs

**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2024 Baseline + K3 Operational PM Peak Hour (K3 (0-75MW))

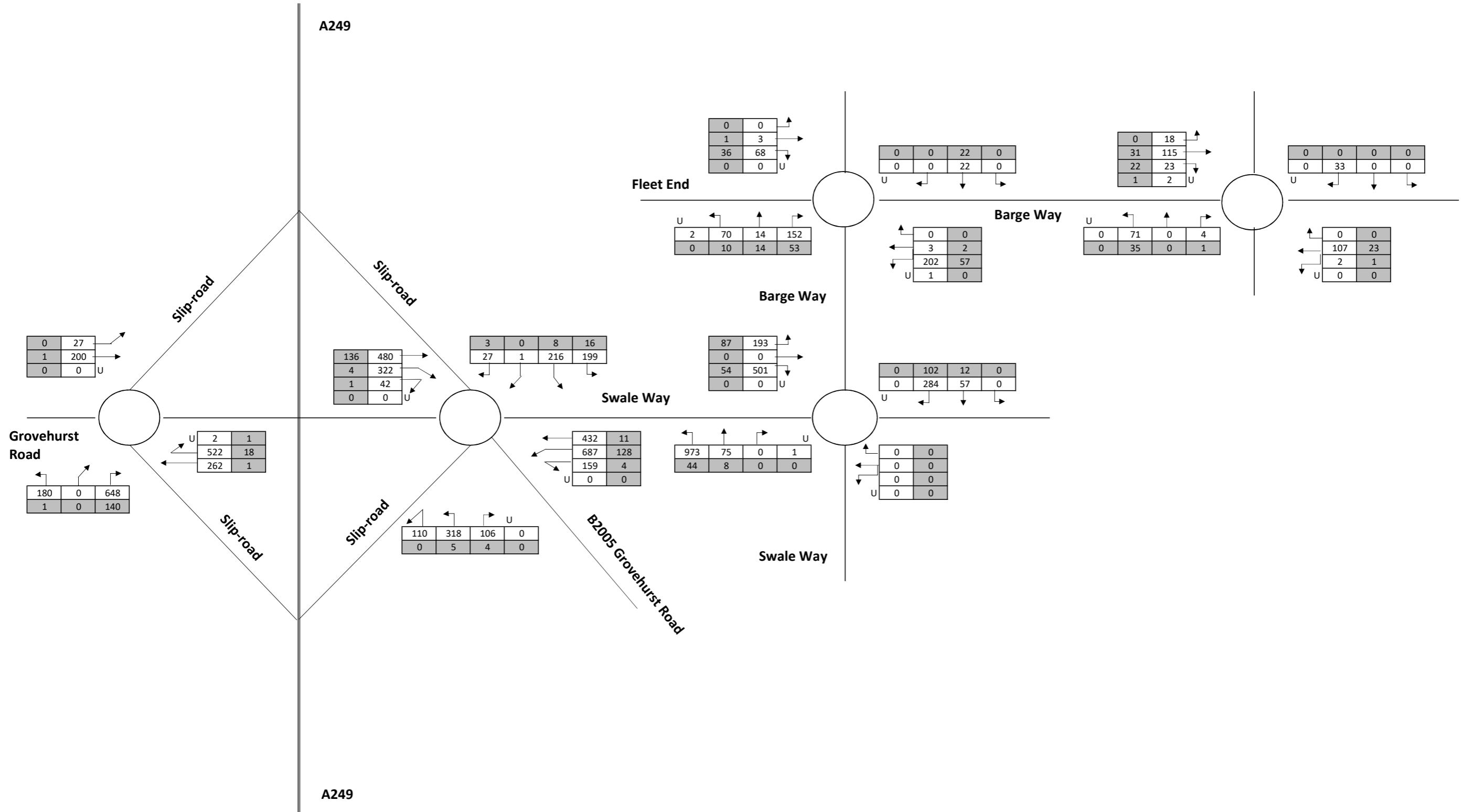


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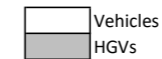


**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: **2024 Baseline + K3 Operational AM Peak Hour (K3 (49.9 - 75MW) and WKN)**





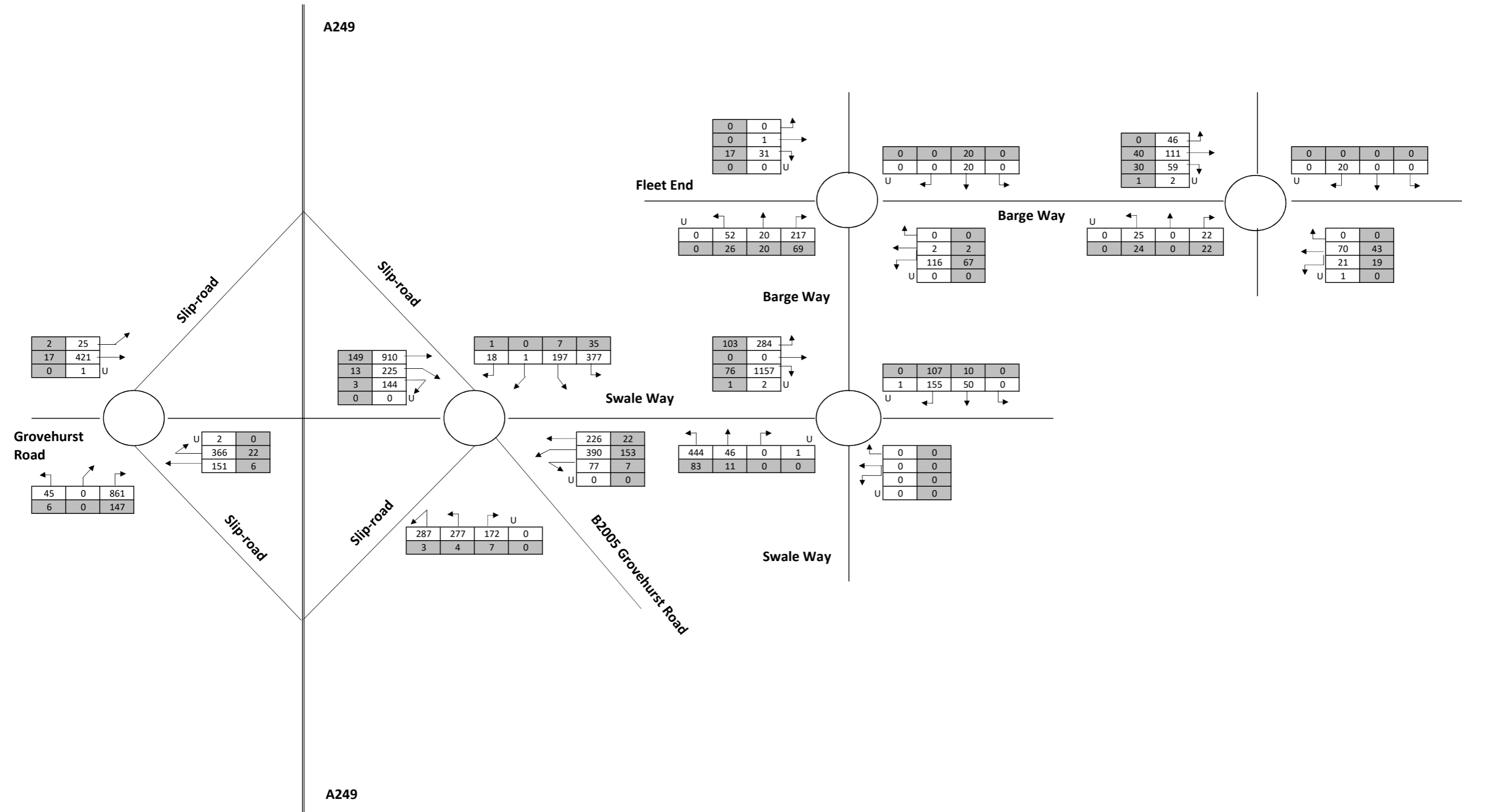
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**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2024 Baseline + K3 Operational PM Peak Hour (K3 (49.9 - 75MW) and WKN)

**APPENDIX L: 2024 BASELINE, K3 OPERATIONAL AND 2024 CUMULATIVE DEVELOPMENT AM AND PM PEAK HOUR TRAFFIC FLOW DIAGRAMS**

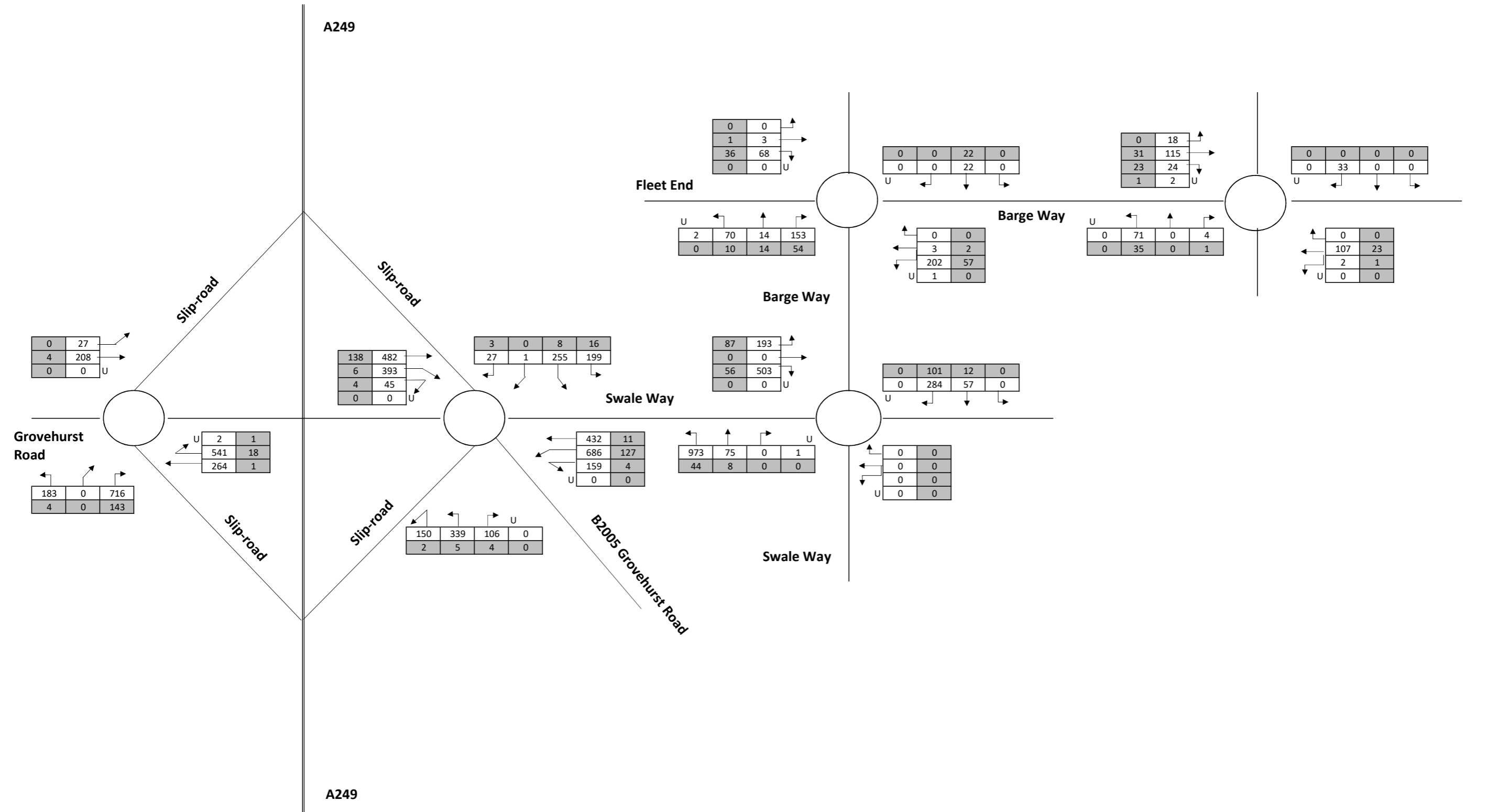
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□ Vehicles  
 ■ HGVs

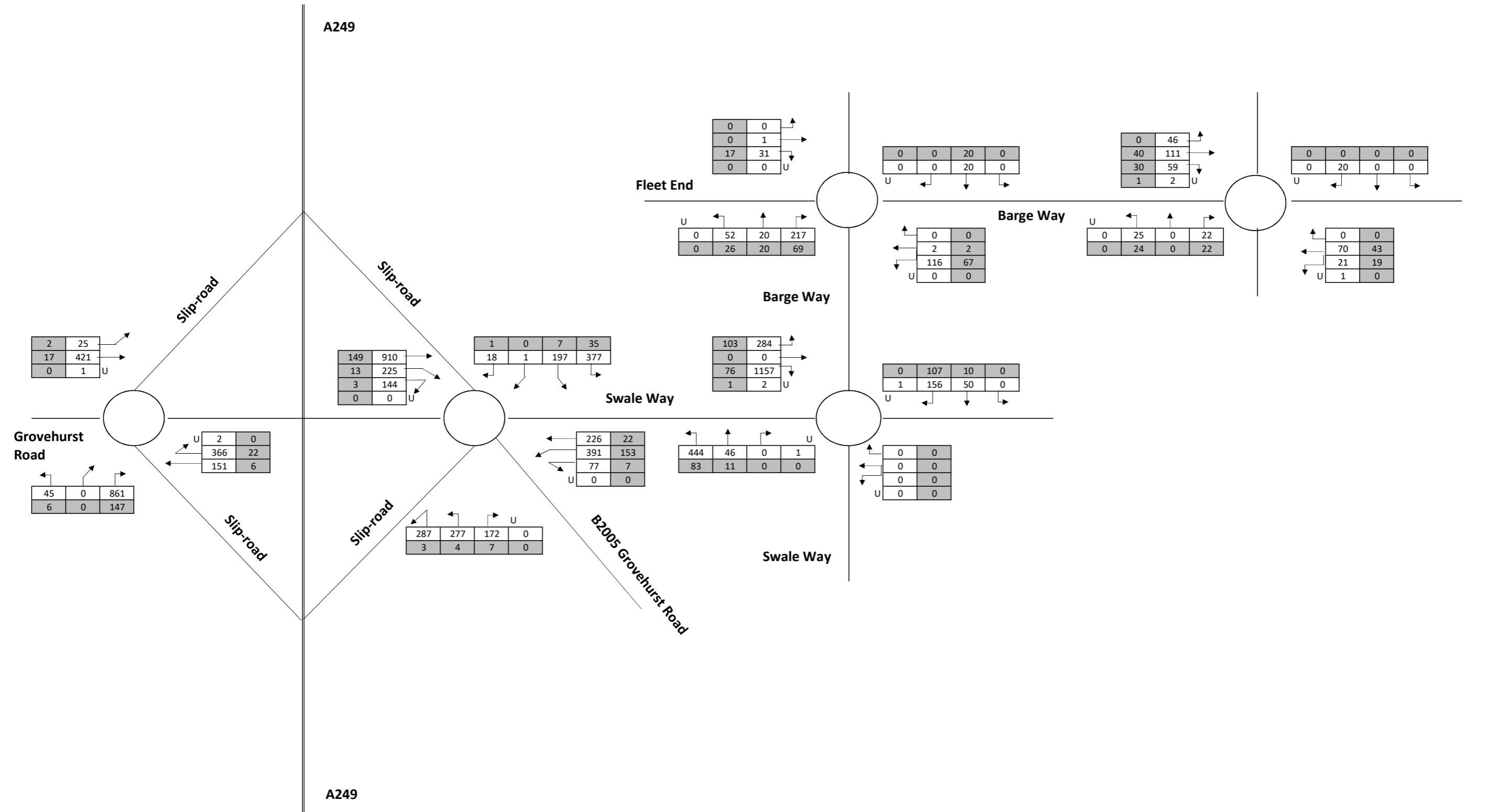
**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: **2024 Baseline + K3 Operational + 2024 Cumulative Development AM Peak Hour (K3 (0-75MW))**



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[White Box] Vehicles  
 [Grey Box] HGVs

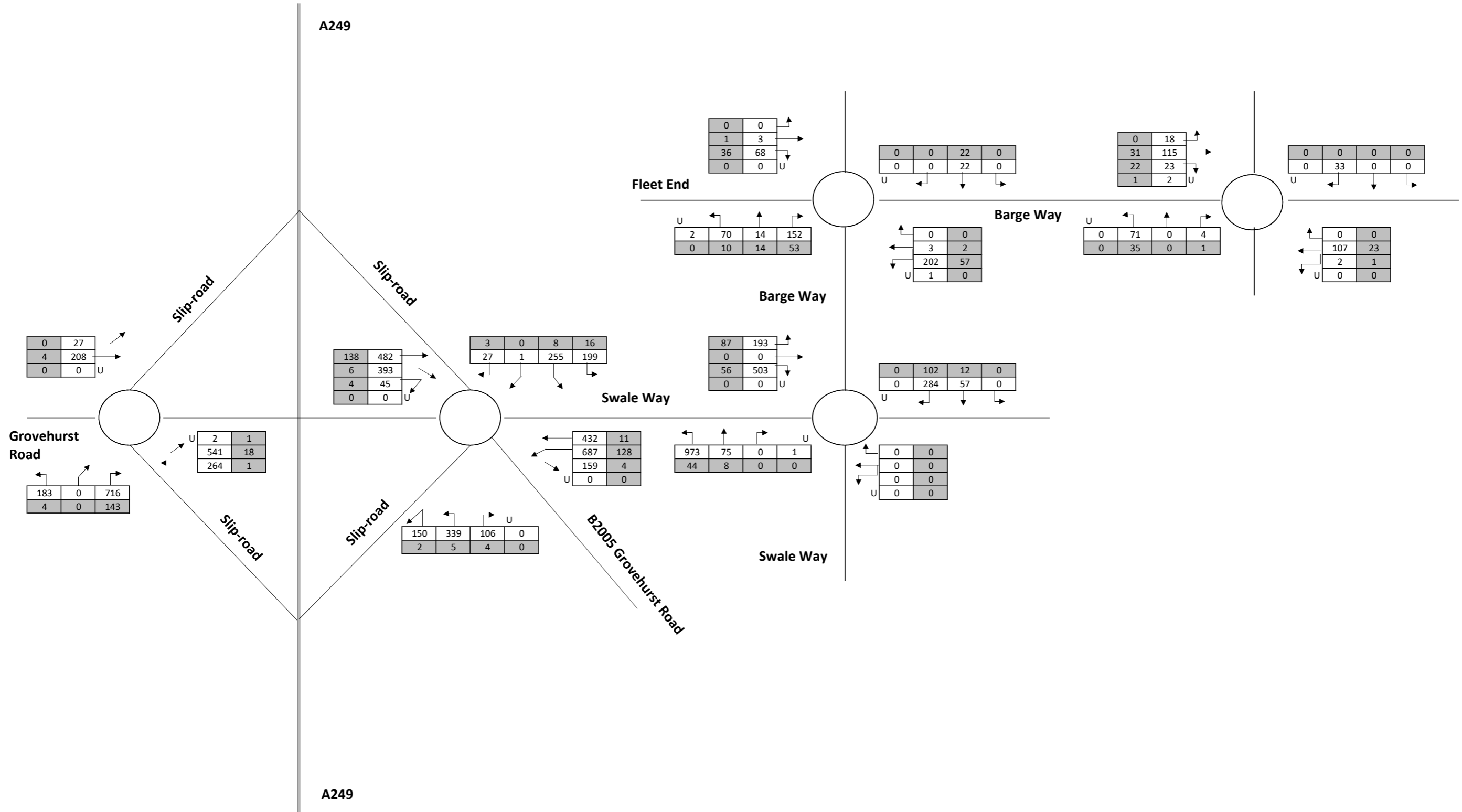
**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2024 Baseline + K3 Operational + 2024 Cumulative Development PM Peak Hour (K3 (0-75MW))



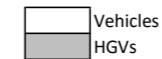
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 London, EC2Y 5DN  
 T: +44(0)20 7280 3300 E: transport@rpsgroup.com

□ Vehicles  
 ■ HGVs

**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2024 Baseline + K3 Operational + 2024 Cumulative Development AM Peak Hour (K3 (49.9 - 75MW) and WKN)



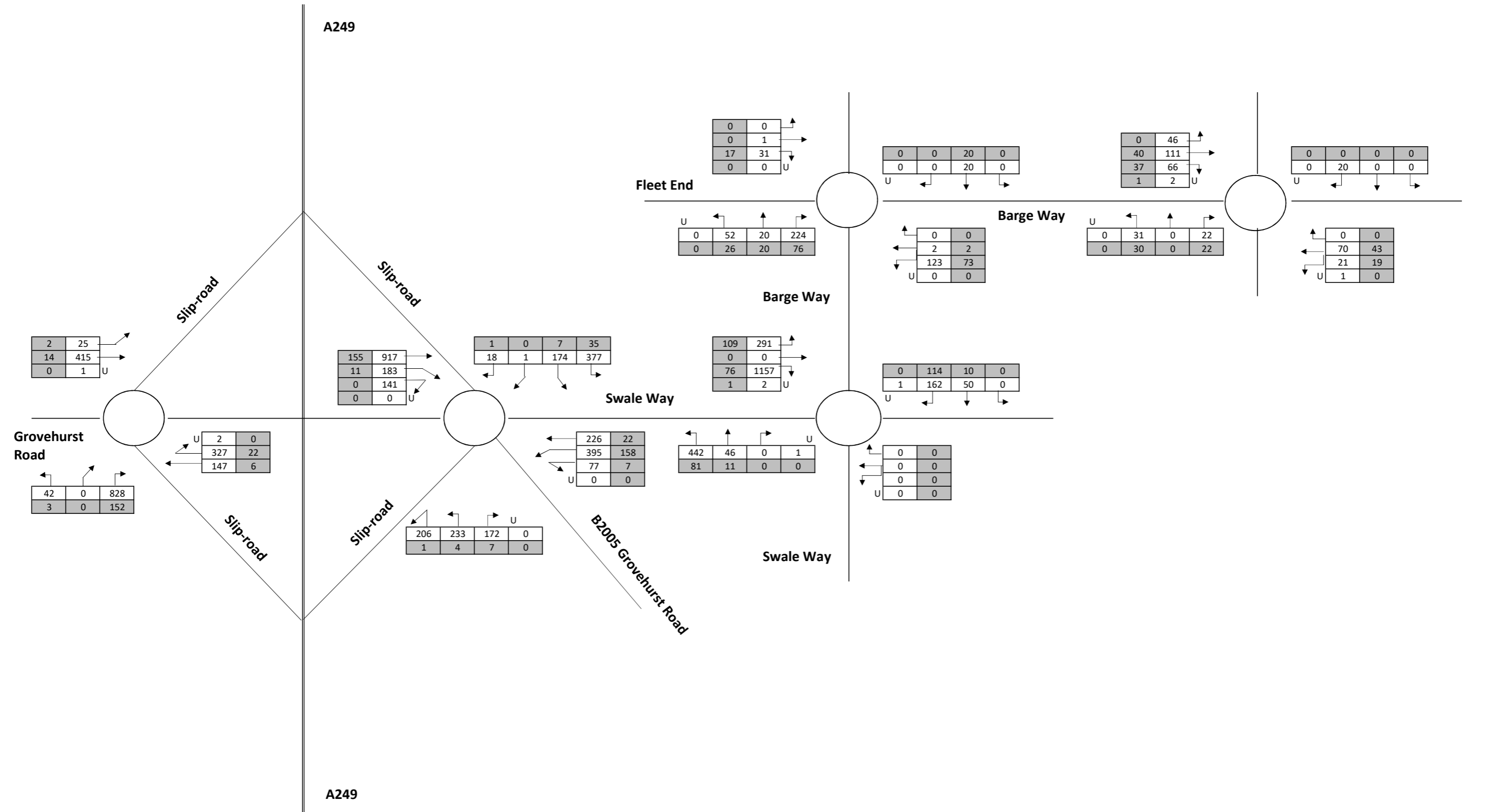
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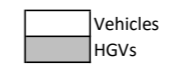
**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: 2024 Baseline + K3 Operational + 2024 Cumulative Development PM Peak Hour (K3 (49.9 - 75MW) and WKN)

**APPENDIX M: 2024 BASELINE AND WKN OPERATIONAL AM  
AND PM PEAK HOUR TRAFFIC FLOW DIAGRAMS**

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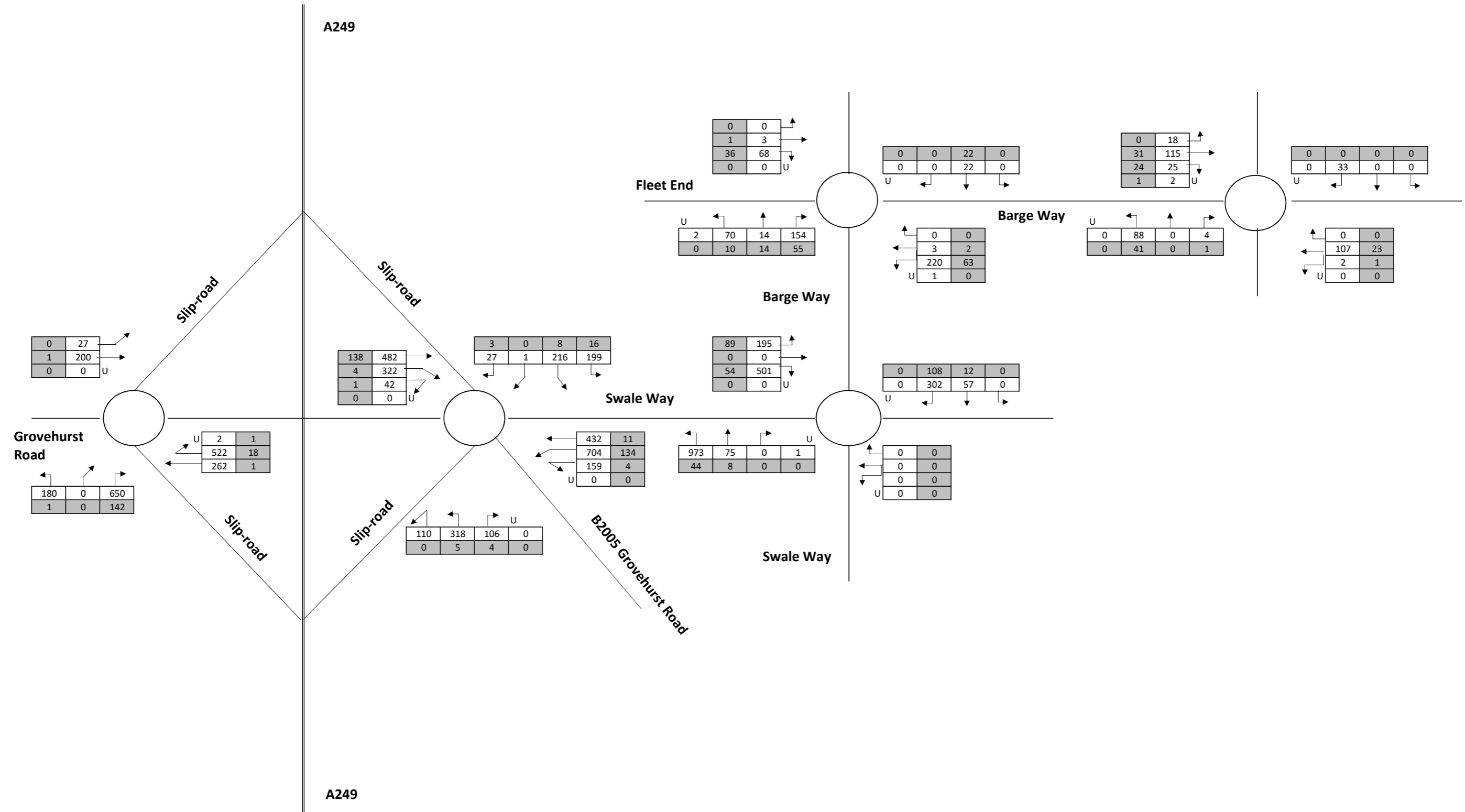


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 T: +44(0)20 7280 3300 E: transport@rpsgroup.com



**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2024 Baseline + WKN Operational AM Peak Hour (K3 (49.9 - 75MW) and WKN)





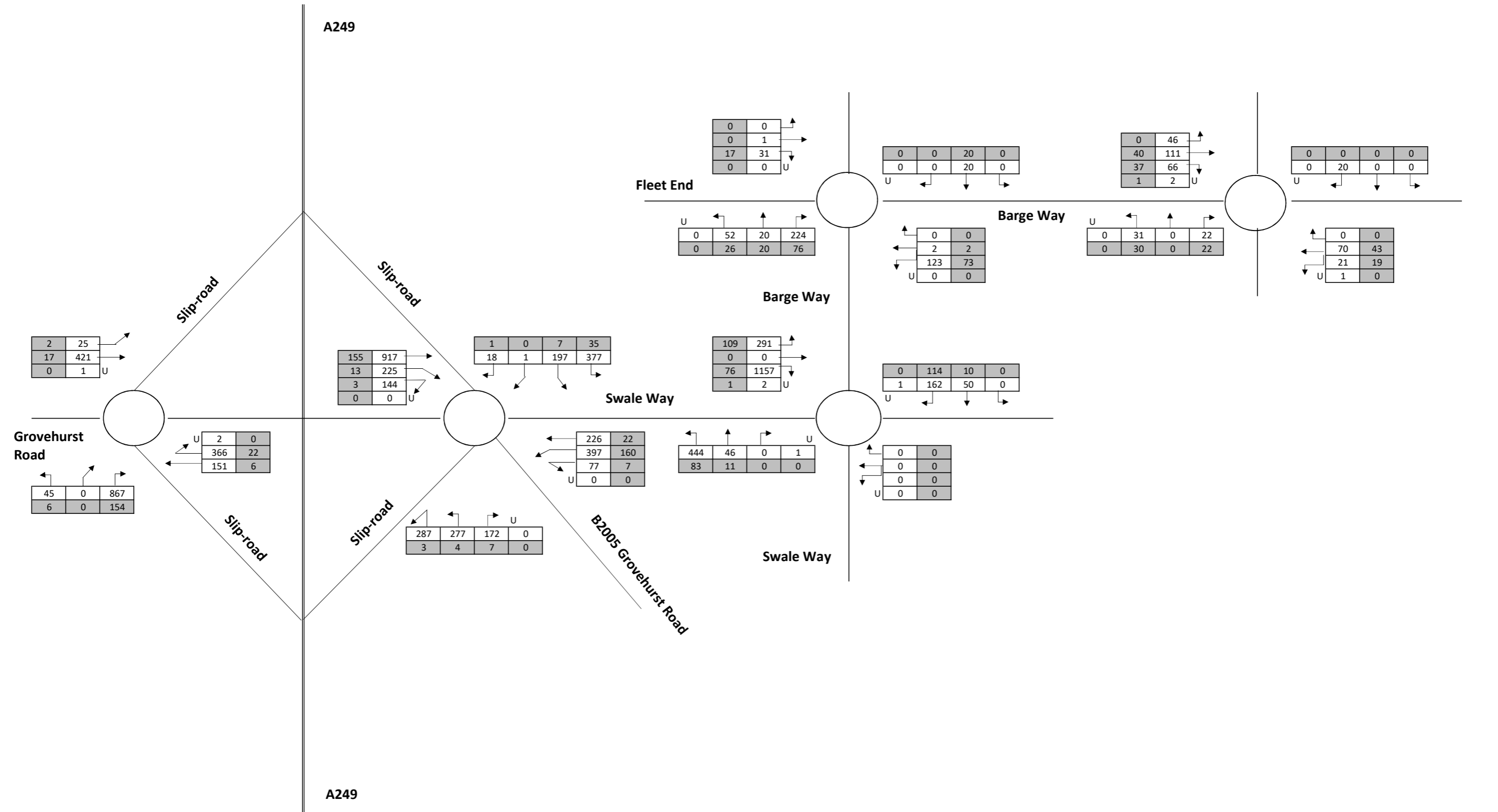
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 T: +44(0)20 7280 3300 E: transport@rpsgroup.com

	Vehicles
	HGVs

**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: **2024 Baseline + WKN Operational PM Peak Hour (K3 (49.9 - 75MW) and WKN)**

**APPENDIX N: 2024 BASELINE, WKN OPERATIONAL AND 2024 CUMULATIVE DEVELOPMENT AM AND PM PEAK HOUR TRAFFIC FLOW DIAGRAMS**

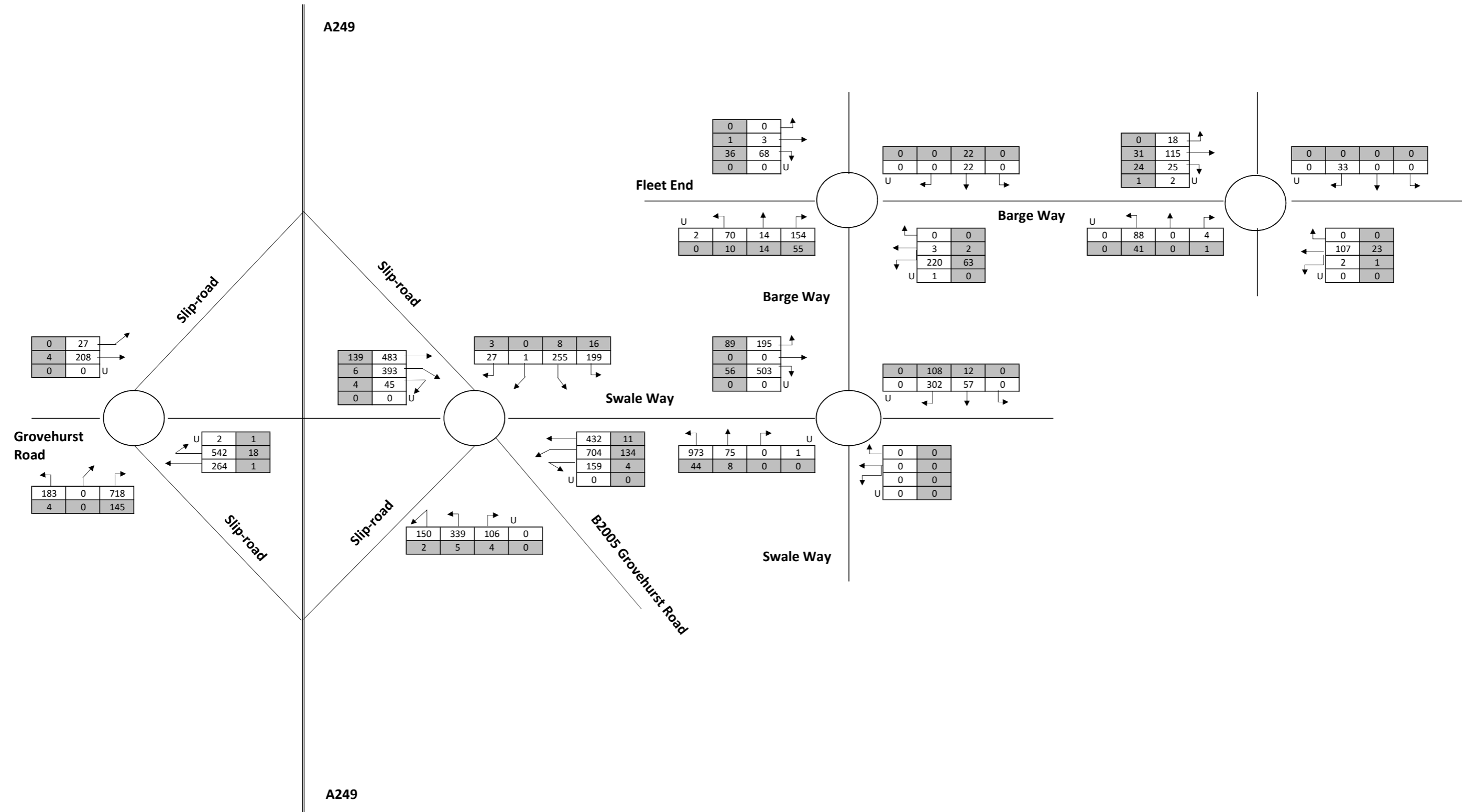
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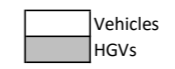
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<span style="display:inline-block; width:10px; height:10px; background-color:white; border:1px solid black;"></span>	Vehicles
<span style="display:inline-block; width:10px; height:10px; background-color:grey; border:1px solid black;"></span>	HGVs

**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2024 Baseline + WKN Operational + 2024 Cumulative Development AM Peak Hour (K3 (49.9 - 75MW) and WKN)



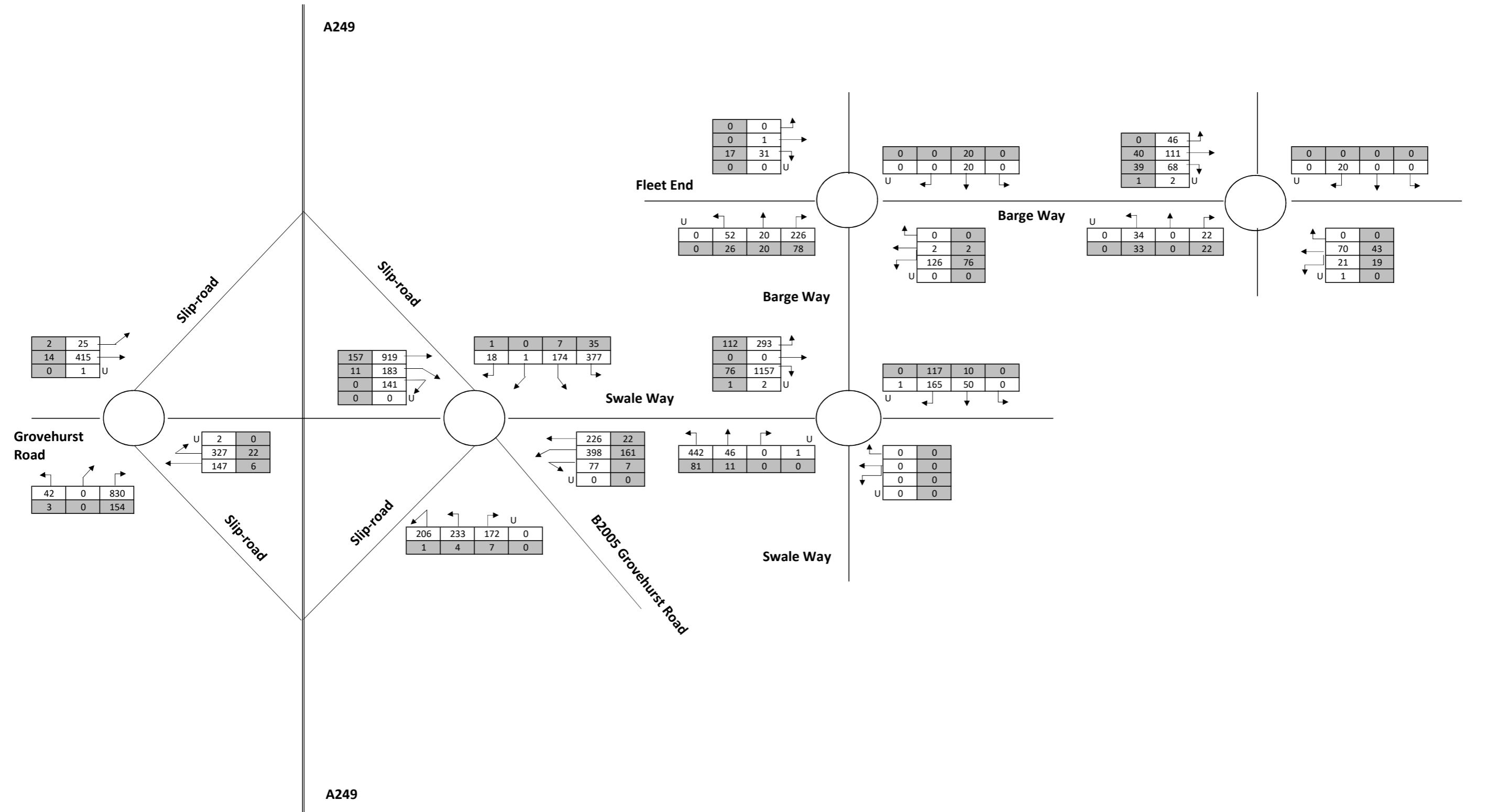
140 London Wall  
 London, EC2Y 5DN  
 T: +44(0)20 7280 3300 E: transport@rpsgroup.com



**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2024 Baseline + WKN Operational + 2024 Cumulative Development PM Peak Hour (K3 (49.9 - 75MW) and WKN)

**APPENDIX O: 2024 BASELINE, K3 OPERATIONAL AND WKN OPERATIONAL AM AND PM PEAK HOUR TRAFFIC FLOW DIAGRAMS**

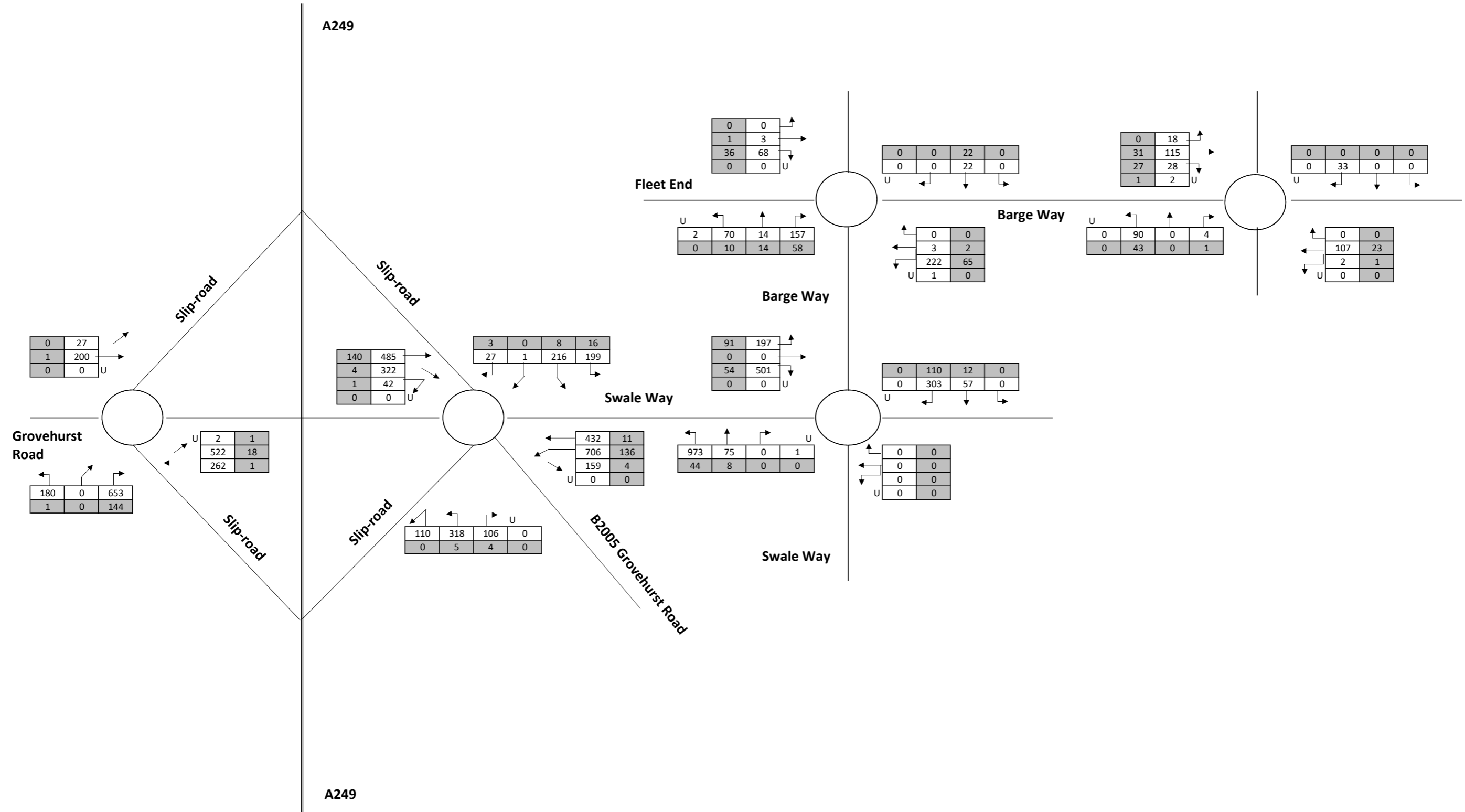
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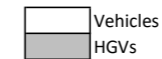
140 London Wall  
 London, EC2Y 5DN  
 T: +44(0)20 7280 3300 E: transport@rpsgroup.com

	Vehicles
	HGVs

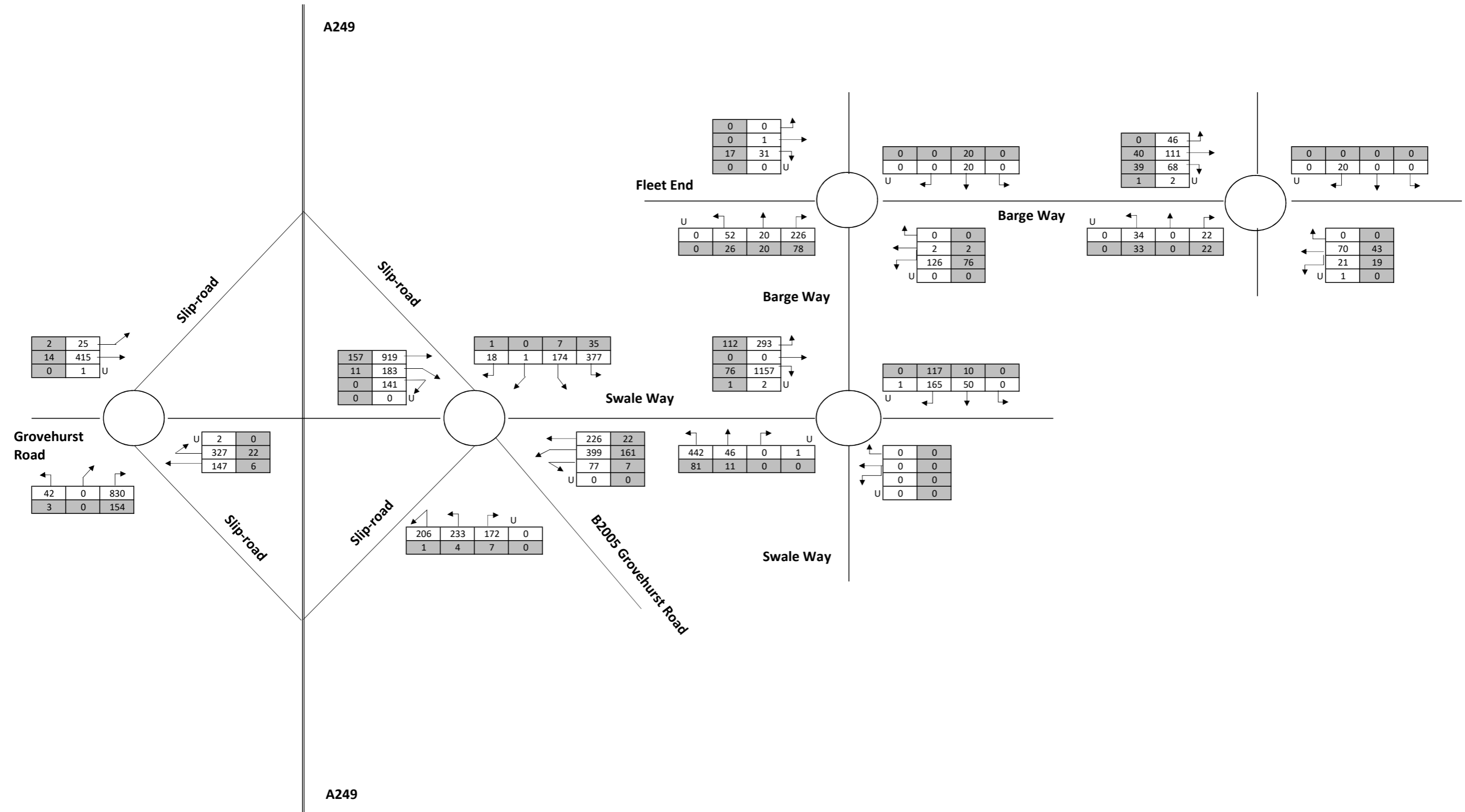
**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: **2024 Baseline + K3 and WKN Operational AM Peak Hour (K3 (0-75MW))**



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**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: 2024 Baseline + K3 and WKN Operational PM Peak Hour (K3 (0-75MW))

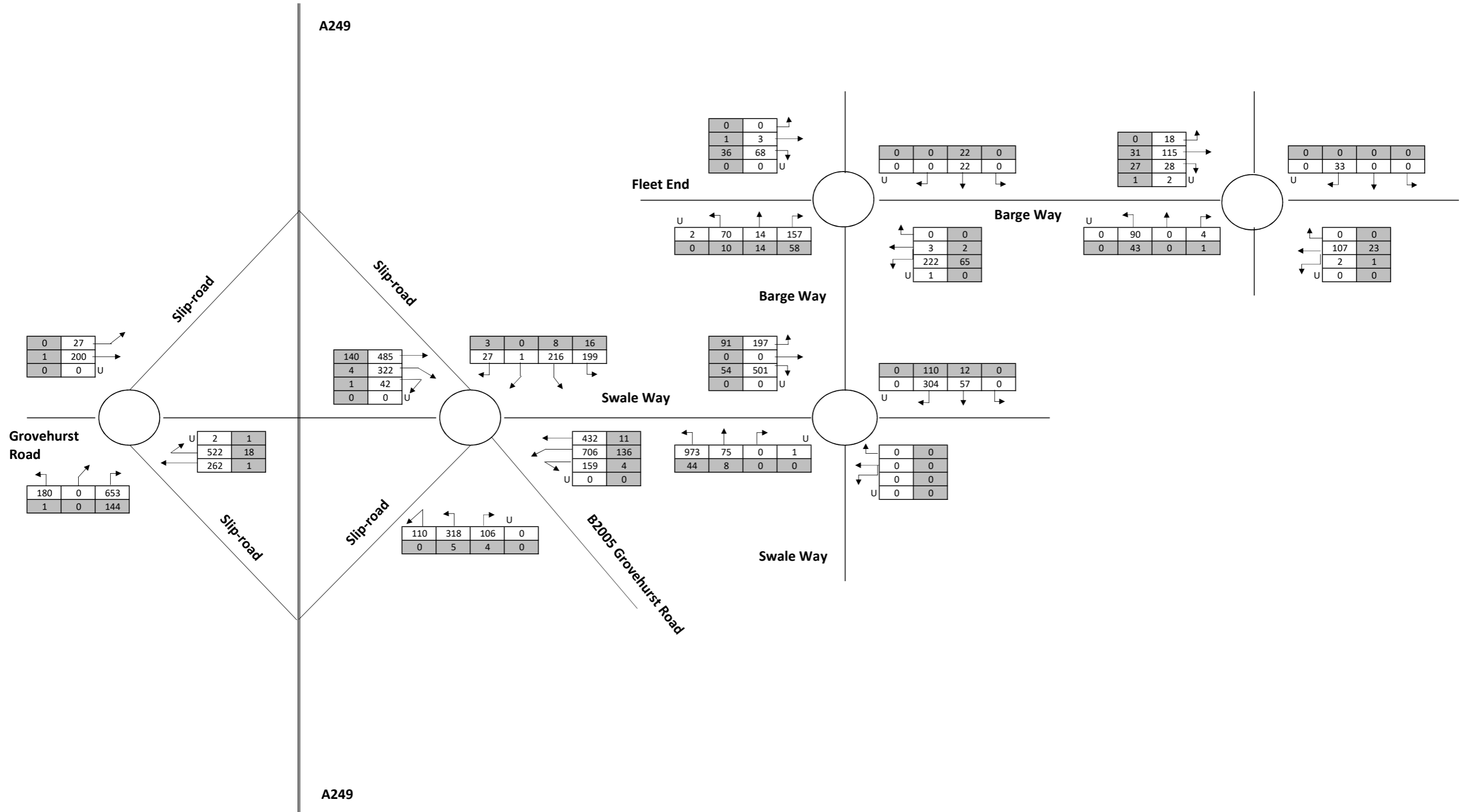


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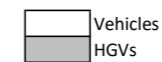
	Vehicles
	HGVs

**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2024 Baseline + K3 and WKN Operational AM Peak Hour (K3 (49.9 - 75MW) and WKN)





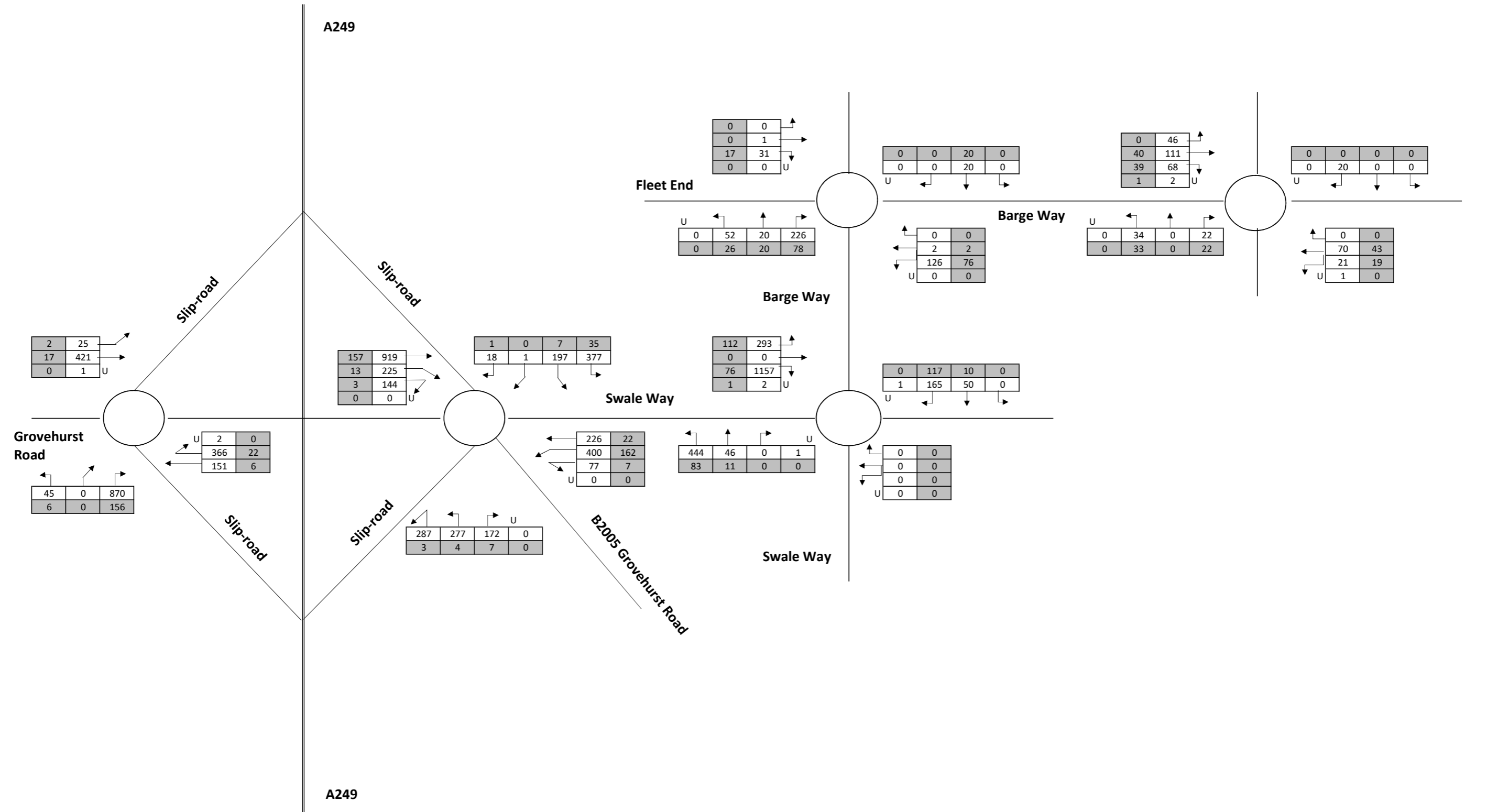
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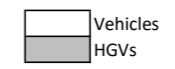
**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: 2024 Baseline + K3 and WKN Operational PM Peak Hour (K3 (49.9 - 75MW) and WKN)

**APPENDIX P: 2024 BASELINE, K3 OPERATIONAL, WKN OPERATIONAL AND 2024 CUMULATIVE DEVELOPMENT AM AND PM PEAK HOUR TRAFFIC FLOW DIAGRAMS**

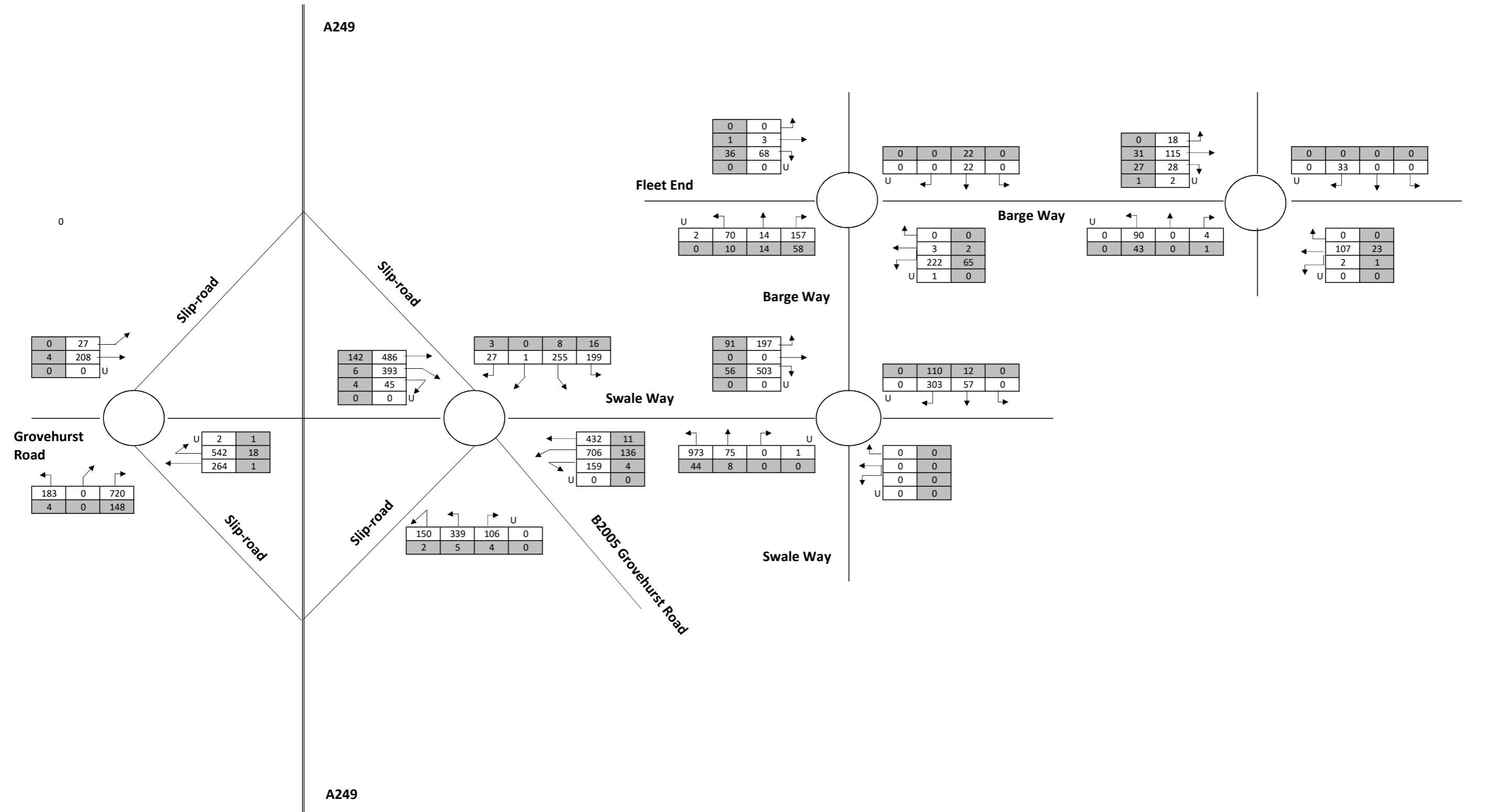
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140 London Wall  
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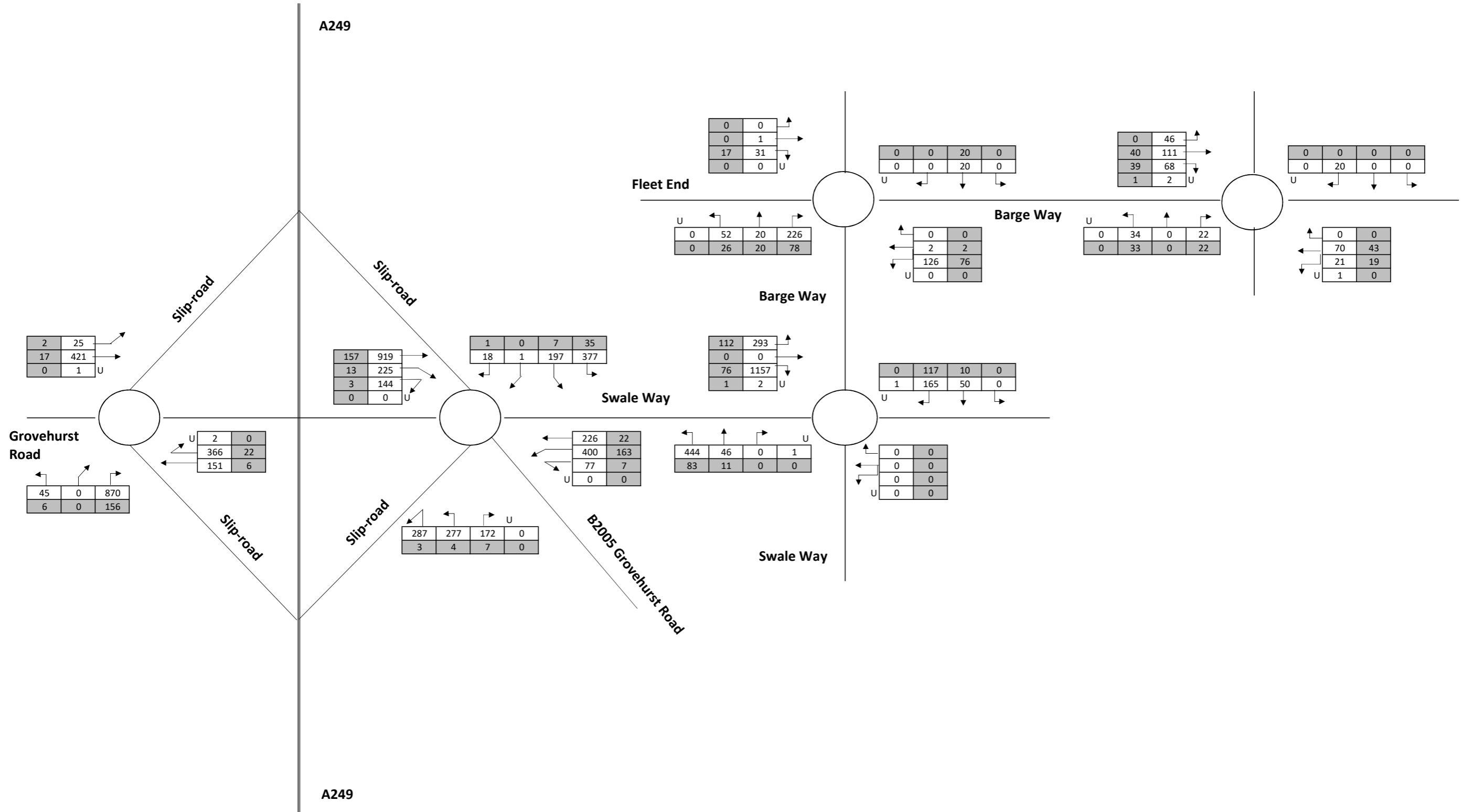
**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: 2024 Baseline + K3 and WKN Operational + 2024 Cumulative Development AM Peak Hour (K3 (0-75MW))



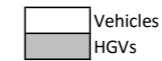
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	Vehicles
	HGVs

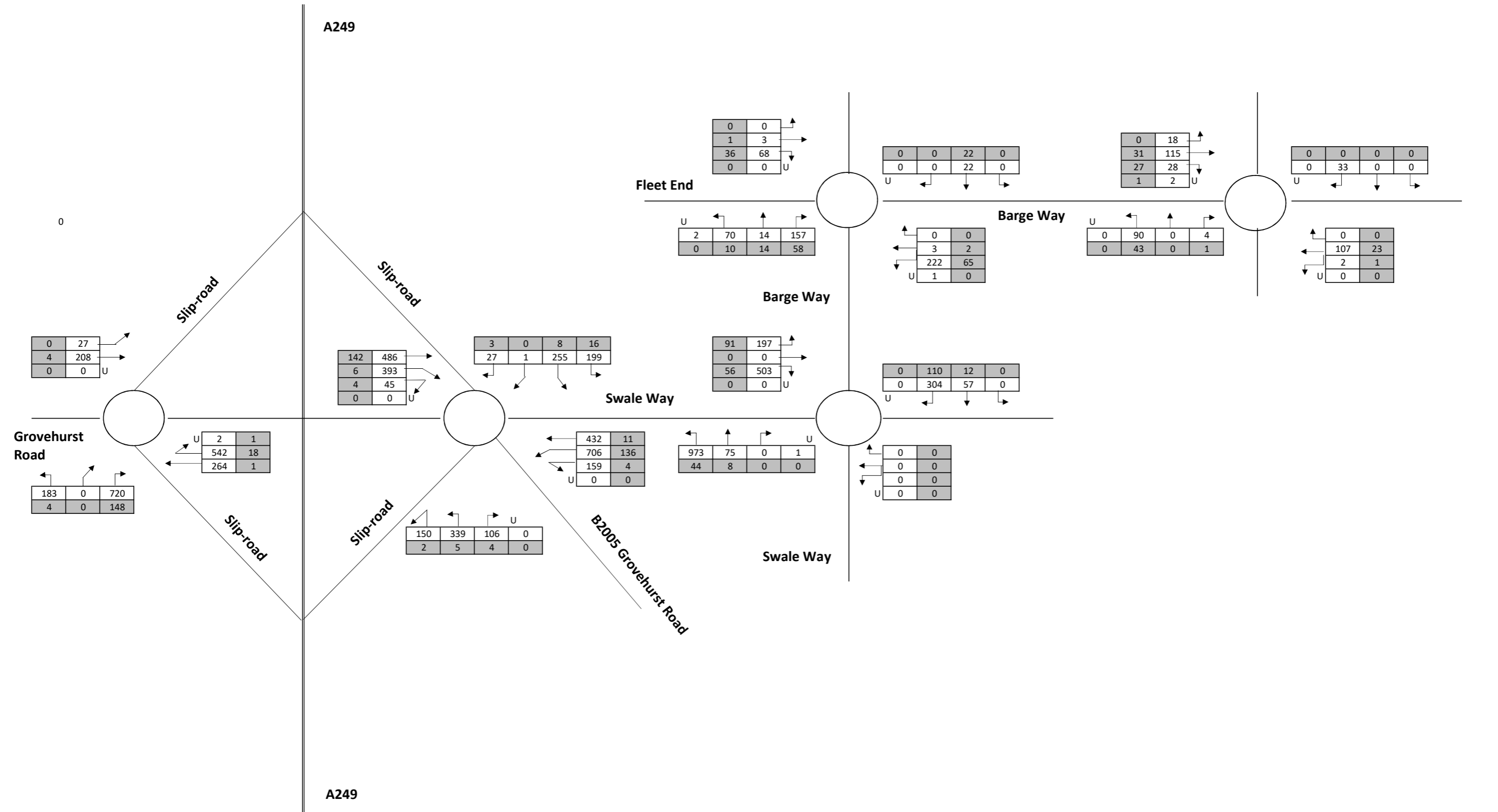
**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2024 Baseline + K3 and WKN Operational + 2024 Cumulative Development PM Peak Hour (K3 (0-75MW))



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**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2024 Baseline + K3 and WKN Operational + 2024 Cumulative Development AM Peak Hour (K3 (49.9 - 75MW) and WKN)



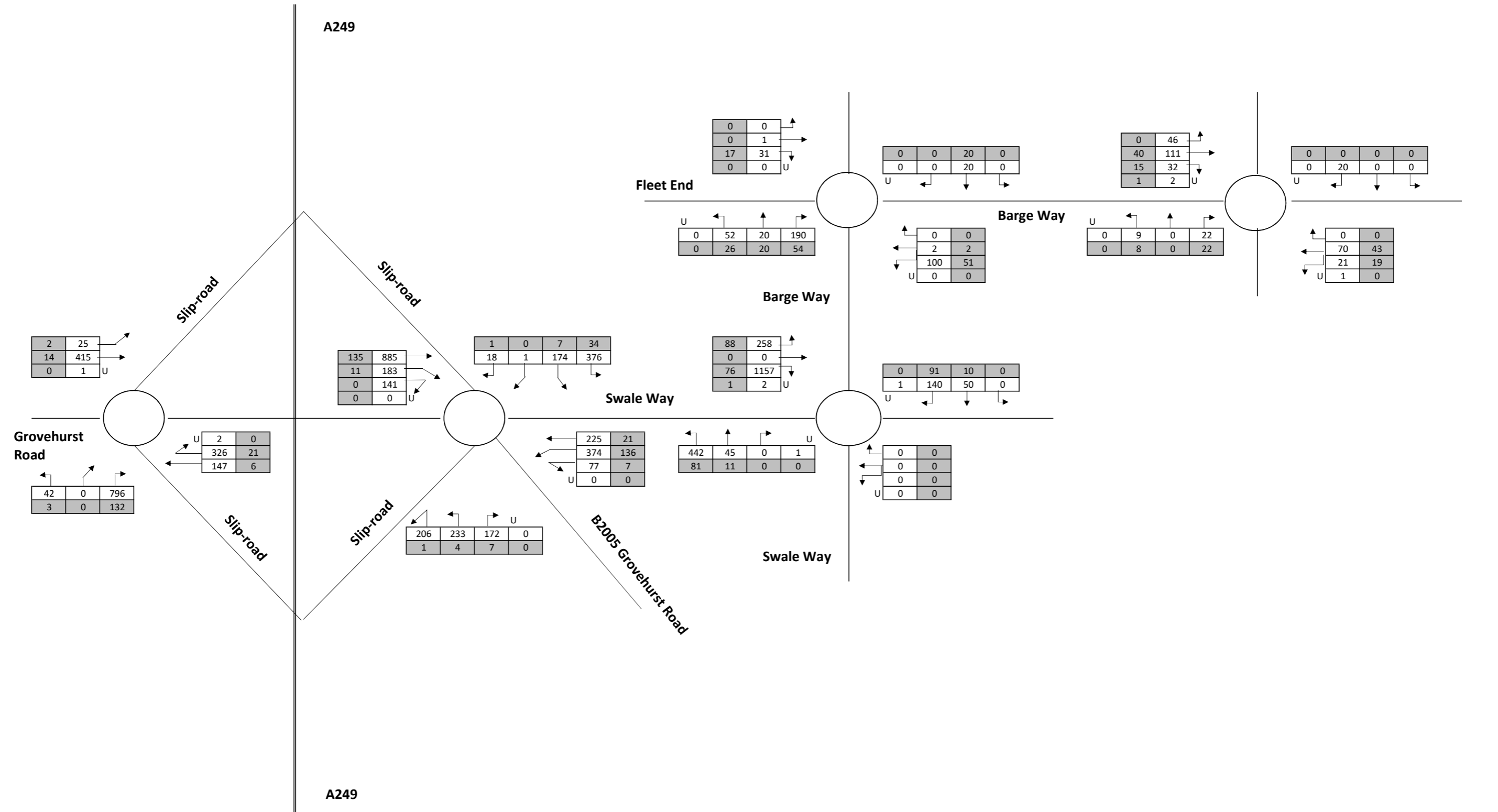
140 London Wall  
 London, EC2Y 5DN  
 T: +44(0)20 7280 3300 E: transport@rpsgroup.com

[White Box] Vehicles  
 [Grey Box] HGVs

**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2024 Baseline + K3 and WKN Operational + 2024 Cumulative Development PM Peak Hour (K3 (49.9 - 75MW) and WKN)

**APPENDIX Q: 2031 BASELINE AM AND PM PEAK HOUR  
TRAFFIC FLOW DIAGRAMS**

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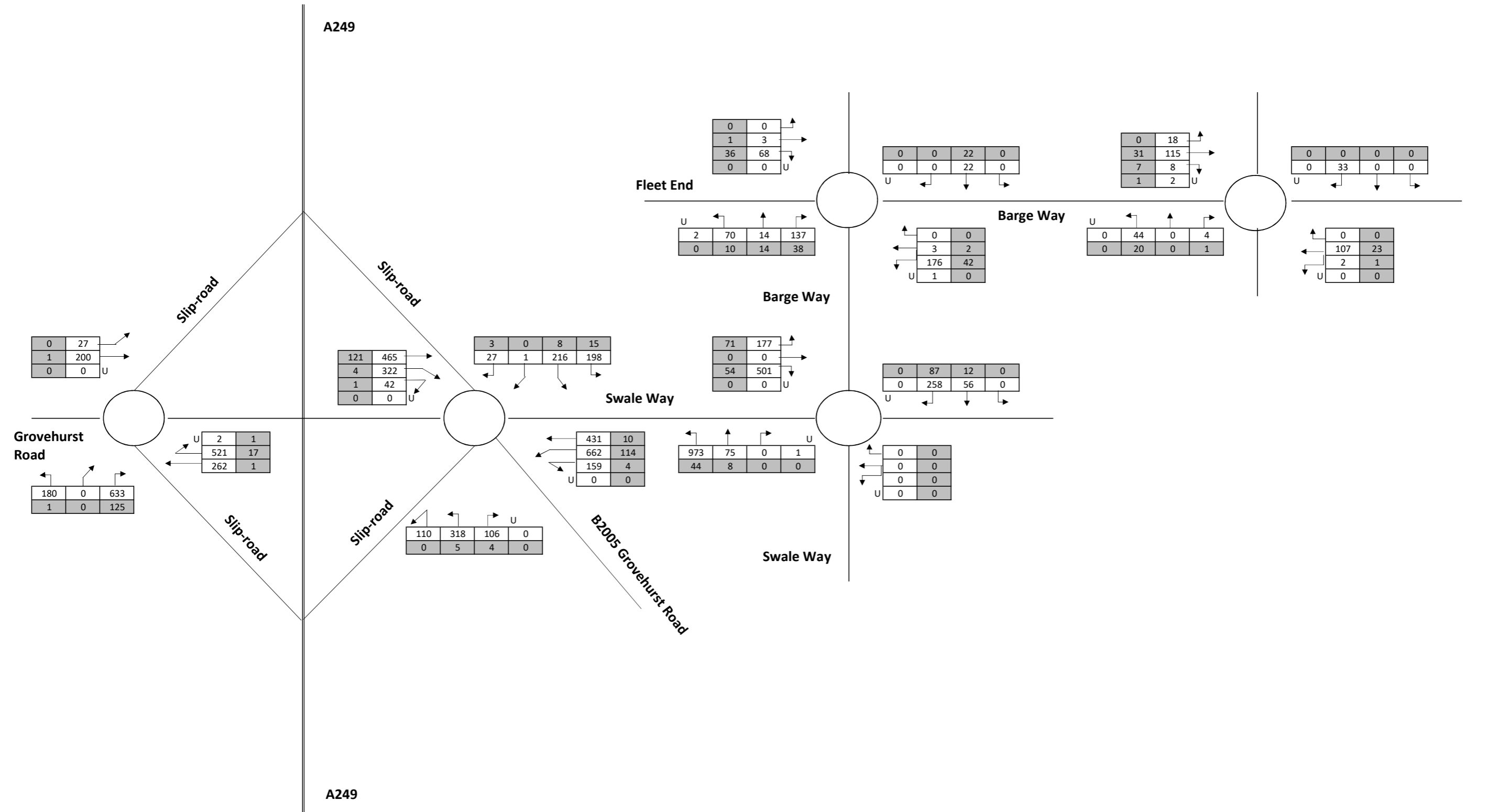


140 London Wall  
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 T: +44(0)20 7280 3300 E: transport@rpsgroup.com

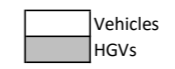
	Vehicles
	HGVs

**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2031 Baseline AM Peak Hour (K3 (0-75MW))

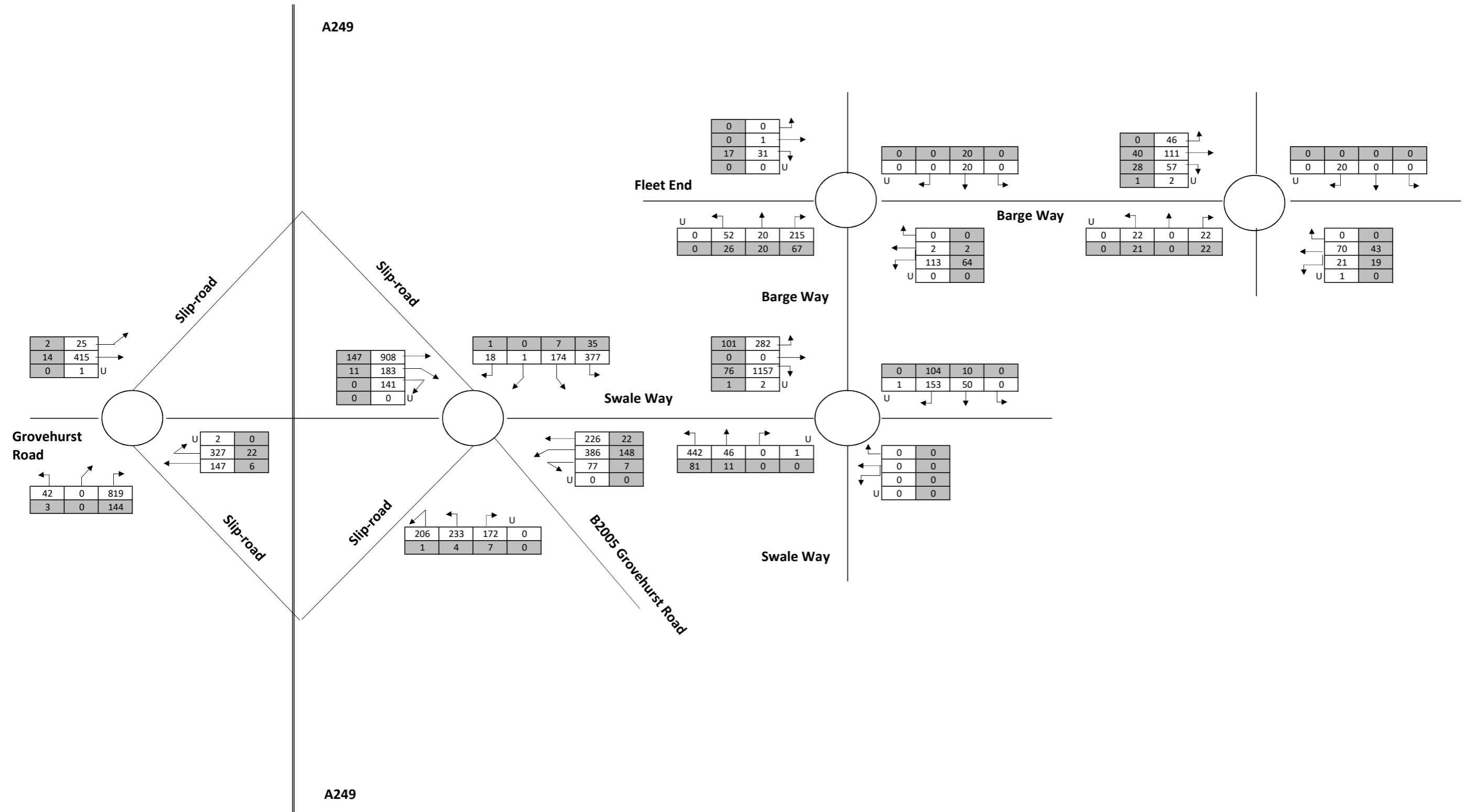




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 T: +44(0)20 7280 3300 E: transport@rpsgroup.com



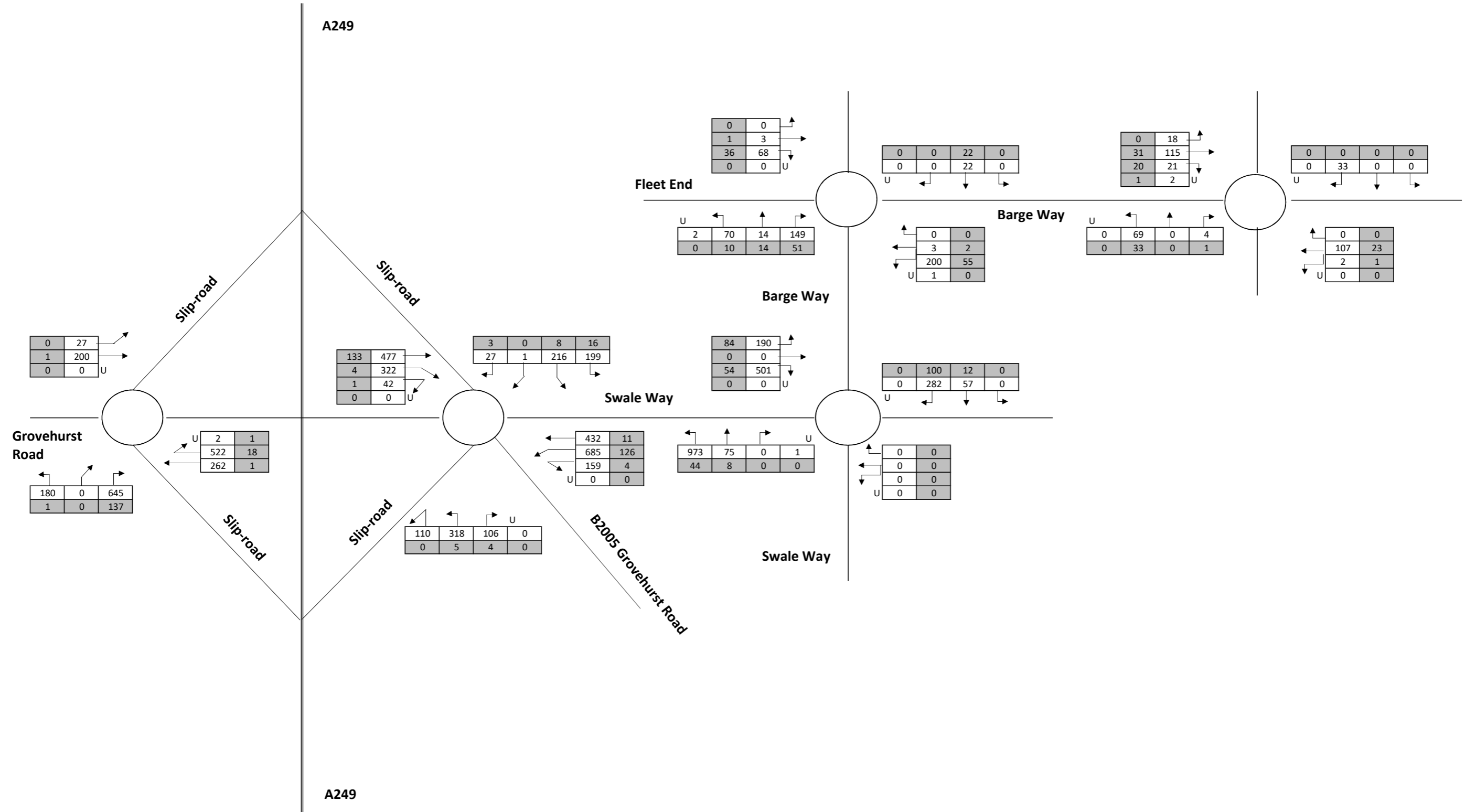
**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2031 Baseline PM Peak Hour (K3 (0-75MW))



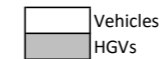
140 London Wall  
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T: +44(0)20 7280 3300 E: transport@rpsgroup.com



**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: 2031 Baseline AM Peak Hour (K3 (49.9 - 75MW) and WKN)



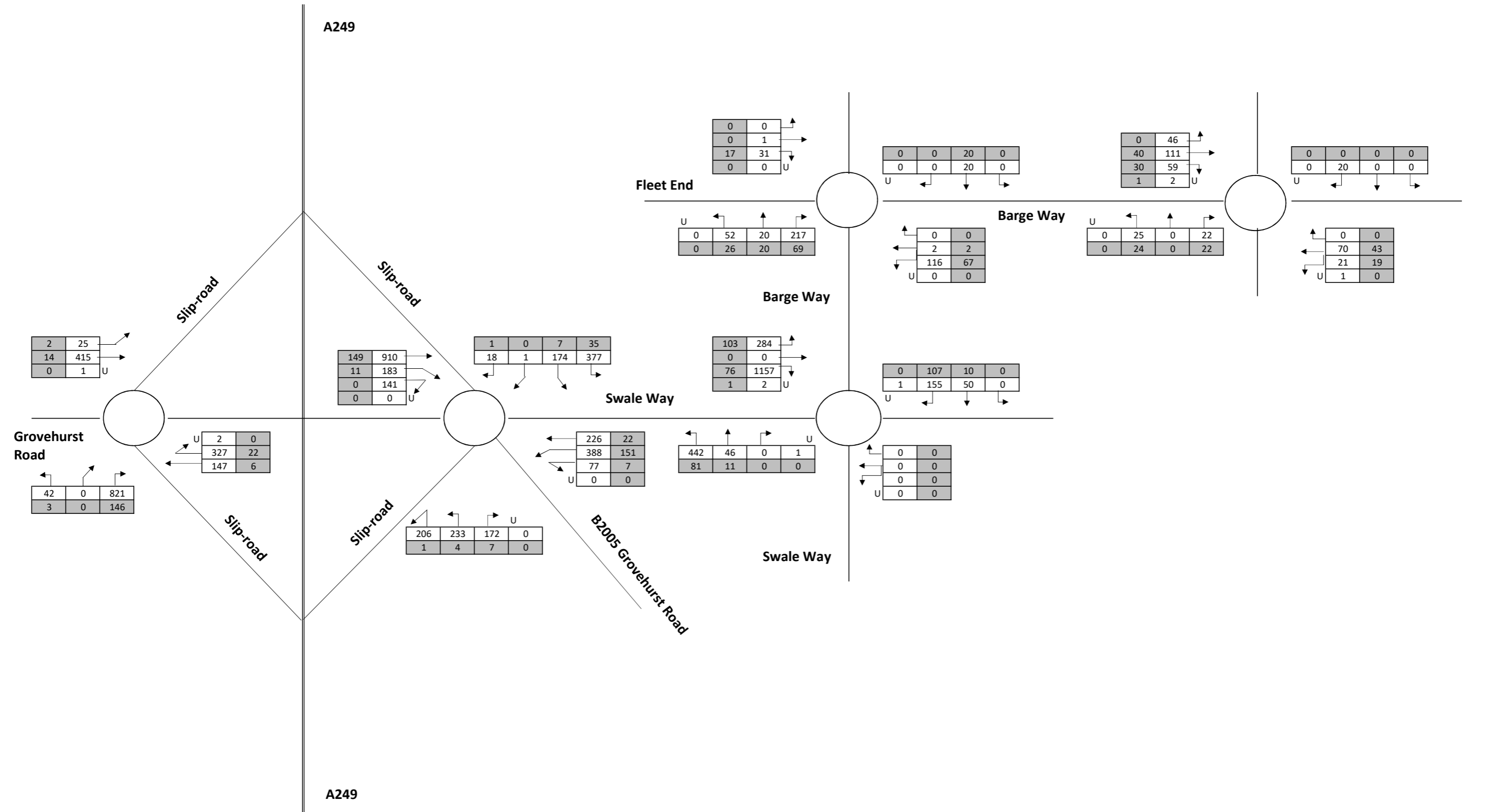
140 London Wall  
 London, EC2Y 5DN  
 T: +44(0)20 7280 3300 E: transport@rpsgroup.com



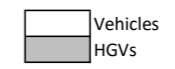
**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2031 Baseline PM Peak Hour (K3 (49.9 - 75MW) and WKN)

**APPENDIX R: 2031 BASELINE AND K3 OPERATIONAL AM AND PM PEAK HOUR TRAFFIC FLOW DIAGRAMS**

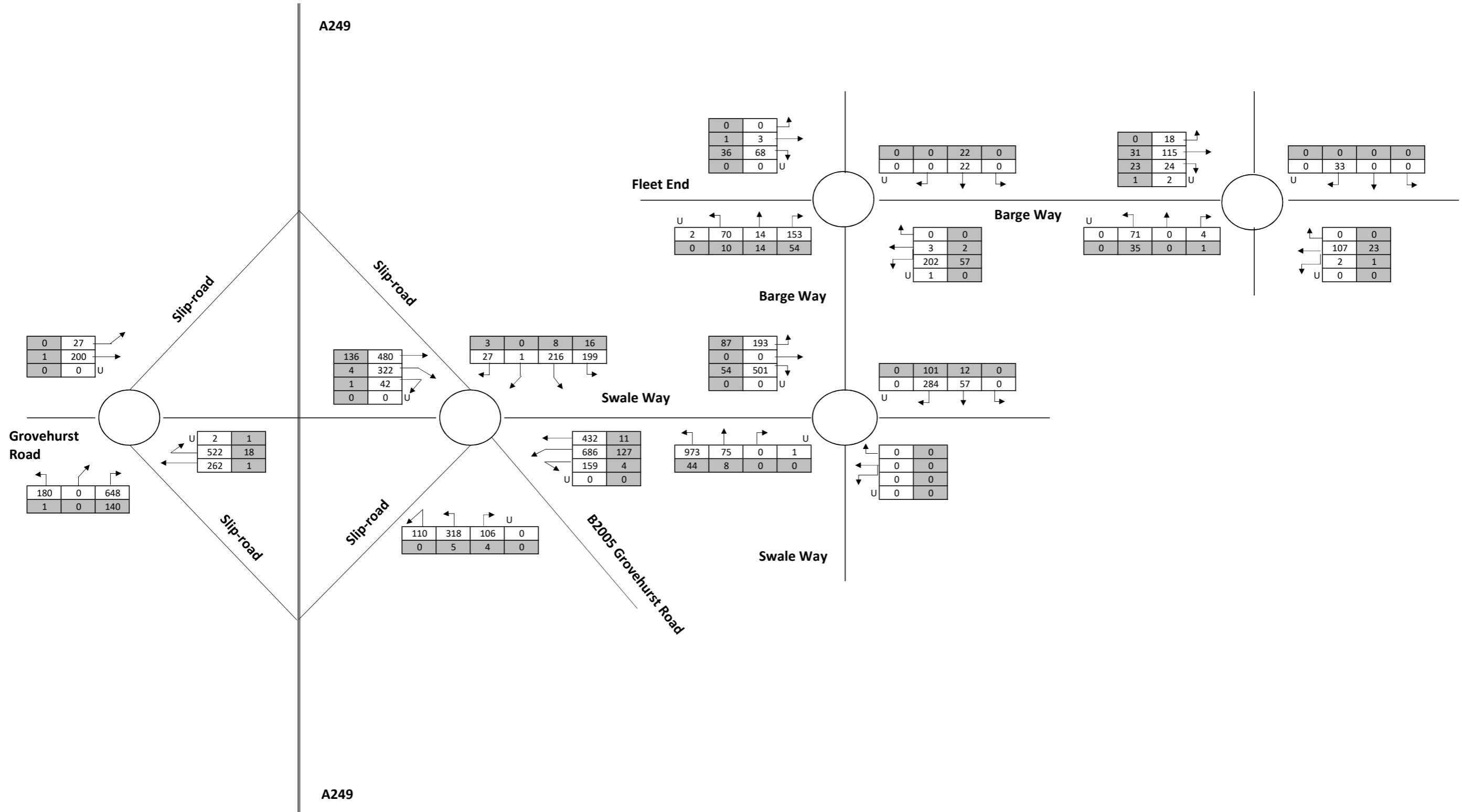
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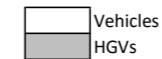
140 London Wall  
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T: +44(0)20 7280 3300 E: transport@rpsgroup.com



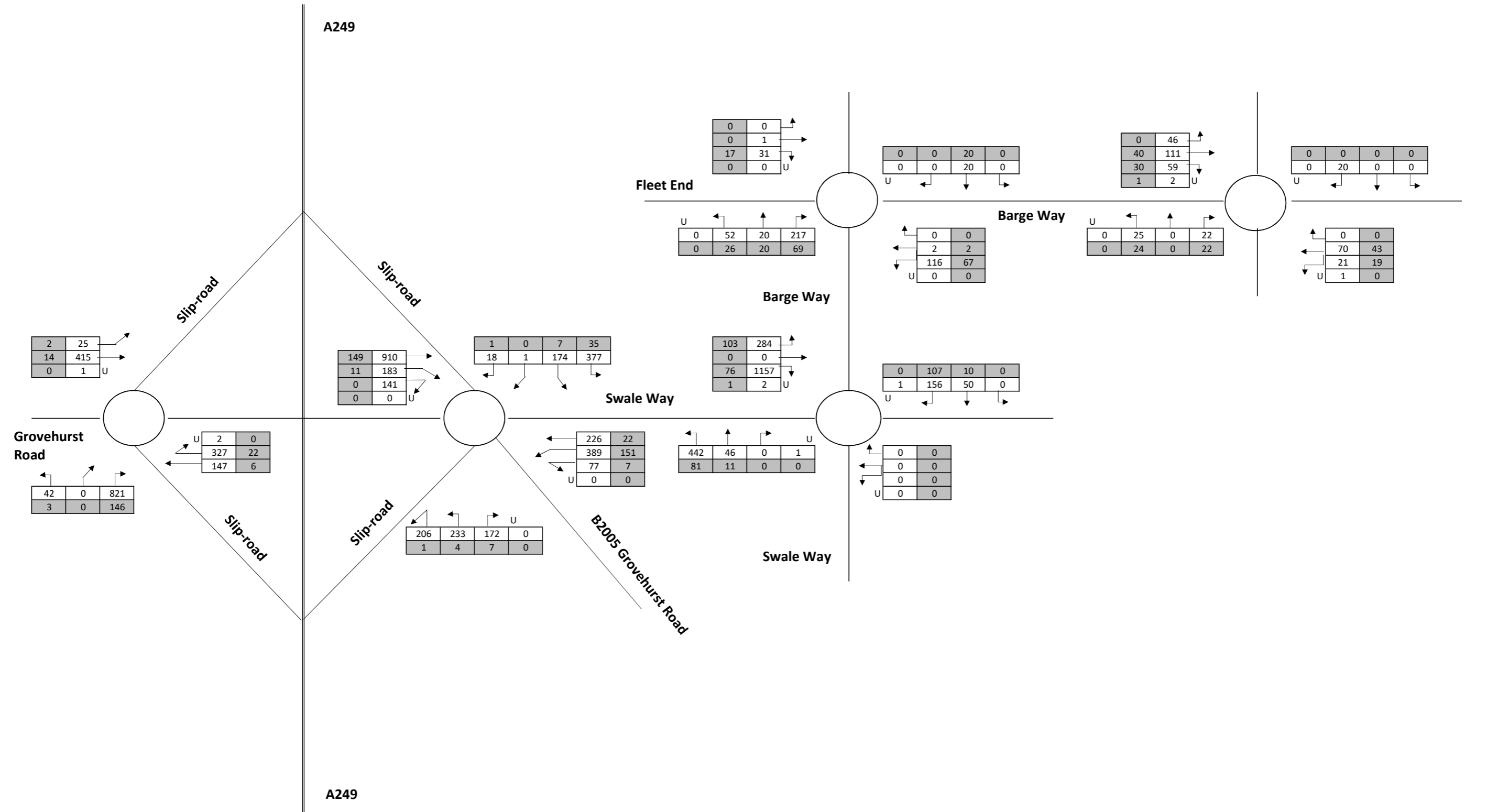
**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: 2031 Baseline + K3 Operational AM Peak Hour (K3 (0-75MW))



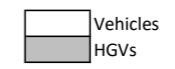
140 London Wall  
 London, EC2Y 5DN  
 T: +44(0)20 7280 3300 E: transport@rpsgroup.com



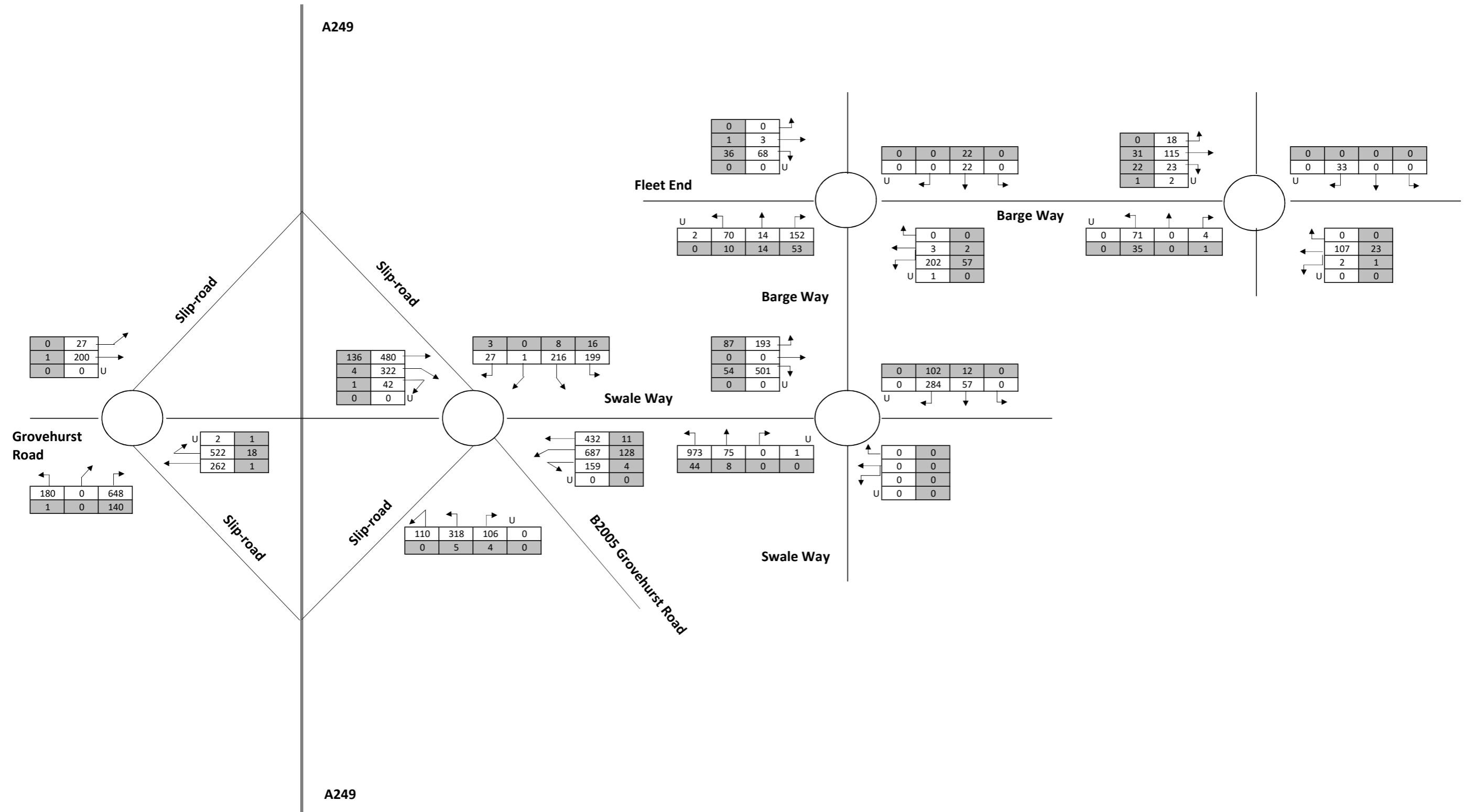
**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2031 Baseline + K3 Operational PM Peak Hour (K3 (0-75MW))



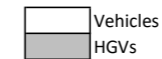
140 London Wall  
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 T: +44(0)20 7280 3300 E: transport@rpsgroup.com



**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2031 Baseline + K3 Operational AM Peak Hour (K3 (49.9 - 75MW) and WKN)



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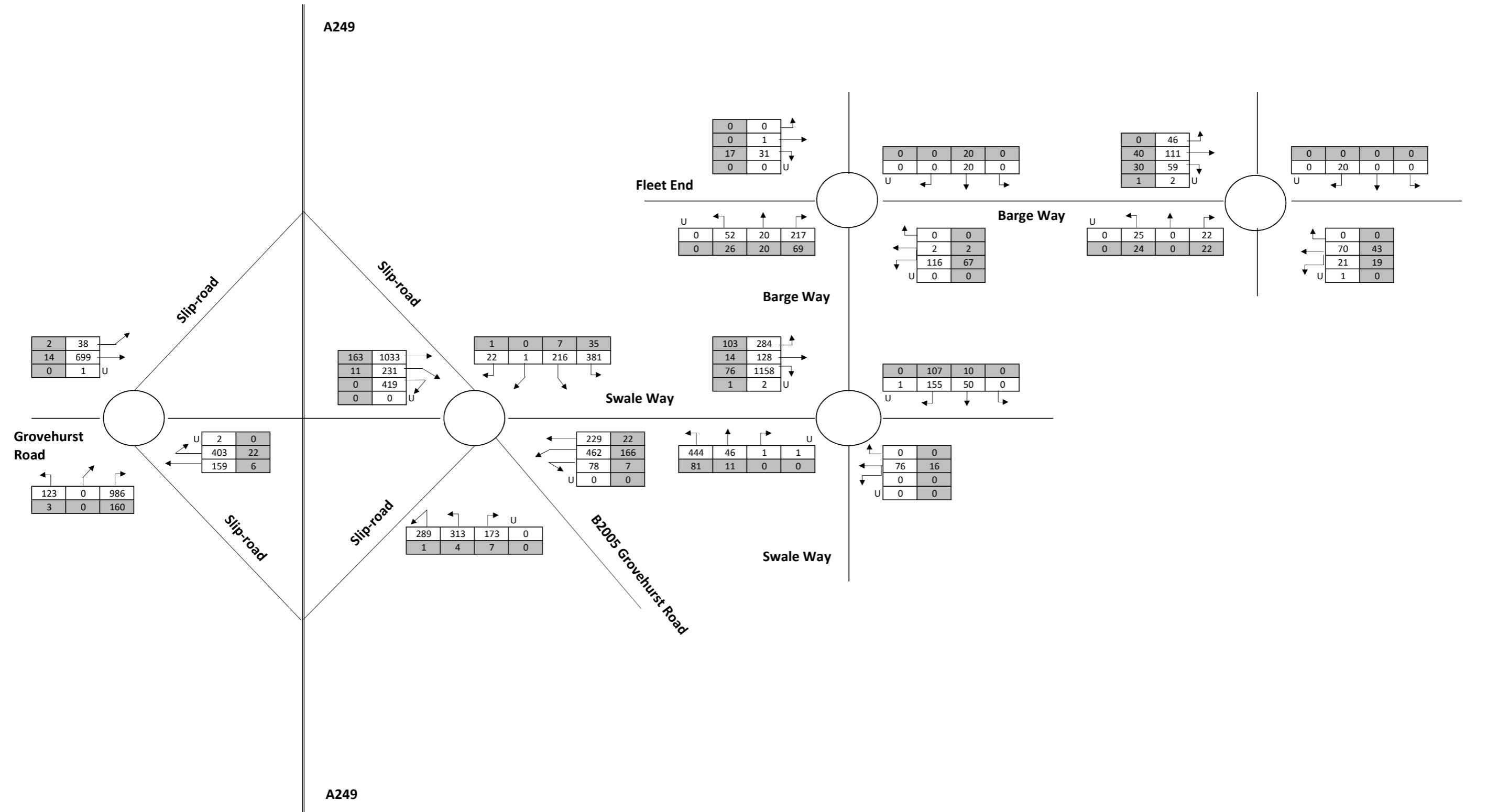


**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2031 Baseline + K3 Operational PM Peak Hour (K3 (49.9 - 75MW) and WKN)

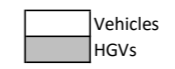


**APPENDIX S: 2031 BASELINE, K3 OPERATIONAL AND 2031 CUMULATIVE DEVELOPMENT AM AND PM PEAK HOUR TRAFFIC FLOW DIAGRAMS**

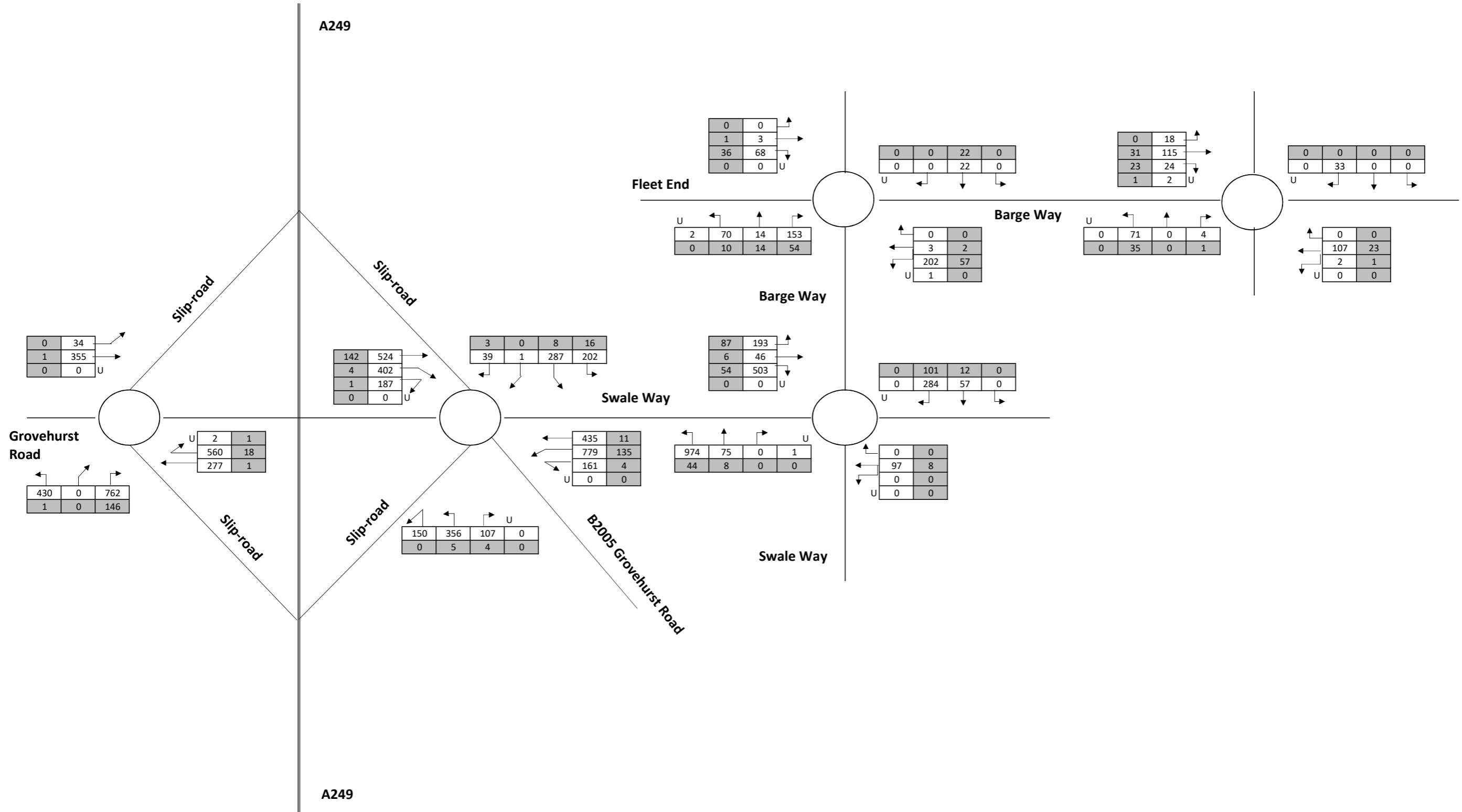
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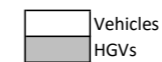
140 London Wall  
London, EC2Y 5DN  
T: +44(0)20 7280 3300 E: transport@rpsgroup.com



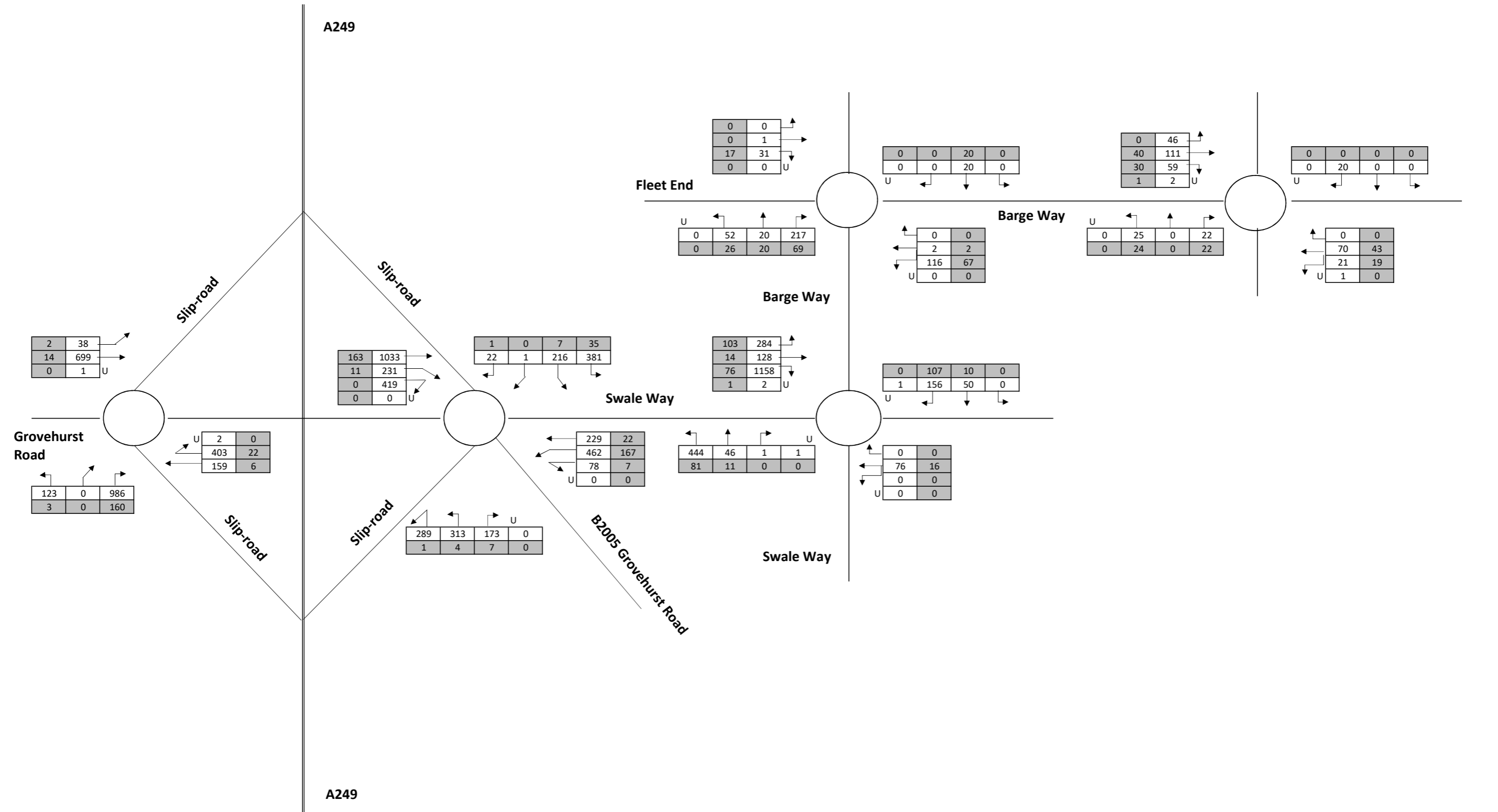
**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: 2031 Baseline + K3 Operational + 2031 Cumulative Development AM Peak Hour (K3 (0-75MW))



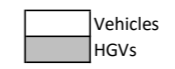
140 London Wall  
London, EC2Y 5DN  
T: +44(0)20 7280 3300 E: transport@rpsgroup.com



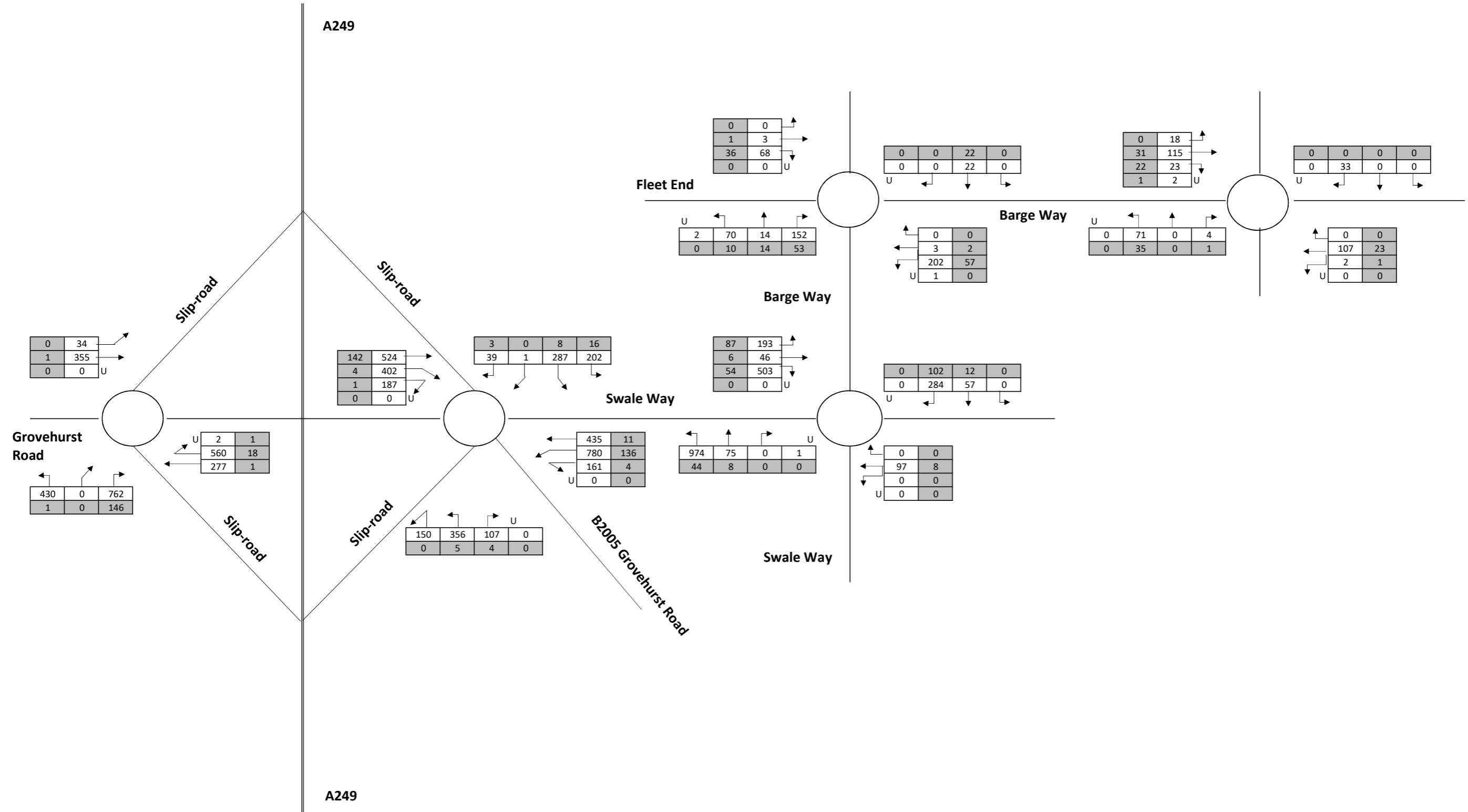
**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: **2031 Baseline + K3 Operational + 2031 Cumulative Development PM Peak Hour (K3 (0-75MW))**



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**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: 2031 Baseline + K3 Operational + 2031 Cumulative Development AM Peak Hour (K3 (49.9 - 75MW) and WKN)



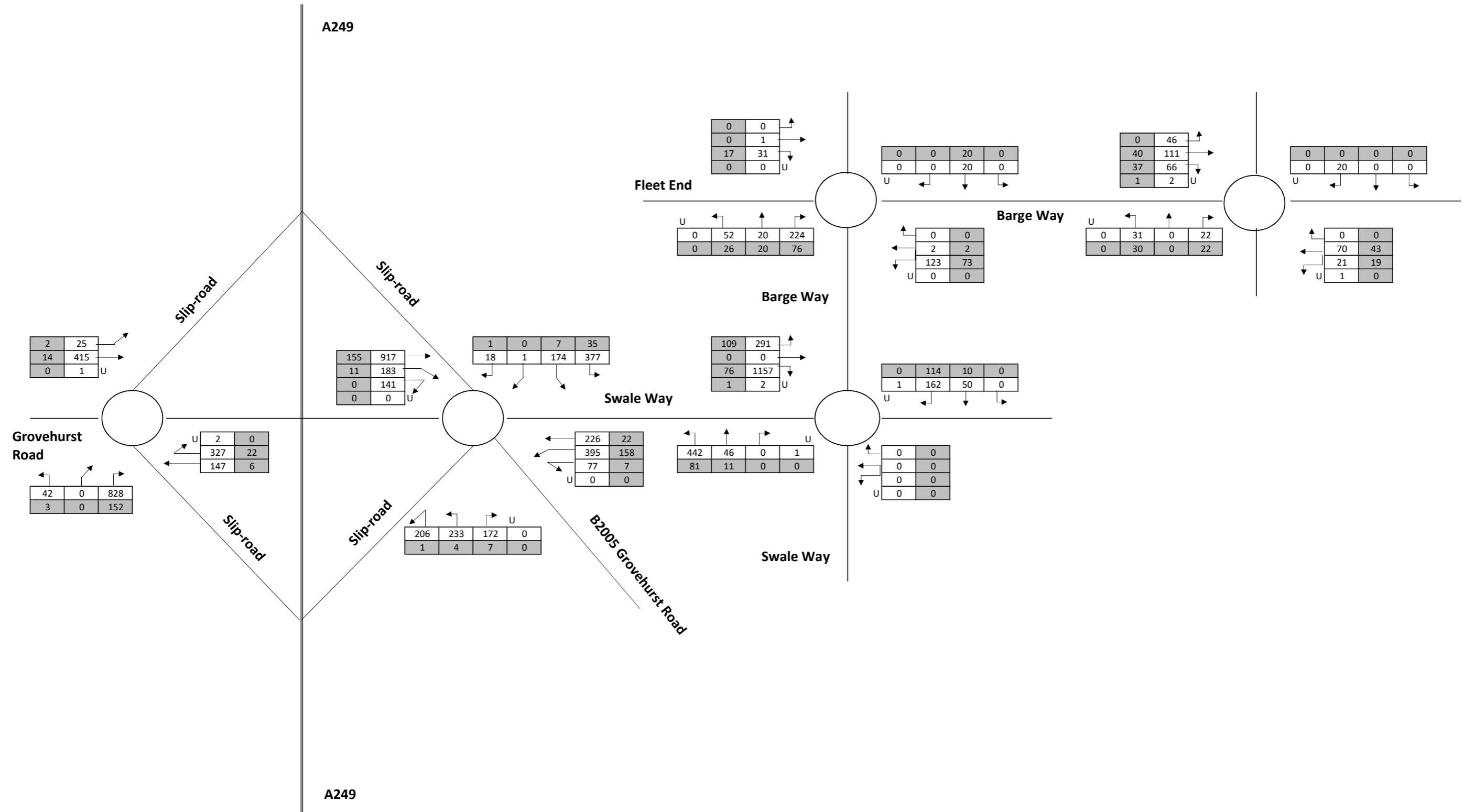
140 London Wall  
 London, EC2Y 5DN  
 T: +44(0)20 7280 3300 E: transport@rpsgroup.com



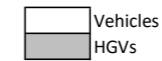
**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2031 Baseline + K3 Operational + 2031 Cumulative Development PM Peak Hour (K3 (49.9 - 75MW) and WKN)

**APPENDIX T: 2031 BASELINE AND WKN OPERATIONAL AM  
AND PM PEAK HOUR TRAFFIC FLOW DIAGRAMS**

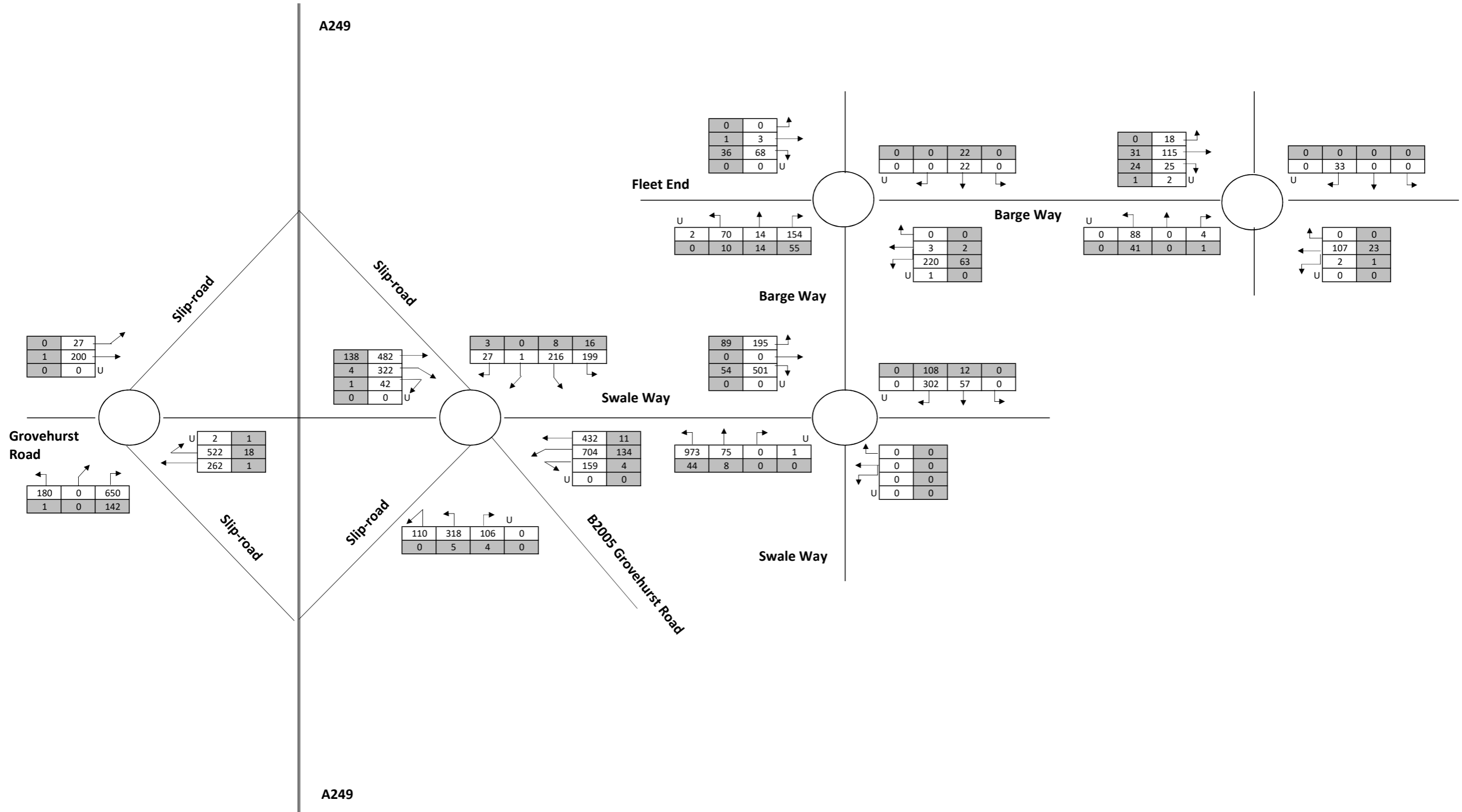
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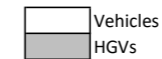
140 London Wall  
 London, EC2Y 5DN  
 T: +44(0)20 7280 3300 E: transport@rpsgroup.com



**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2031 Baseline + WKN Operational AM Peak Hour (K3 (49.9 - 75MW) and WKN)



140 London Wall  
London, EC2Y 5DN  
T: +44(0)20 7280 3300 E: transport@rpsgroup.com

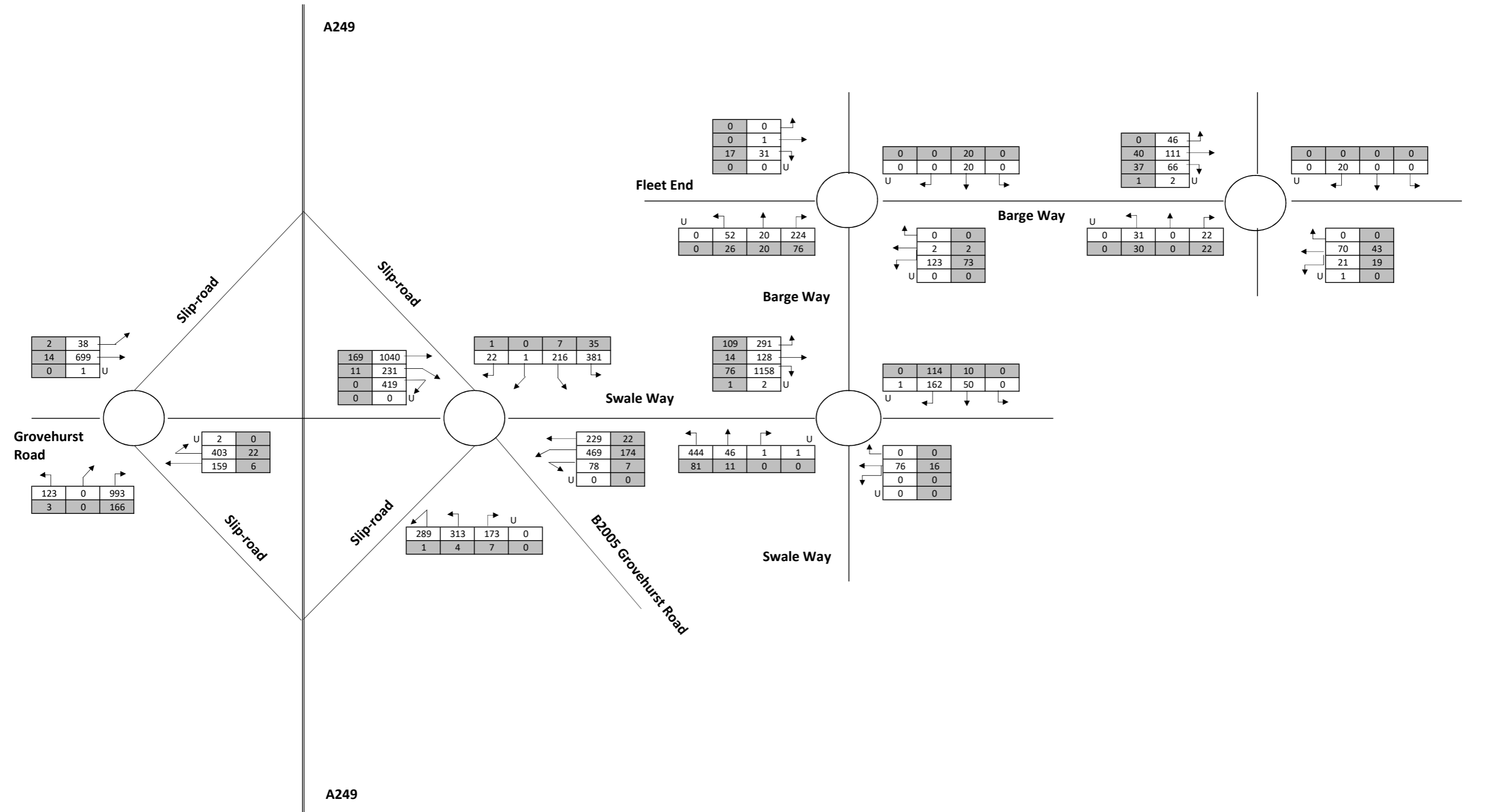


**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: **2031 Baseline + WKN Operational PM Peak Hour (K3 (49.9 - 75MW) and WKN)**

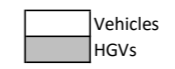


**APPENDIX U: 2031 BASELINE, WKN OPERATIONAL AND 2031 CUMULATIVE DEVELOPMENT AM AND PM PEAK HOUR TRAFFIC FLOW DIAGRAMS**

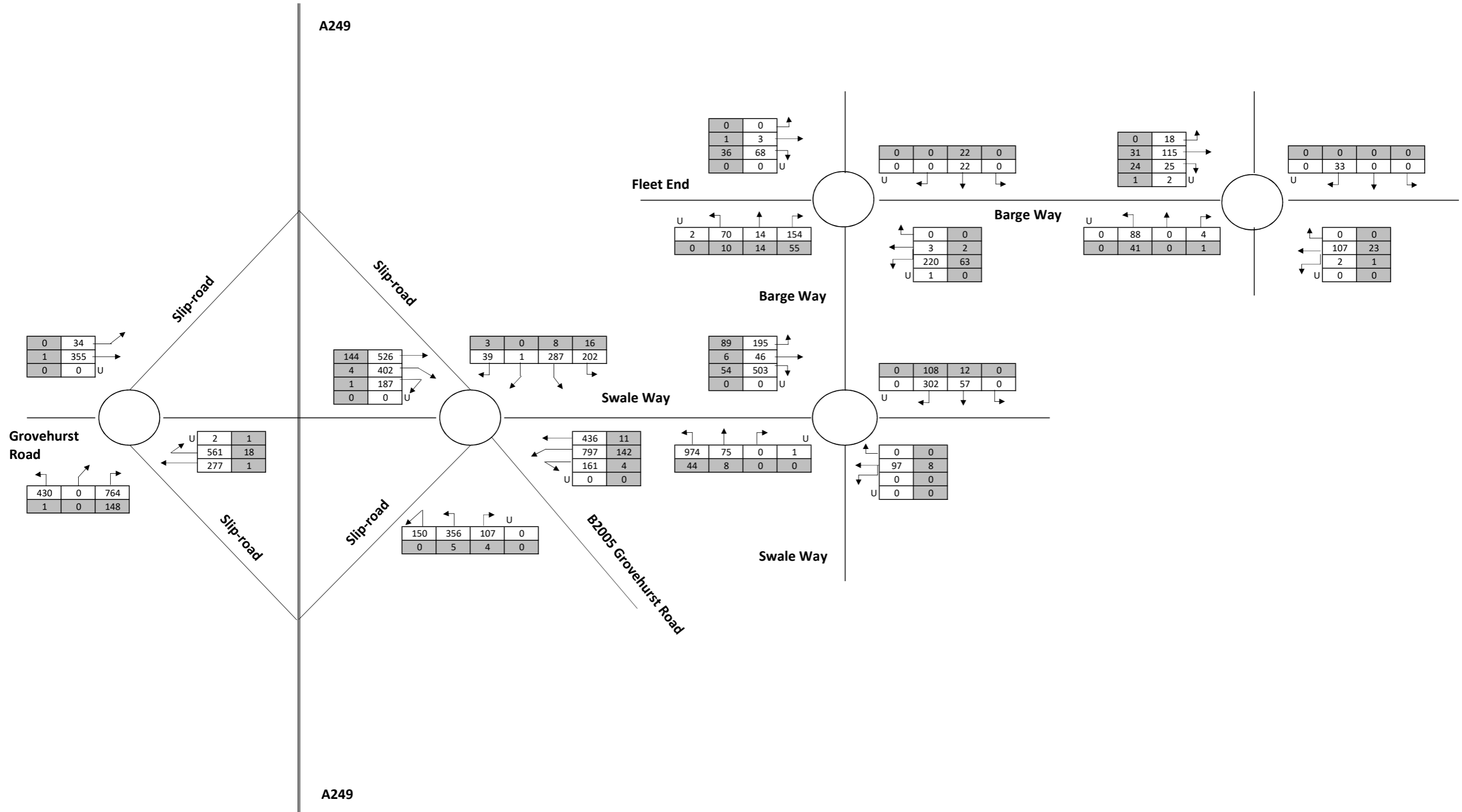
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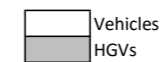
140 London Wall  
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**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2031 Baseline + WKN Operational + 2031 Cumulative Development AM Peak Hour (K3 (49.9 - 75MW) and WKN)



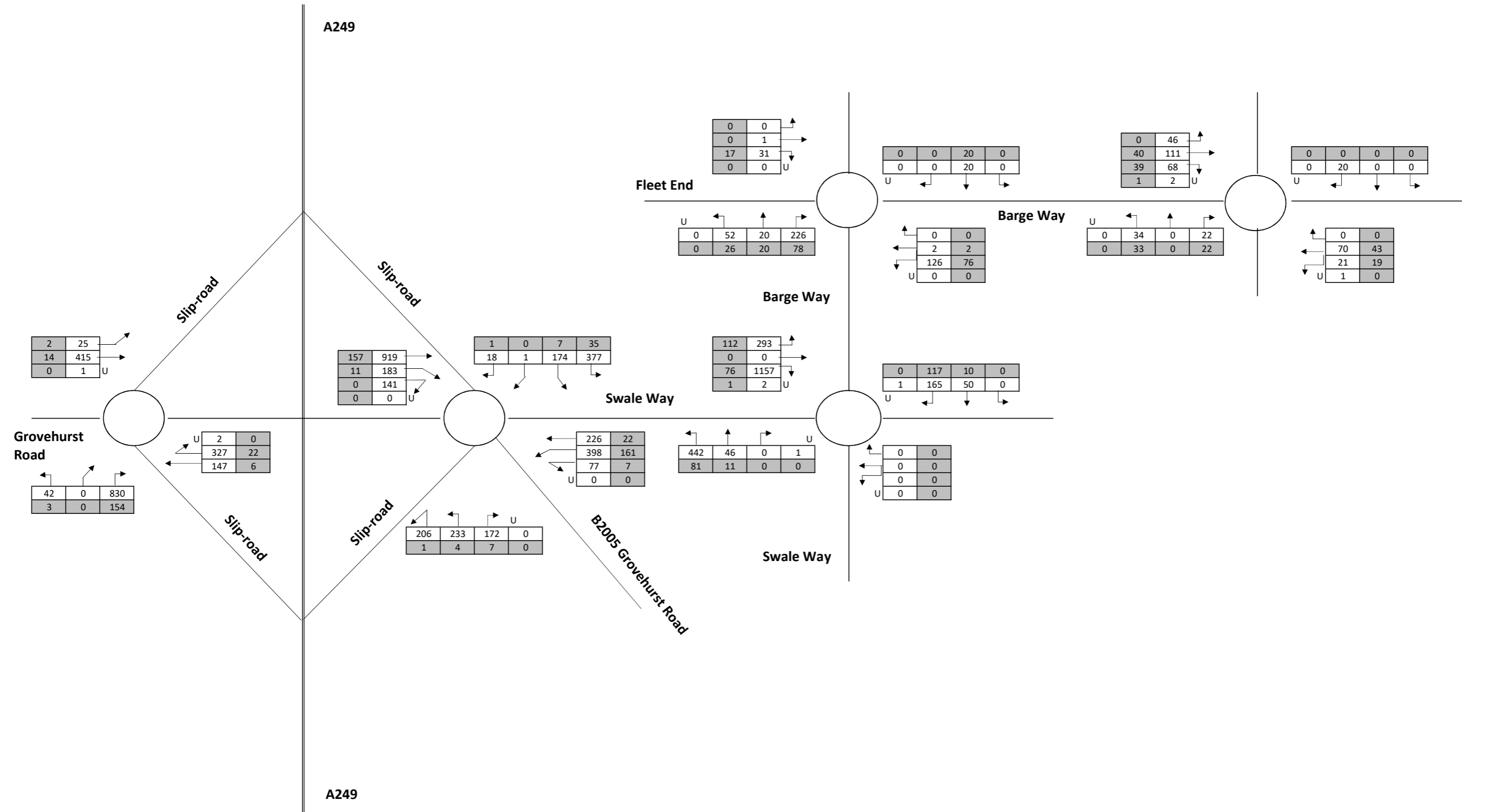
140 London Wall  
London, EC2Y 5DN  
T: +44(0)20 7280 3300 E: transport@rpsgroup.com



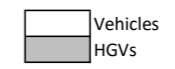
**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: 2031 Baseline + WKN Operational + 2031 Cumulative Development PM Peak Hour (K3 (49.9 - 75MW) and WKN)

**APPENDIX V: 2031 BASELINE, K3 OPERATIONAL AND WKN OPERATIONAL AM AND PM PEAK HOUR TRAFFIC FLOW DIAGRAMS**

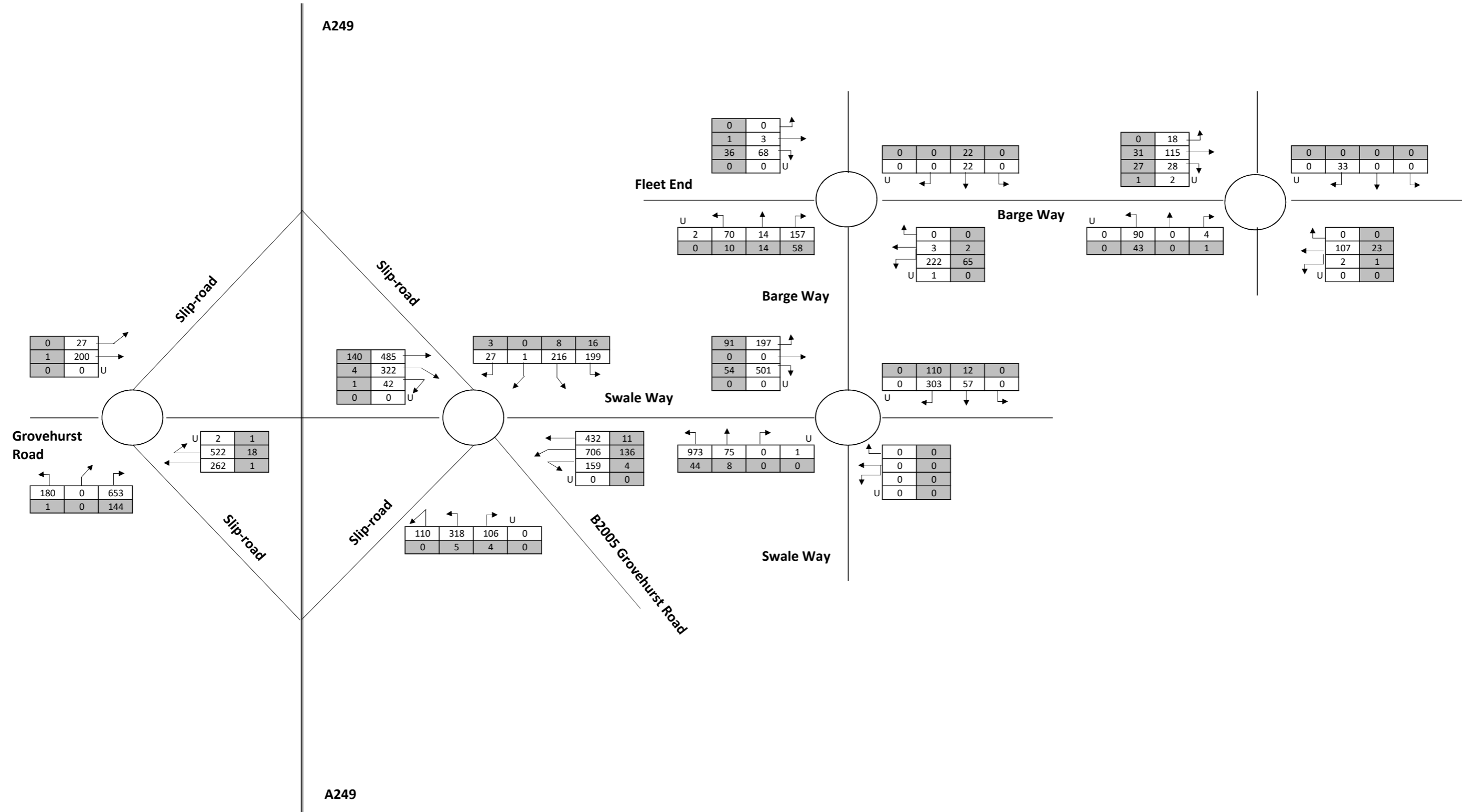
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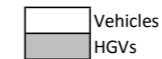
140 London Wall  
 London, EC2Y 5DN  
 T: +44(0)20 7280 3300 E: transport@rpsgroup.com



**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2031 Baseline + K3 and WKN Operational AM Peak Hour (K3 (0-75MW))

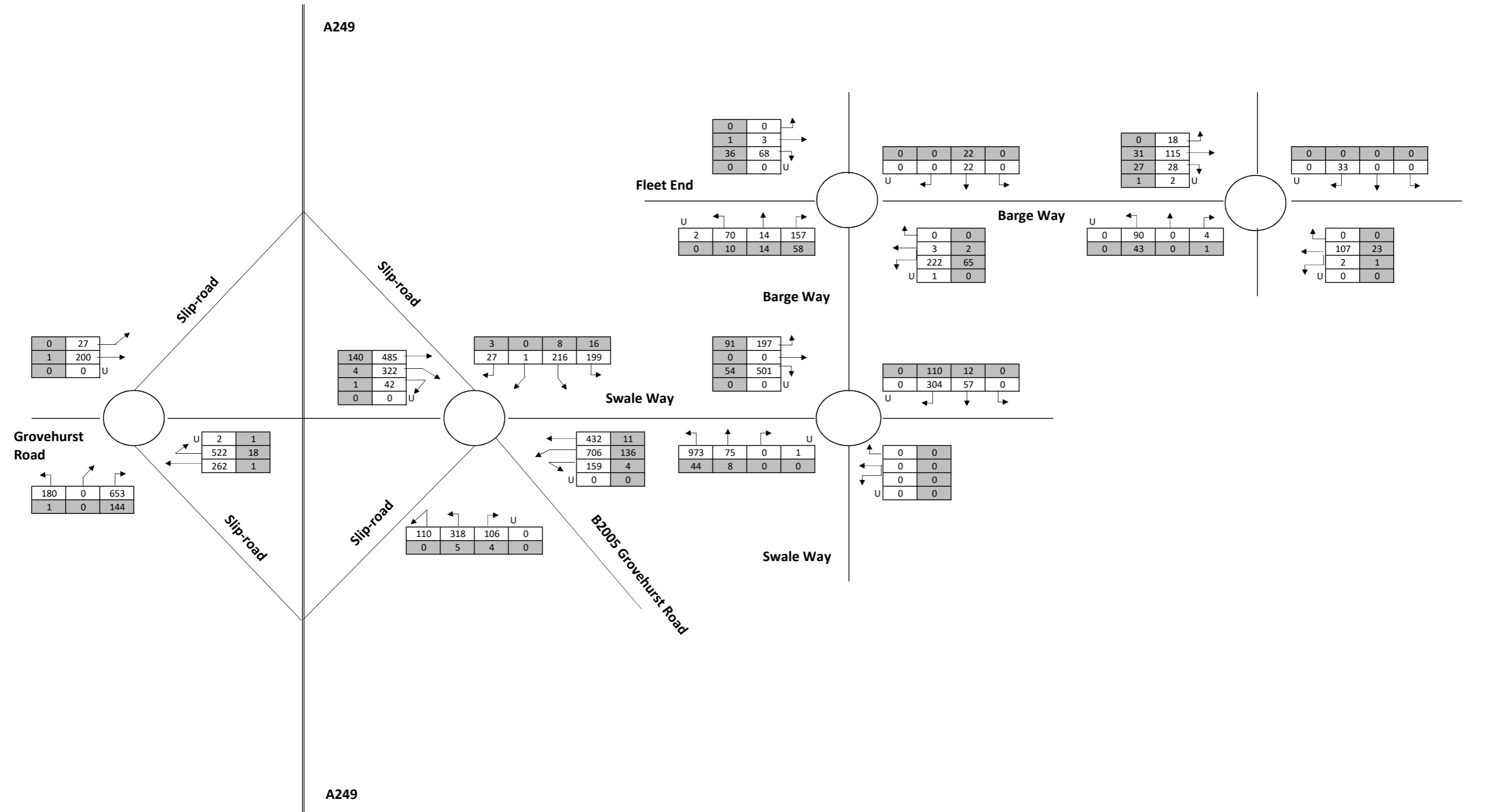


140 London Wall  
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T: +44(0)20 7280 3300 E: transport@rpsgroup.com

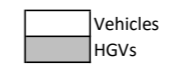


**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: 2031 Baseline + K3 and WKN Operational PM Peak Hour (K3 (0-75MW))





140 London Wall  
 London, EC2Y 5DN  
 T: +44(0)20 7280 3300 E: transport@rpsgroup.com

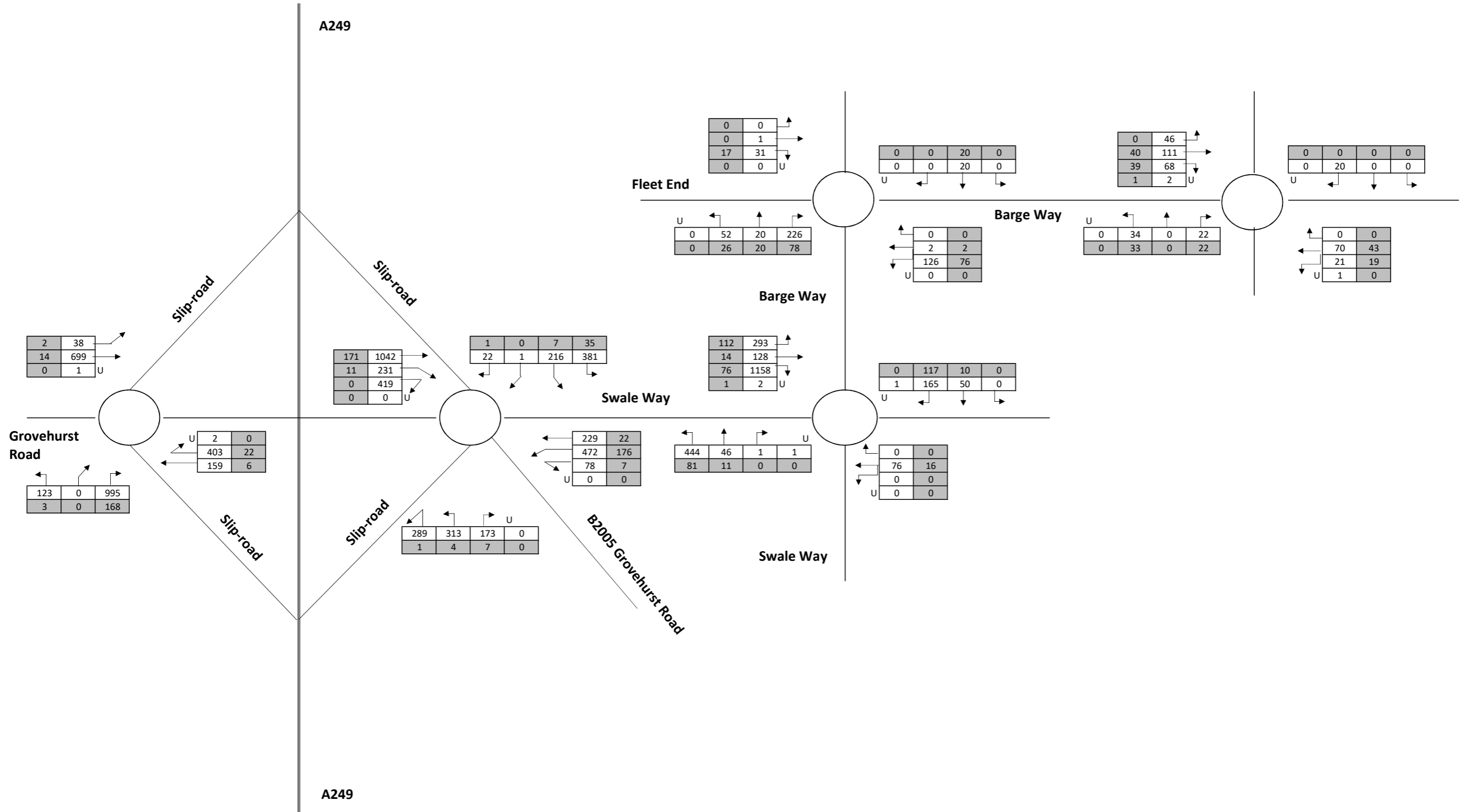


**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2031 Baseline + K3 and WKN Operational PM Peak Hour (K3 (49.9 - 75MW) and WKN)



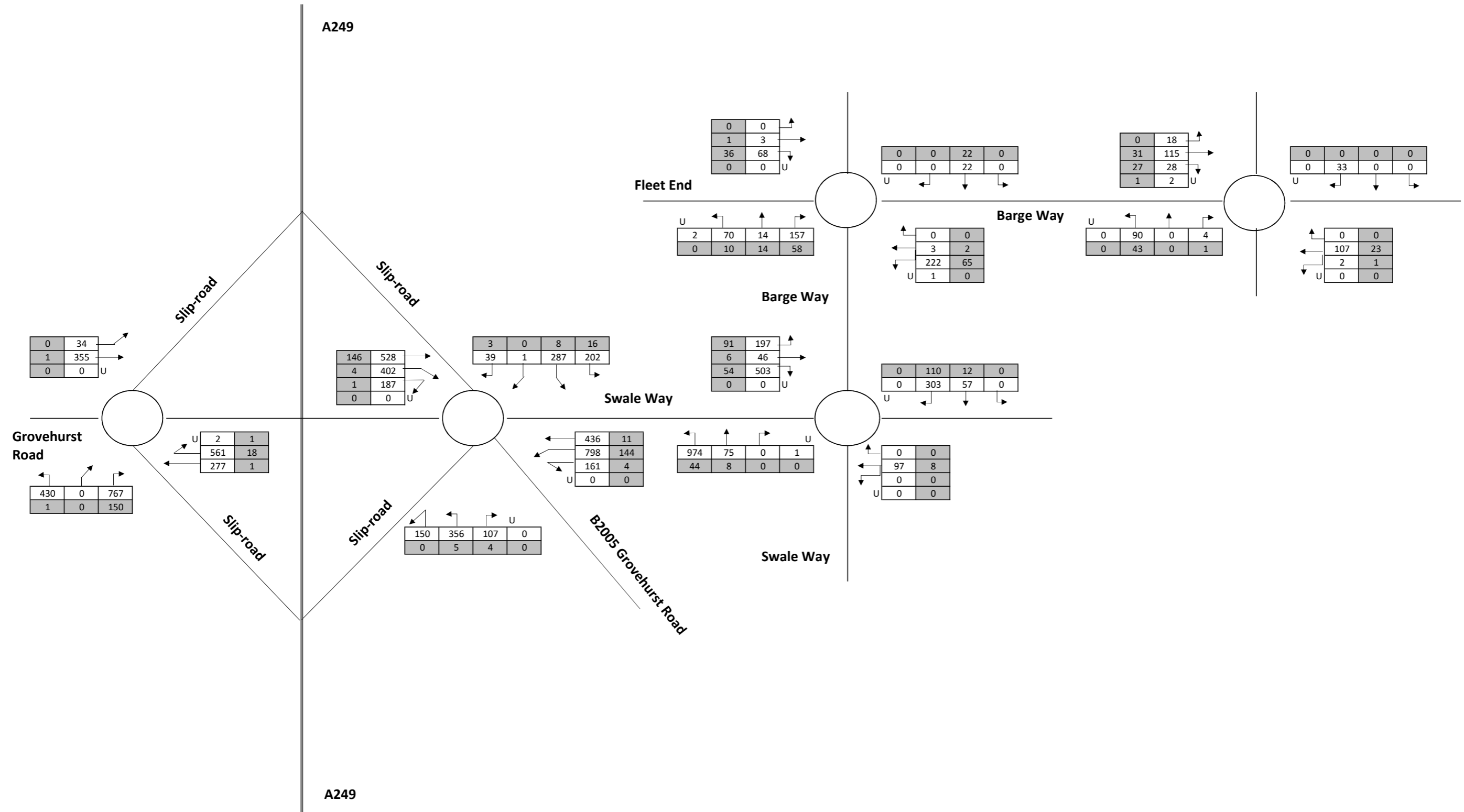
**APPENDIX W: 2031 BASELINE, K3 OPERATIONAL, WKN OPERATIONAL AND 2031 CUMULATIVE DEVELOPMENT AM AND PM PEAK HOUR TRAFFIC FLOW DIAGRAMS**

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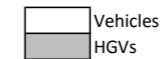


140 London Wall  
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 T: +44(0)20 7280 3300 E: transport@rpsgroup.com

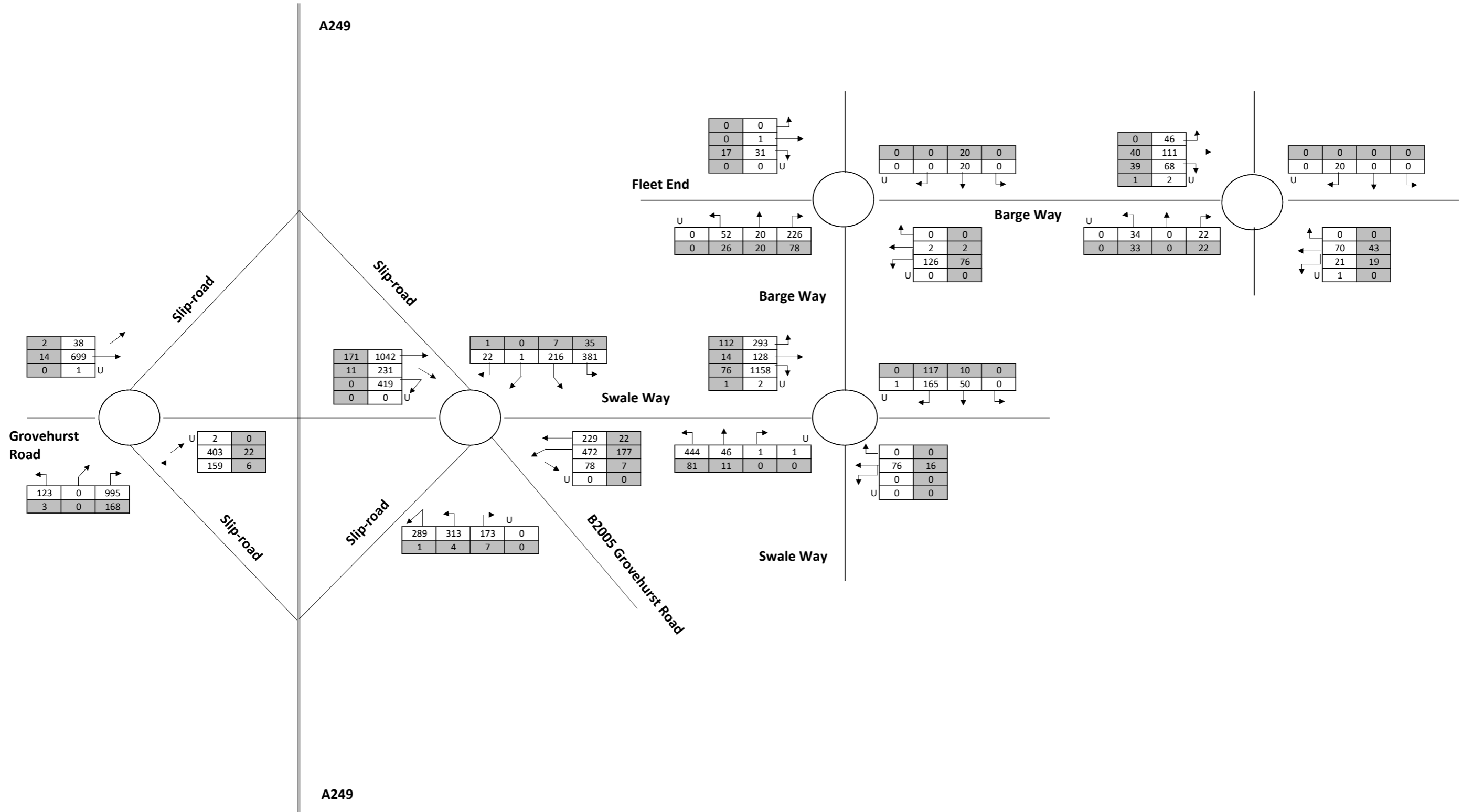
**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: 2031 Baseline + K3 and WKN Operational + 2031 Cumulative Development AM Peak Hour (K3 (0-75MW))



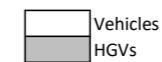
140 London Wall  
London, EC2Y 5DN  
T: +44(0)20 7280 3300 E: transport@rpsgroup.com



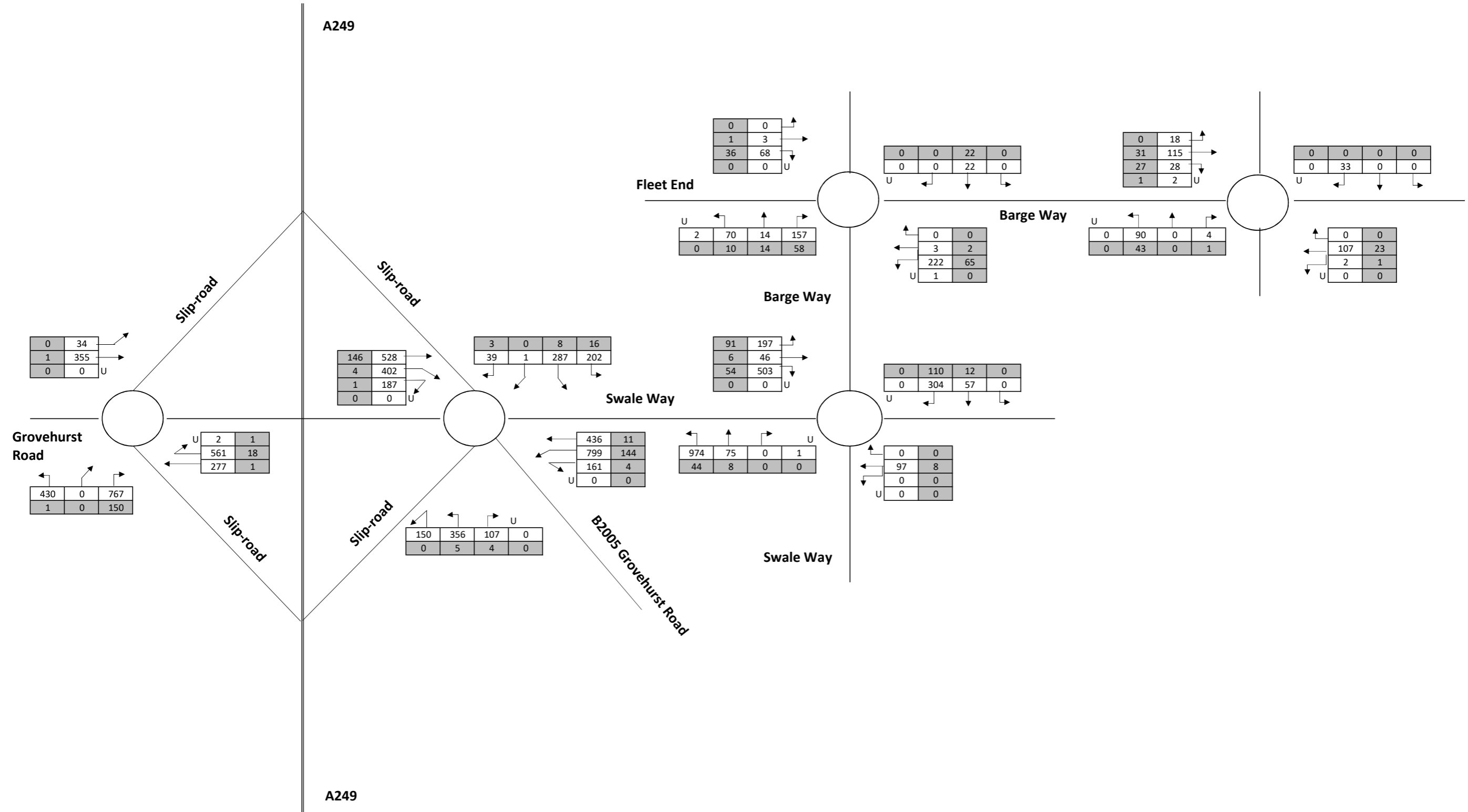
**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: 2031 Baseline + K3 and WKN Operational + 2031 Cumulative Development PM Peak Hour (K3 (0-75MW))



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London, EC2Y 5DN  
T: +44(0)20 7280 3300 E: transport@rpsgroup.com



**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: 2031 Baseline + K3 and WKN Operational + 2031 Cumulative Development AM Peak Hour (K3 (49.9 - 75MW) and WKN)



140 London Wall  
London, EC2Y 5DN  
T: +44(0)20 7280 3300 E: transport@rpsgroup.com



**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: 2031 Baseline + K3 and WKN Operational + 2031 Cumulative Development PM Peak Hour (K3 (49.9 - 75MW) and WKN)

**APPENDIX X: 2021 BASELINE PERCENTAGE IMPACT TABLES**

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**Link 1 - Swale Way East of B2005 Groveshurst Roundabout**

**2021 Baseline + K3 Operational + 2021 Cumulative (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	160	51	5	5	3.1%	9.7%	179	45	5	5	2.8%	10.9%	184	15	5	5	2.7%	32.9%
01.00	148	46	5	5	3.3%	10.8%	158	56	5	5	3.1%	8.9%	157	14	5	5	3.2%	35.3%
02.00	164	42	5	5	3.0%	11.8%	128	45	5	5	3.9%	10.9%	97	13	5	5	5.1%	38.1%
03.00	242	66	5	5	2.1%	7.5%	165	46	5	5	3.0%	10.7%	82	15	5	5	6.0%	32.9%
04.00	366	80	5	5	1.4%	6.2%	204	61	5	5	2.4%	8.2%	100	16	5	5	5.0%	30.9%
05.00	945	135	5	5	0.5%	3.7%	530	93	5	5	0.9%	5.3%	289	47	5	5	1.7%	10.6%
06.00	1285	189	21	5	1.6%	2.6%	687	134	9	5	1.3%	3.7%	416	75	9	5	2.2%	6.6%
07.00	1892	223	34	30	1.8%	13.4%	684	135	34	30	5.0%	22.0%	278	68	25	21	9.2%	31.2%
08.00	2200	213	42	31	1.9%	14.5%	712	117	42	30	5.9%	25.6%	293	64	33	21	11.3%	33.0%
09.00	1333	236	30	30	2.2%	12.6%	785	140	29	29	3.7%	20.7%	314	72	20	20	6.4%	28.0%
10.00	1214	258	30	30	2.4%	11.6%	893	140	29	29	3.2%	20.6%	333	81	20	20	6.1%	25.0%
11.00	1240	244	30	30	2.4%	12.2%	922	136	29	29	3.1%	21.3%	554	78	20	20	3.7%	25.8%
12.00	1359	229	30	30	2.2%	13.0%	944	112	29	29	3.1%	25.7%	854	62	20	20	2.4%	32.6%
13.00	1471	251	35	31	2.3%	12.1%	909	114	25	21	2.8%	18.3%	516	75	25	21	4.9%	27.8%
14.00	1452	243	35	31	2.4%	12.6%	888	111	25	21	2.8%	18.9%	529	70	25	21	4.8%	29.9%
15.00	1577	240	31	31	1.9%	12.9%	904	117	21	21	2.3%	18.1%	535	72	21	21	4.0%	29.5%
16.00	1706	196	31	31	1.8%	15.7%	974	96	21	21	2.2%	22.1%	816	53	21	21	2.6%	40.0%
17.00	1807	162	42	31	2.3%	18.9%	810	81	33	21	4.0%	25.8%	666	50	33	21	4.9%	41.8%
18.00	1209	136	17	17	1.4%	12.4%	690	72	8	8	1.2%	11.6%	451	41	8	8	1.8%	20.3%
19.00	898	97	20	8	2.2%	7.9%	550	68	8	8	1.4%	11.2%	516	51	8	8	1.5%	14.9%
20.00	544	93	8	8	1.4%	8.2%	401	69	8	8	1.9%	11.1%	364	44	8	8	2.1%	17.4%
21.00	384	68	13	9	3.3%	12.7%	313	49	13	9	4.1%	17.5%	221	33	13	9	5.8%	25.8%
22.00	300	49	13	9	4.3%	17.5%	276	25	13	9	4.6%	34.2%	305	10	13	9	4.2%	86.2%
23.00	198	46	5	5	2.5%	10.8%	204	29	5	5	2.4%	17.0%	197	10	5	5	2.5%	49.6%
12 hr	18461	2630	384	350	2.1%	13.3%	10115	1371	325	289	3.2%	21.1%	6138	787	273	237	4.5%	30.1%
24 hr	24096	3593	493	422	2.0%	11.8%	13910	2092	410	361	2.9%	17.3%	9065	1130	358	309	4.0%	27.4%

**Link 2 - Barge Way North of Swale Roundabout**

**2021 Baseline + K3 Operational + 2021 Cumulative (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	128	35	5	5	3.9%	14.1%	133	31	5	5	3.7%	15.9%	100	26	5	5	5.0%	18.9%
01.00	131	32	5	5	3.8%	15.6%	107	26	5	5	4.6%	18.9%	87	25	5	5	5.7%	19.7%
02.00	169	33	5	5	2.9%	15.0%	130	35	5	5	3.8%	14.1%	88	22	5	5	5.6%	22.4%
03.00	223	51	5	5	2.2%	9.6%	166	43	5	5	3.0%	11.4%	81	25	5	5	6.1%	19.7%
04.00	308	63	5	5	1.6%	7.9%	211	57	5	5	2.3%	8.8%	104	28	5	5	4.8%	17.6%
05.00	545	99	5	5	0.9%	5.0%	346	85	5	5	1.4%	5.8%	194	55	5	5	2.6%	9.1%
06.00	530	138	9	5	1.7%	3.6%	308	123	9	5	3.0%	4.0%	168	77	9	5	5.5%	6.4%
07.00	522	154	34	30	6.5%	19.6%	308	119	34	30	11.0%	25.3%	163	84	25	21	15.7%	25.3%
08.00	522	152	42	30	8.0%	19.9%	285	123	42	30	14.6%	24.6%	167	73	33	21	19.8%	29.0%
09.00	441	170	29	29	6.5%	17.2%	283	129	29	29	10.1%	22.7%	162	84	20	20	12.5%	24.1%
10.00	453	176	29	29	6.3%	16.6%	294	118	29	29	9.8%	24.7%	166	89	20	20	12.2%	22.8%
11.00	410	175	29	29	7.0%	16.7%	266	124	29	29	10.8%	23.6%	190	101	20	20	10.7%	20.0%
12.00	424	159	29	29	6.8%	18.4%	245	86	29	29	11.7%	33.9%	226	72	20	20	9.0%	28.1%
13.00	517	183	34	30	6.5%	16.4%	310	101	25	21	8.1%	20.7%	220	91	25	21	11.4%	23.0%
14.00	512	192	34	30	6.6%	15.6%	281	113	25	21	9.0%	18.5%	193	89	25	21	13.1%	23.5%
15.00	514	190	30	30	5.8%	15.9%	299	122	21	21	7.1%	17.3%	188	92	21	21	11.3%	23.1%
16.00	530	155	30	30	5.6%	19.5%	245	76	21	21	8.7%	27.9%	221	82	21	21	9.6%	25.8%
17.00	504	120	41	30	8.2%	24.9%	201	69	33	21	16.3%	30.3%	181	60	33	21	18.1%	34.9%
18.00	376	101	17	17	4.5%	17.0%	187	53	8	8	4.4%	15.7%	143	47	8	8	5.8%	17.8%
19.00	248	85	8	8	3.1%	9.0%	134	69	8	8	5.7%	11.0%	130	54	8	8	5.8%	14.1%
20.00	183	64	8	8	4.2%	11.8%	106	57	8	8	7.2%	13.4%	100	50	8	8	7.7%	15.3%
21.00	144	47	13	9	8.9%	18.4%	89	40	13	9	14.5%	21.4%	74	34	13	9	17.5%	25.2%
22.00	109	32	13	9	11.8%	26.9%	67	23	13	9	19.3%	37.2%	73	15	13	9	17.7%	57.2%
23.00	143	41	5	5	3.5%	12.1%	77	24	5	5	6.5%	20.5%	74	20	5	5	6.7%	24.7%
12 hr	5725	1925	375	345	6.6%	17.9%	3203	1234	324	291	10.1%	23.6%	2219	965	273	237	12.3%	24.6%
24 hr	8586	2646	460	417	5.4%	15.7%	5078	1848	409	363	8.1%	19.6%	3490	1397	358	309	10.3%	22.1%



**Link 3 - Barge Way East of Fleet End Roundabout**

**2021 Baseline + K3 Operational + 2021 Cumulative (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	18	5	5	12.5%	27.1%	90	14	5	5	5.5%	35.3%	14	10	5	5	35.3%	49.6%
01.00	38	17	5	5	12.9%	29.4%	34	17	5	5	14.5%	29.0%	11	10	5	5	45.1%	49.6%
02.00	57	20	5	5	8.7%	25.4%	35	25	5	5	14.1%	19.7%	13	10	5	5	38.1%	49.6%
03.00	71	21	5	5	7.0%	23.3%	19	12	5	5	26.0%	41.3%	11	10	5	5	45.1%	49.6%
04.00	111	27	5	5	4.5%	18.2%	38	20	5	5	12.9%	24.7%	20	10	5	5	24.7%	49.6%
05.00	226	36	5	5	2.2%	13.9%	97	17	5	5	5.1%	29.0%	55	11	5	5	9.0%	45.1%
06.00	275	54	9	5	3.4%	9.1%	109	39	9	5	8.4%	12.6%	55	13	9	5	16.8%	38.1%
07.00	308	72	34	30	11.2%	41.8%	132	42	34	30	26.1%	71.4%	71	20	25	21	35.7%	106.0%
08.00	299	80	42	30	14.1%	37.6%	132	46	42	30	31.8%	65.2%	87	17	33	21	38.2%	125.0%
09.00	231	83	29	29	12.7%	35.2%	125	46	29	29	23.4%	63.0%	65	17	20	20	31.1%	119.1%
10.00	220	85	29	29	13.3%	34.2%	113	41	29	29	25.8%	70.8%	66	17	20	20	30.8%	119.1%
11.00	195	82	29	29	15.0%	35.6%	98	27	29	29	29.7%	107.7%	59	19	20	20	34.3%	106.4%
12.00	228	83	29	29	12.8%	35.1%	91	22	29	29	32.2%	132.4%	66	18	20	20	30.5%	112.4%
13.00	262	84	34	30	13.0%	35.7%	117	20	25	21	21.5%	104.3%	98	16	25	21	25.8%	130.7%
14.00	240	94	34	30	14.2%	31.9%	94	19	25	21	26.7%	109.9%	77	16	25	21	32.6%	130.7%
15.00	217	91	30	30	13.9%	33.3%	86	23	21	21	24.8%	92.0%	67	17	21	21	31.5%	124.9%
16.00	249	69	30	30	12.1%	43.5%	87	14	21	21	24.5%	151.3%	81	13	21	21	26.4%	163.0%
17.00	278	50	42	30	15.0%	59.5%	86	11	33	21	38.2%	190.0%	95	10	33	21	34.5%	209.2%
18.00	154	37	17	17	11.2%	46.6%	62	12	8	8	13.4%	68.9%	59	11	8	8	14.1%	75.3%
19.00	88	28	8	8	8.6%	26.8%	47	10	8	8	16.3%	76.2%	50	10	8	8	15.3%	76.2%
20.00	77	27	8	8	9.8%	28.6%	29	12	8	8	25.9%	63.4%	28	10	8	8	26.8%	76.2%
21.00	67	19	13	9	19.1%	44.6%	27	10	13	9	47.3%	86.2%	26	12	13	9	49.1%	71.7%
22.00	41	21	13	9	31.5%	41.2%	12	10	13	9	106.9%	86.2%	19	11	13	9	67.3%	78.3%
23.00	40	17	5	5	12.4%	29.0%	11	10	5	5	45.1%	49.6%	17	11	5	5	29.0%	45.1%
12 hr	2881	911	381	345	13.2%	37.8%	1223	325	327	291	26.8%	89.6%	891	191	273	237	30.7%	124.0%
24 hr	4012	1216	466	417	11.6%	34.3%	1772	522	412	363	23.3%	69.6%	1210	319	358	309	29.6%	96.9%

Link 4 - A249 South of Swale Way Junction

2021 Baseline + K3 Operational + 2021 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	235	62	5	5	2.1%	8.0%	393	63	5	5	1.3%	7.9%	453	40	5	5	1.1%	12.3%
01.00	169	53	5	5	2.9%	9.3%	262	58	5	5	1.9%	8.6%	291	33	5	5	1.7%	14.9%
02.00	167	60	5	5	3.0%	8.3%	222	68	5	5	2.2%	7.3%	204	37	5	5	2.4%	13.6%
03.00	237	78	5	5	2.1%	6.4%	223	68	5	5	2.2%	7.3%	171	39	5	5	2.9%	12.8%
04.00	548	139	5	5	0.9%	3.6%	305	76	5	5	1.6%	6.5%	196	40	5	5	2.5%	12.5%
05.00	1339	239	5	5	0.4%	2.1%	695	140	5	5	0.7%	3.5%	409	75	5	5	1.2%	6.6%
06.00	2374	303	20	5	0.9%	1.6%	1203	181	9	5	0.7%	2.7%	787	109	9	5	1.1%	4.5%
07.00	3131	346	34	29	1.1%	8.5%	1422	200	34	29	2.4%	14.8%	808	113	25	21	3.1%	18.8%
08.00	2881	350	42	30	1.4%	8.7%	1810	211	41	29	2.3%	13.9%	1114	113	33	21	2.9%	18.8%
09.00	2199	364	29	29	1.3%	8.1%	2055	230	28	28	1.4%	12.4%	1635	154	20	20	1.2%	13.2%
10.00	2108	385	29	29	1.4%	7.6%	2350	218	28	28	1.2%	13.0%	2097	171	20	20	1.0%	11.9%
11.00	2143	376	29	29	1.4%	7.8%	2493	213	28	28	1.1%	13.4%	2319	169	20	20	0.9%	12.0%
12.00	2303	369	29	29	1.3%	8.0%	2685	190	28	28	1.1%	15.0%	2179	142	20	20	0.9%	14.3%
13.00	2335	386	34	30	1.5%	7.8%	2625	195	25	21	1.0%	10.7%	2139	150	25	21	1.2%	14.0%
14.00	2577	387	34	30	1.3%	7.8%	2406	180	25	21	1.0%	11.6%	2157	151	25	21	1.2%	13.9%
15.00	2866	382	30	30	1.1%	7.9%	2360	184	21	21	0.9%	11.6%	2130	162	21	21	1.0%	13.1%
16.00	3391	318	30	30	0.9%	9.6%	2458	151	21	21	0.9%	14.0%	2396	150	21	21	0.9%	14.2%
17.00	3665	279	41	30	1.1%	10.8%	2331	142	32	21	1.4%	14.8%	1944	136	32	21	1.7%	15.4%
18.00	2769	250	17	17	0.6%	6.6%	2033	129	8	8	0.4%	6.4%	1858	124	8	8	0.4%	6.7%
19.00	2008	184	19	8	0.9%	4.1%	1596	118	8	8	0.5%	6.5%	1543	111	8	8	0.5%	6.9%
20.00	1272	137	8	8	0.6%	5.6%	1159	86	8	8	0.7%	8.8%	1274	95	8	8	0.6%	8.1%
21.00	947	104	13	9	1.3%	8.3%	964	66	13	9	1.3%	13.1%	926	78	13	9	1.4%	11.0%
22.00	726	69	13	9	1.7%	12.5%	852	44	13	9	1.5%	19.6%	545	40	13	9	2.3%	21.6%
23.00	435	58	5	5	1.1%	8.5%	659	45	5	5	0.8%	11.1%	331	42	5	5	1.5%	11.9%
12 hr	32369	4192	379	344	1.2%	8.2%	27028	2243	321	286	1.2%	12.8%	22776	1734	272	237	1.2%	13.7%
24 hr	42824	5677	486	417	1.1%	7.3%	35563	3254	406	359	1.1%	11.0%	29905	2473	356	309	1.2%	12.5%

Link 5 - A249 between the A2 and M2

2021 Baseline + K3 Operational + 2021 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	333	86	5	5	1.5%	5.8%	559	88	5	5	0.9%	5.7%	644	55	5	5	0.8%	9.0%
01.00	238	74	5	5	2.1%	6.7%	372	80	5	5	1.3%	6.2%	414	45	5	5	1.2%	11.0%
02.00	236	82	5	5	2.1%	6.0%	315	94	5	5	1.6%	5.3%	290	50	5	5	1.7%	10.0%
03.00	334	108	5	5	1.5%	4.6%	317	95	5	5	1.6%	5.2%	242	53	5	5	2.1%	9.3%
04.00	777	194	5	5	0.6%	2.6%	433	106	5	5	1.1%	4.7%	277	54	5	5	1.8%	9.2%
05.00	1873	323	5	5	0.3%	1.5%	971	185	5	5	0.5%	2.7%	562	92	5	5	0.9%	5.4%
06.00	3260	401	20	5	0.6%	1.2%	1605	232	9	5	0.5%	2.1%	1009	129	9	5	0.9%	3.9%
07.00	4376	445	34	30	0.8%	6.8%	1975	250	34	30	1.7%	12.1%	1116	135	25	21	2.3%	15.7%
08.00	3954	450	42	31	1.1%	6.9%	2530	268	41	30	1.6%	11.3%	1550	137	32	21	2.1%	15.5%
09.00	3053	466	30	30	1.0%	6.4%	2904	290	29	29	1.0%	10.1%	2308	191	20	20	0.9%	10.6%
10.00	2918	494	30	30	1.0%	6.1%	3325	271	29	29	0.9%	10.8%	2994	212	20	20	0.7%	9.5%
11.00	2971	482	30	30	1.0%	6.2%	3543	265	29	29	0.8%	11.0%	3325	212	20	20	0.6%	9.6%
12.00	3200	481	30	30	0.9%	6.2%	3834	240	29	29	0.8%	12.2%	3131	181	20	20	0.6%	11.2%
13.00	3240	499	35	31	1.1%	6.1%	3726	240	25	21	0.7%	8.7%	3050	186	25	21	0.8%	11.3%
14.00	3580	504	35	31	1.0%	6.1%	3429	224	25	21	0.7%	9.3%	3067	191	25	21	0.8%	10.9%
15.00	4011	493	31	31	0.8%	6.3%	3356	224	21	21	0.6%	9.5%	3034	204	21	21	0.7%	10.4%
16.00	4754	408	31	31	0.7%	7.6%	3416	186	21	21	0.6%	11.4%	3332	193	21	21	0.6%	11.0%
17.00	5120	352	41	31	0.8%	8.7%	3322	173	32	21	1.0%	12.1%	2762	175	32	21	1.1%	12.0%
18.00	3905	317	17	17	0.4%	5.4%	2904	159	8	8	0.3%	5.2%	2653	161	8	8	0.3%	5.2%
19.00	2746	239	19	8	0.7%	3.2%	2248	148	8	8	0.3%	5.1%	2172	138	8	8	0.4%	5.5%
20.00	1785	175	8	8	0.4%	4.3%	1634	107	8	8	0.5%	7.1%	1798	118	8	8	0.4%	6.4%
21.00	1328	133	12	9	0.9%	6.5%	1361	82	12	9	0.9%	10.4%	1306	100	12	9	1.0%	8.6%
22.00	1021	95	12	9	1.2%	9.1%	1216	60	12	9	1.0%	14.3%	777	55	12	9	1.6%	15.8%
23.00	616	81	5	5	0.8%	6.2%	940	61	5	5	0.5%	8.1%	470	57	5	5	1.1%	8.7%
12 hr	45082	5391	386	352	0.9%	6.5%	38262	2791	324	291	0.8%	10.4%	32322	2178	270	237	0.8%	10.9%
24 hr	59629	7383	491	425	0.8%	5.8%	50235	4130	408	363	0.8%	8.8%	42284	3123	354	309	0.8%	9.9%

Link 6 - M2 West

2021 Baseline + K3 Operational + 2021 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	425	108	3	3	0.7%	2.8%	708	120	3	3	0.4%	2.6%	866	66	3	3	0.4%	4.6%
01.00	323	100	3	3	0.9%	3.1%	469	103	3	3	0.7%	3.0%	530	63	3	3	0.6%	4.9%
02.00	338	114	3	3	0.9%	2.7%	395	96	3	3	0.8%	3.2%	351	48	3	3	0.9%	6.4%
03.00	464	157	3	3	0.7%	1.9%	416	117	3	3	0.7%	2.6%	312	68	3	3	1.0%	4.5%
04.00	1072	263	3	3	0.3%	1.2%	563	148	3	3	0.5%	2.1%	335	59	3	3	0.9%	5.2%
05.00	2827	446	3	3	0.1%	0.7%	1196	210	3	3	0.3%	1.5%	684	95	3	3	0.4%	3.2%
06.00	4311	524	8	3	0.2%	0.6%	1847	266	4	3	0.2%	1.2%	1073	123	4	3	0.4%	2.5%
07.00	5698	541	16	15	0.3%	2.7%	2517	304	16	15	0.6%	4.8%	1403	134	14	13	1.0%	9.8%
08.00	5266	594	18	15	0.3%	2.5%	3228	310	18	15	0.6%	4.7%	1875	138	16	13	0.9%	9.5%
09.00	4366	619	14	14	0.3%	2.3%	3623	308	14	14	0.4%	4.5%	2777	186	12	12	0.4%	6.7%
10.00	4027	606	14	14	0.4%	2.4%	4143	300	14	14	0.3%	4.7%	3757	214	12	12	0.3%	5.8%
11.00	4020	590	14	14	0.4%	2.4%	4593	281	14	14	0.3%	5.0%	4295	242	12	12	0.3%	5.2%
12.00	4370	630	14	14	0.3%	2.3%	4817	258	14	14	0.3%	5.4%	4629	216	12	12	0.3%	5.8%
13.00	4534	652	16	15	0.4%	2.3%	4737	256	14	13	0.3%	5.0%	4395	227	14	13	0.3%	5.7%
14.00	4825	651	16	15	0.3%	2.3%	4362	250	14	13	0.3%	5.2%	4003	225	14	13	0.4%	5.7%
15.00	5332	633	15	15	0.3%	2.4%	4189	234	13	13	0.3%	5.6%	3825	215	13	13	0.3%	6.1%
16.00	6273	511	15	15	0.2%	2.9%	4411	213	13	13	0.3%	6.1%	4276	200	13	13	0.3%	6.5%
17.00	6668	417	18	15	0.3%	3.5%	4142	182	16	13	0.4%	7.1%	3845	188	16	13	0.4%	6.9%
18.00	4988	351	7	7	0.1%	1.9%	3662	169	5	5	0.1%	3.0%	3397	154	5	5	0.2%	3.3%
19.00	3290	269	8	5	0.2%	1.7%	2803	137	5	5	0.2%	3.4%	2805	138	5	5	0.2%	3.4%
20.00	2268	184	5	5	0.2%	2.6%	2026	99	5	5	0.2%	4.8%	2118	100	5	5	0.2%	4.7%
21.00	1664	129	6	5	0.4%	4.1%	1572	80	6	5	0.4%	6.7%	1500	85	6	5	0.4%	6.3%
22.00	1335	109	6	5	0.5%	4.9%	1564	60	6	5	0.4%	8.8%	965	59	6	5	0.7%	9.1%
23.00	796	105	3	3	0.4%	2.9%	1210	66	3	3	0.3%	4.7%	553	76	3	3	0.6%	4.0%
12 hr	60367	6794	178	168	0.3%	2.5%	48427	3066	165	155	0.3%	5.1%	42475	2338	156	146	0.4%	6.3%
24 hr	79481	9302	232	212	0.3%	2.3%	63195	4567	213	200	0.3%	4.4%	54569	3316	204	191	0.4%	5.8%

Link 7 - M2 East

2021 Baseline + K3 Operational + 2021 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.1%	0.3%	649	110	0	0	0.1%	0.3%	795	60	0	0	0.0%	0.6%
01.00	296	92	0	0	0.1%	0.4%	430	94	0	0	0.1%	0.4%	487	57	0	0	0.1%	0.6%
02.00	310	104	0	0	0.1%	0.3%	363	88	0	0	0.1%	0.4%	322	44	0	0	0.1%	0.8%
03.00	425	144	0	0	0.1%	0.2%	382	107	0	0	0.1%	0.3%	287	62	0	0	0.1%	0.5%
04.00	983	241	0	0	0.0%	0.1%	516	136	0	0	0.1%	0.2%	307	53	0	0	0.1%	0.6%
05.00	2574	394	0	0	0.0%	0.1%	1081	177	0	0	0.0%	0.2%	611	72	0	0	0.1%	0.5%
06.00	3904	453	3	0	0.1%	0.1%	1646	217	1	0	0.1%	0.2%	935	85	1	0	0.1%	0.4%
07.00	5178	470	3	3	0.1%	0.5%	2279	254	3	3	0.1%	1.0%	1254	97	2	1	0.2%	1.5%
08.00	4757	519	4	3	0.1%	0.5%	2929	261	4	3	0.1%	1.0%	1685	102	3	1	0.2%	1.4%
09.00	3954	538	3	3	0.1%	0.5%	3284	254	2	2	0.1%	1.0%	2510	142	1	1	0.1%	1.0%
10.00	3640	524	3	3	0.1%	0.5%	3757	244	2	2	0.1%	1.0%	3398	165	1	1	0.0%	0.8%
11.00	3636	510	3	3	0.1%	0.5%	4171	227	2	2	0.1%	1.1%	3892	192	1	1	0.0%	0.7%
12.00	3962	556	3	3	0.1%	0.5%	4383	217	2	2	0.1%	1.1%	4208	178	1	1	0.0%	0.8%
13.00	4103	567	3	3	0.1%	0.5%	4297	206	2	1	0.0%	0.7%	3981	179	2	1	0.0%	0.8%
14.00	4374	571	3	3	0.1%	0.5%	3959	205	2	1	0.0%	0.7%	3634	182	2	1	0.1%	0.8%
15.00	4835	550	3	3	0.1%	0.5%	3796	185	1	1	0.0%	0.8%	3463	168	1	1	0.0%	0.8%
16.00	5702	444	3	3	0.0%	0.6%	3993	176	1	1	0.0%	0.8%	3870	164	1	1	0.0%	0.9%
17.00	6055	359	4	3	0.1%	0.8%	3765	148	3	1	0.1%	0.9%	3498	154	3	1	0.1%	0.9%
18.00	4541	304	2	2	0.0%	0.6%	3333	142	1	1	0.0%	0.4%	3092	128	1	1	0.0%	0.4%
19.00	2976	228	2	1	0.1%	0.2%	2551	107	1	1	0.0%	0.5%	2553	108	1	1	0.0%	0.5%
20.00	2064	153	1	1	0.0%	0.3%	1844	75	1	1	0.0%	0.7%	1928	76	1	1	0.0%	0.7%
21.00	1515	108	1	1	0.1%	0.5%	1432	63	1	1	0.1%	0.9%	1366	68	1	1	0.1%	0.9%
22.00	1222	100	1	1	0.1%	0.6%	1435	55	1	1	0.1%	1.0%	886	54	1	1	0.1%	1.1%
23.00	730	96	0	0	0.0%	0.3%	1111	60	0	0	0.0%	0.6%	507	69	0	0	0.1%	0.5%
12 hr	54736	5912	37	32	0.1%	0.5%	43947	2519	28	23	0.1%	0.9%	38485	1850	21	16	0.1%	0.9%
24 hr	72126	8123	47	37	0.1%	0.5%	57388	3808	34	27	0.1%	0.7%	49470	2659	27	21	0.1%	0.8%

Link 8 - Swale Way north of Reams Way Junction

2021 Baseline + K3 Operational + 2021 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	814	51	12	0	1.5%	0.0%	410	19	0	0	0.0%	0.0%	299	12	0	0	0.0%	0.0%
07.00	1413	84	0	0	0.0%	0.4%	348	22	0	0	0.1%	1.4%	154	12	0	0	0.0%	0.0%
08.00	1498	83	1	1	0.1%	1.6%	450	30	0	0	0.1%	1.1%	153	14	0	0	0.0%	0.0%
09.00	949	98	1	1	0.1%	1.3%	570	31	0	0	0.1%	1.0%	322	13	0	0	0.0%	0.0%
10.00	839	106	1	1	0.2%	1.2%	704	34	0	0	0.0%	0.9%	437	18	0	0	0.0%	0.0%
11.00	830	100	1	1	0.2%	1.3%	770	23	0	0	0.0%	1.4%	529	24	0	0	0.0%	0.0%
12.00	931	102	1	1	0.1%	1.3%	732	25	0	0	0.0%	1.3%	556	19	0	0	0.0%	0.0%
13.00	900	93	1	1	0.2%	1.4%	692	33	0	0	0.0%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	1	1	0.1%	1.4%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1187	86	1	1	0.1%	1.5%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	1	1	0.1%	1.7%	723	20	0	0	0.0%	0.0%	709	17	0	0	0.0%	0.0%
17.00	1298	61	1	1	0.1%	2.1%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	0	0	0.0%	0.5%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	653	37	12	0	1.8%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	258	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.1%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13171	1048	14	14	0.1%	1.3%	7299	303	2	2	0.0%	0.6%	5413	184	0	0	0.0%	0.0%
24 hr	16452	1358	38	14	0.2%	1.0%	9270	429	2	2	0.0%	0.4%	6956	280	0	0	0.0%	0.0%

**Link 9 - Swale Way south of Reams Way Junction**

**2021 Baseline + K3 Operational + 2021 Cumulative (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	826	57	12	0	1.5%	0.0%	443	20	0	0	0.0%	0.0%	303	13	0	0	0.0%	0.0%
07.00	1416	85	0	0	0.0%	0.4%	346	27	0	0	0.1%	1.2%	188	12	0	0	0.0%	0.0%
08.00	1431	93	1	1	0.1%	1.4%	484	26	0	0	0.1%	1.2%	155	7	0	0	0.0%	0.0%
09.00	917	105	1	1	0.1%	1.3%	574	35	0	0	0.1%	0.9%	324	15	0	0	0.0%	0.0%
10.00	828	107	1	1	0.2%	1.2%	716	25	0	0	0.0%	1.3%	474	15	0	0	0.0%	0.0%
11.00	850	108	1	1	0.2%	1.2%	775	35	0	0	0.0%	0.9%	506	17	0	0	0.0%	0.0%
12.00	917	98	1	1	0.1%	1.3%	749	34	0	0	0.0%	0.9%	522	15	0	0	0.0%	0.0%
13.00	949	92	1	1	0.1%	1.4%	622	32	0	0	0.0%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	1	1	0.1%	1.3%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	1	1	0.1%	1.4%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1432	81	1	1	0.1%	1.6%	717	19	0	0	0.0%	0.0%	610	14	0	0	0.0%	0.0%
17.00	1369	64	1	1	0.1%	2.1%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	0	0	0.0%	0.5%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	647	34	12	0	1.9%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.1%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13206	1090	14	14	0.1%	1.3%	7144	315	2	2	0.0%	0.6%	5030	194	0	0	0.0%	0.0%
24 hr	16470	1399	38	14	0.2%	1.0%	9186	423	2	2	0.0%	0.4%	6511	278	0	0	0.0%	0.0%

**Link 10 - Swale Way south of Ridham Avenue Roundabout**

**2021 Baseline + K3 Operational + 2021 Cumulative (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	566	37	12	0	2.1%	0.0%	198	12	0	0	0.0%	0.0%	100	5	0	0	0.0%	0.0%
07.00	1312	66	0	0	0.0%	0.5%	319	16	0	0	0.1%	2.0%	138	5	0	0	0.0%	0.0%
08.00	1401	70	1	1	0.1%	1.9%	421	17	0	0	0.1%	1.9%	139	4	0	0	0.0%	0.0%
09.00	869	82	1	1	0.2%	1.6%	541	18	0	0	0.1%	1.8%	312	4	0	0	0.0%	0.0%
10.00	741	87	1	1	0.2%	1.5%	681	16	0	0	0.0%	2.0%	404	8	0	0	0.0%	0.0%
11.00	739	75	1	1	0.2%	1.8%	763	11	0	0	0.0%	2.9%	518	9	0	0	0.0%	0.0%
12.00	822	81	1	1	0.2%	1.6%	717	15	0	0	0.0%	2.1%	540	11	0	0	0.0%	0.0%
13.00	833	73	1	1	0.2%	1.8%	658	16	0	0	0.0%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	76	1	1	0.1%	1.7%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	1	1	0.1%	1.7%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	1	1	0.1%	2.0%	533	13	0	0	0.0%	0.0%	522	11	0	0	0.0%	0.0%
17.00	1242	55	1	1	0.1%	2.4%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	49	0	0	0.0%	0.6%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	432	20	12	0	2.8%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.1%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12150	859	14	14	0.1%	1.6%	6805	168	2	2	0.0%	1.1%	5024	84	0	0	0.0%	0.0%
24 hr	14589	1052	38	14	0.3%	1.3%	8378	243	2	2	0.0%	0.8%	6219	120	0	0	0.0%	0.0%



**Link 11 - A249 North of Swale Way Junction**

**2021 Baseline + K3 Operational + 2021 Cumulative (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	1	0	0.0%	0.0%	770	77	0	0	0.0%	0.0%	436	30	0	0	0.0%	0.0%
07.00	3011	190	0	0	0.0%	0.1%	1138	81	0	0	0.0%	0.3%	581	26	0	0	0.0%	0.0%
08.00	2710	235	1	0	0.0%	0.2%	1542	83	1	0	0.0%	0.3%	871	31	0	0	0.0%	0.0%
09.00	2053	237	0	0	0.0%	0.2%	1887	76	0	0	0.0%	0.3%	1368	48	0	0	0.0%	0.0%
10.00	1965	234	0	0	0.0%	0.2%	2223	85	0	0	0.0%	0.3%	2020	41	0	0	0.0%	0.0%
11.00	2067	230	0	0	0.0%	0.2%	2492	70	0	0	0.0%	0.4%	2331	38	0	0	0.0%	0.0%
12.00	2199	227	0	0	0.0%	0.2%	2640	62	0	0	0.0%	0.4%	2543	44	0	0	0.0%	0.0%
13.00	2234	221	1	0	0.0%	0.2%	2539	61	0	0	0.0%	0.0%	2416	47	0	0	0.0%	0.0%
14.00	2349	239	1	0	0.0%	0.2%	2405	57	0	0	0.0%	0.0%	2133	42	0	0	0.0%	0.0%
15.00	2574	205	0	0	0.0%	0.2%	2333	45	0	0	0.0%	0.0%	2049	45	0	0	0.0%	0.0%
16.00	3163	169	0	0	0.0%	0.2%	2290	49	0	0	0.0%	0.0%	2114	41	0	0	0.0%	0.0%
17.00	3303	126	1	0	0.0%	0.3%	2188	36	0	0	0.0%	0.0%	1964	39	0	0	0.0%	0.0%
18.00	2284	83	0	0	0.0%	0.3%	1847	36	0	0	0.0%	0.0%	1763	43	0	0	0.0%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	0	0	0.0%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	0	0	0.0%	0.0%	822	25	0	0	0.0%	0.0%	703	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.1%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.1%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29912	2396	6	4	0.0%	0.2%	25525	741	3	1	0.0%	0.2%	22154	485	1	0	0.0%	0.0%
24 hr	37856	3118	7	4	0.0%	0.1%	32339	1116	4	1	0.0%	0.1%	27695	709	2	0	0.0%	0.0%

**Link 1 - Swale Way East of B2005 Groveshurst Roundabout**

**2021 Baseline + K3 Operational + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
	00.00	165	56	0	0	0.0%	0.0%	184	50	0	0	0.0%	0.0%	189	20	0	0	0.0%
01.00	153	51	0	0	0.0%	0.0%	163	60	0	0	0.0%	0.0%	162	19	0	0	0.0%	0.0%
02.00	169	47	0	0	0.0%	0.0%	133	50	0	0	0.0%	0.0%	102	18	0	0	0.0%	0.0%
03.00	247	71	0	0	0.0%	0.0%	170	51	0	0	0.0%	0.0%	87	20	0	0	0.0%	0.0%
04.00	371	85	0	0	0.0%	0.0%	209	66	0	0	0.0%	0.0%	105	21	0	0	0.0%	0.0%
05.00	950	140	0	0	0.0%	0.0%	535	98	0	0	0.0%	0.0%	294	52	0	0	0.0%	0.0%
06.00	1295	194	12	0	0.9%	0.0%	696	139	0	0	0.0%	0.0%	425	80	0	0	0.0%	0.0%
07.00	1921	248	5	5	0.3%	2.0%	713	160	5	5	0.7%	3.2%	300	86	4	4	1.2%	4.3%
08.00	2236	238	6	6	0.3%	2.6%	748	141	5	5	0.7%	3.6%	322	82	4	4	1.1%	4.5%
09.00	1357	261	5	5	0.4%	1.9%	810	164	4	4	0.5%	2.5%	332	90	3	3	0.8%	3.0%
10.00	1239	282	5	5	0.4%	1.8%	918	165	4	4	0.4%	2.5%	351	98	3	3	0.8%	2.7%
11.00	1265	269	5	5	0.4%	1.9%	947	160	4	4	0.4%	2.5%	571	96	3	3	0.5%	2.8%
12.00	1384	254	5	5	0.4%	2.0%	969	137	4	4	0.4%	3.0%	871	80	3	3	0.3%	3.3%
13.00	1500	276	6	6	0.4%	2.1%	930	132	3	3	0.4%	2.5%	538	93	3	3	0.6%	3.6%
14.00	1481	268	6	6	0.4%	2.1%	910	129	3	3	0.4%	2.6%	551	87	3	3	0.6%	3.8%
15.00	1602	264	6	6	0.4%	2.3%	922	135	4	4	0.4%	2.7%	552	90	4	4	0.7%	4.1%
16.00	1731	221	6	6	0.4%	2.8%	992	114	4	4	0.4%	3.2%	834	71	4	4	0.4%	5.2%
17.00	1844	186	6	6	0.3%	3.1%	839	99	3	3	0.4%	3.4%	695	68	3	3	0.5%	4.9%
18.00	1221	148	5	5	0.4%	3.2%	695	77	3	3	0.5%	4.3%	456	46	3	3	0.7%	7.3%
19.00	903	102	15	3	1.6%	2.6%	555	73	3	3	0.5%	3.6%	521	56	3	3	0.5%	4.7%
20.00	549	98	3	3	0.5%	2.7%	406	74	3	3	0.7%	3.6%	369	49	3	3	0.7%	5.4%
21.00	394	73	4	4	0.9%	5.0%	322	54	4	4	1.1%	6.7%	231	38	4	4	1.6%	9.5%
22.00	309	54	4	4	1.2%	6.8%	285	30	4	4	1.3%	12.1%	314	15	4	4	1.2%	24.4%
23.00	203	51	0	0	0.0%	0.0%	209	34	0	0	0.0%	0.0%	202	15	0	0	0.0%	0.0%
12 hr	18780	2915	66	66	0.3%	2.3%	10393	1612	47	47	0.5%	2.9%	6373	985	39	39	0.6%	3.9%
24 hr	24487	3937	102	78	0.4%	2.0%	14260	2393	60	60	0.4%	2.5%	9372	1388	51	51	0.5%	3.7%

**Link 2 - Barge Way North of Swale Roundabout**

**2021 Baseline + K3 Operational + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	133	40	0	0	0.0%	0.0%	138	36	0	0	0.0%	0.0%	105	31	0	0	0.0%	0.0%
01.00	136	37	0	0	0.0%	0.0%	112	31	0	0	0.0%	0.0%	92	30	0	0	0.0%	0.0%
02.00	174	38	0	0	0.0%	0.0%	135	40	0	0	0.0%	0.0%	93	27	0	0	0.0%	0.0%
03.00	228	56	0	0	0.0%	0.0%	171	48	0	0	0.0%	0.0%	86	30	0	0	0.0%	0.0%
04.00	313	68	0	0	0.0%	0.0%	216	62	0	0	0.0%	0.0%	109	33	0	0	0.0%	0.0%
05.00	550	104	0	0	0.0%	0.0%	351	90	0	0	0.0%	0.0%	199	60	0	0	0.0%	0.0%
06.00	539	143	0	0	0.0%	0.0%	318	128	0	0	0.0%	0.0%	177	82	0	0	0.0%	0.0%
07.00	551	179	5	5	0.9%	2.9%	337	145	5	5	1.5%	3.5%	185	102	4	4	2.0%	3.6%
08.00	558	177	5	5	0.9%	2.9%	321	148	5	5	1.6%	3.5%	197	91	4	4	1.9%	4.0%
09.00	466	195	4	4	0.9%	2.1%	308	154	4	4	1.3%	2.7%	179	102	3	3	1.5%	2.6%
10.00	477	201	4	4	0.9%	2.0%	319	143	4	4	1.3%	2.9%	183	106	3	3	1.4%	2.5%
11.00	434	200	4	4	0.9%	2.1%	290	149	4	4	1.4%	2.8%	208	119	3	3	1.3%	2.2%
12.00	448	184	4	4	0.9%	2.2%	269	111	4	4	1.5%	3.7%	243	90	3	3	1.1%	3.0%
13.00	546	208	5	5	0.9%	2.3%	332	119	3	3	1.0%	2.8%	242	109	3	3	1.4%	3.1%
14.00	541	217	5	5	0.9%	2.2%	302	131	3	3	1.1%	2.5%	214	107	3	3	1.6%	3.1%
15.00	538	215	5	5	1.0%	2.4%	317	140	4	4	1.2%	2.6%	206	110	4	4	1.8%	3.3%
16.00	555	180	5	5	0.9%	2.8%	263	94	4	4	1.4%	3.9%	238	100	4	4	1.5%	3.7%
17.00	541	145	5	5	0.9%	3.3%	230	87	3	3	1.4%	3.8%	211	78	3	3	1.6%	4.3%
18.00	388	114	5	5	1.2%	4.2%	192	58	3	3	1.7%	5.8%	148	52	3	3	2.2%	6.4%
19.00	253	90	3	3	1.0%	2.9%	139	74	3	3	1.9%	3.6%	135	59	3	3	2.0%	4.5%
20.00	188	69	3	3	1.4%	3.8%	111	62	3	3	2.4%	4.3%	104	55	3	3	2.5%	4.9%
21.00	154	52	4	4	2.4%	7.1%	98	45	4	4	3.7%	8.1%	83	39	4	4	4.4%	9.3%
22.00	118	37	4	4	3.1%	9.9%	76	28	4	4	4.8%	13.0%	82	20	4	4	4.5%	18.3%
23.00	148	46	0	0	0.0%	0.0%	82	29	0	0	0.0%	0.0%	79	25	0	0	0.0%	0.0%
12 hr	6044	2214	56	56	0.9%	2.5%	3480	1477	47	47	1.4%	3.2%	2454	1163	39	39	1.6%	3.3%
24 hr	8978	2994	69	69	0.8%	2.3%	5427	2151	60	60	1.1%	2.8%	3797	1655	51	51	1.3%	3.1%

Link 3 - Barge Way East of Fleet End Roundabout

2021 Baseline + K3 Operational + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	45	23	0	0	0.0%	0.0%	95	19	0	0	0.0%	0.0%	19	15	0	0	0.0%	0.0%
01.00	43	22	0	0	0.0%	0.0%	39	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
02.00	62	24	0	0	0.0%	0.0%	40	30	0	0	0.0%	0.0%	18	15	0	0	0.0%	0.0%
03.00	75	26	0	0	0.0%	0.0%	24	17	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
04.00	116	32	0	0	0.0%	0.0%	43	25	0	0	0.0%	0.0%	25	15	0	0	0.0%	0.0%
05.00	231	41	0	0	0.0%	0.0%	102	22	0	0	0.0%	0.0%	60	16	0	0	0.0%	0.0%
06.00	284	59	0	0	0.0%	0.0%	119	44	0	0	0.0%	0.0%	64	18	0	0	0.0%	0.0%
07.00	337	97	5	5	1.5%	5.3%	161	67	5	5	3.2%	7.6%	93	38	4	4	3.9%	9.7%
08.00	336	105	5	5	1.5%	4.9%	169	71	5	5	3.0%	7.2%	116	35	4	4	3.1%	10.6%
09.00	256	108	4	4	1.6%	3.8%	150	71	4	4	2.7%	5.8%	83	35	3	3	3.2%	7.7%
10.00	245	110	4	4	1.7%	3.7%	138	66	4	4	3.0%	6.2%	83	35	3	3	3.2%	7.7%
11.00	220	107	4	4	1.9%	3.8%	124	52	4	4	3.3%	7.9%	77	37	3	3	3.5%	7.3%
12.00	254	108	4	4	1.6%	3.8%	116	47	4	4	3.6%	8.7%	84	36	3	3	3.2%	7.5%
13.00	292	109	5	5	1.6%	4.4%	139	38	3	3	2.4%	8.8%	119	34	3	3	2.8%	9.9%
14.00	269	119	5	5	1.8%	4.0%	116	37	3	3	2.9%	9.1%	99	34	3	3	3.4%	9.9%
15.00	242	116	5	5	2.1%	4.4%	103	41	4	4	3.5%	9.0%	85	35	4	4	4.3%	10.6%
16.00	274	95	5	5	1.9%	5.4%	104	32	4	4	3.5%	11.6%	98	31	4	4	3.7%	11.9%
17.00	315	75	5	5	1.5%	6.4%	115	29	3	3	2.9%	11.6%	124	28	3	3	2.7%	12.1%
18.00	166	49	5	5	2.9%	9.7%	67	17	3	3	5.0%	19.6%	64	16	3	3	5.2%	20.8%
19.00	93	33	3	3	2.8%	8.0%	52	15	3	3	5.1%	17.7%	55	15	3	3	4.9%	17.7%
20.00	82	32	3	3	3.2%	8.4%	34	17	3	3	7.7%	15.6%	33	15	3	3	8.0%	17.7%
21.00	77	24	4	4	4.8%	15.1%	36	15	4	4	10.0%	24.4%	35	17	4	4	10.3%	21.5%
22.00	50	26	4	4	7.3%	14.1%	21	15	4	4	17.2%	24.4%	28	16	4	4	12.9%	22.9%
23.00	45	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%	22	16	0	0	0.0%	0.0%
12 hr	3206	1199	56	56	1.7%	4.7%	1503	568	47	47	3.1%	8.3%	1126	390	39	39	3.4%	9.9%
24 hr	4409	1564	69	69	1.6%	4.4%	2124	825	60	60	2.8%	7.3%	1518	577	51	51	3.4%	8.9%

Link 4 - A249 South of Swale Way Junction

2021 Baseline + K3 Operational + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	240	67	0	0	0.0%	0.0%	398	68	0	0	0.0%	0.0%	458	45	0	0	0.0%	0.0%
01.00	174	58	0	0	0.0%	0.0%	267	63	0	0	0.0%	0.0%	296	38	0	0	0.0%	0.0%
02.00	172	65	0	0	0.0%	0.0%	227	73	0	0	0.0%	0.0%	209	42	0	0	0.0%	0.0%
03.00	242	83	0	0	0.0%	0.0%	228	73	0	0	0.0%	0.0%	176	44	0	0	0.0%	0.0%
04.00	553	144	0	0	0.0%	0.0%	310	81	0	0	0.0%	0.0%	201	45	0	0	0.0%	0.0%
05.00	1343	244	0	0	0.0%	0.0%	700	145	0	0	0.0%	0.0%	414	80	0	0	0.0%	0.0%
06.00	2383	308	11	0	0.5%	0.0%	1212	186	0	0	0.0%	0.0%	796	114	0	0	0.0%	0.0%
07.00	3160	370	5	5	0.2%	1.4%	1450	224	5	5	0.3%	2.2%	829	131	4	4	0.4%	2.8%
08.00	2917	375	6	6	0.2%	1.6%	1846	236	5	5	0.3%	2.1%	1143	131	4	4	0.3%	2.8%
09.00	2224	388	5	5	0.2%	1.3%	2079	254	4	4	0.2%	1.6%	1652	172	3	3	0.2%	1.5%
10.00	2133	410	5	5	0.2%	1.2%	2374	243	4	4	0.2%	1.7%	2114	188	3	3	0.1%	1.4%
11.00	2167	400	5	5	0.2%	1.2%	2518	238	4	4	0.2%	1.7%	2337	187	3	3	0.1%	1.4%
12.00	2328	394	5	5	0.2%	1.2%	2710	214	4	4	0.1%	1.9%	2197	159	3	3	0.1%	1.7%
13.00	2364	410	6	6	0.2%	1.4%	2646	212	3	3	0.1%	1.6%	2160	167	3	3	0.2%	2.0%
14.00	2606	411	6	6	0.2%	1.4%	2428	198	3	3	0.1%	1.7%	2179	168	3	3	0.2%	2.0%
15.00	2890	406	6	6	0.2%	1.5%	2378	201	4	4	0.2%	1.8%	2148	180	4	4	0.2%	2.0%
16.00	3415	342	6	6	0.2%	1.7%	2475	169	4	4	0.1%	2.2%	2414	167	4	4	0.2%	2.2%
17.00	3701	303	6	6	0.2%	1.8%	2360	159	3	3	0.1%	2.1%	1973	154	3	3	0.2%	2.2%
18.00	2781	262	5	5	0.2%	1.8%	2038	134	3	3	0.2%	2.5%	1863	129	3	3	0.2%	2.6%
19.00	2013	189	14	3	0.7%	1.4%	1601	123	3	3	0.2%	2.2%	1548	115	3	3	0.2%	2.3%
20.00	1277	142	3	3	0.2%	1.9%	1164	91	3	3	0.2%	2.9%	1279	100	3	3	0.2%	2.7%
21.00	956	109	4	4	0.4%	3.4%	973	71	4	4	0.4%	5.2%	935	83	4	4	0.4%	4.4%
22.00	735	74	4	4	0.5%	5.0%	861	49	4	4	0.4%	7.5%	554	45	4	4	0.7%	8.2%
23.00	440	63	0	0	0.0%	0.0%	664	50	0	0	0.0%	0.0%	336	47	0	0	0.0%	0.0%
12 hr	32685	4472	64	64	0.2%	1.4%	27303	2482	47	47	0.2%	1.9%	23009	1933	39	39	0.2%	2.0%
24 hr	43212	6017	99	76	0.2%	1.3%	35910	3554	59	59	0.2%	1.7%	30210	2731	51	51	0.2%	1.9%

Link 5 - A249 between the A2 and M2

2021 Baseline + K3 Operational + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	338	91	0	0	0.0%	0.0%	564	93	0	0	0.0%	0.0%	649	60	0	0	0.0%	0.0%
01.00	243	79	0	0	0.0%	0.0%	377	85	0	0	0.0%	0.0%	419	50	0	0	0.0%	0.0%
02.00	241	87	0	0	0.0%	0.0%	320	99	0	0	0.0%	0.0%	295	55	0	0	0.0%	0.0%
03.00	339	113	0	0	0.0%	0.0%	322	100	0	0	0.0%	0.0%	247	58	0	0	0.0%	0.0%
04.00	782	199	0	0	0.0%	0.0%	438	111	0	0	0.0%	0.0%	282	59	0	0	0.0%	0.0%
05.00	1878	328	0	0	0.0%	0.0%	976	190	0	0	0.0%	0.0%	567	97	0	0	0.0%	0.0%
06.00	3269	406	11	0	0.3%	0.0%	1614	237	0	0	0.0%	0.0%	1018	134	0	0	0.0%	0.0%
07.00	4405	470	5	5	0.1%	1.1%	2004	275	5	5	0.3%	1.9%	1137	153	4	4	0.3%	2.4%
08.00	3990	475	6	6	0.1%	1.2%	2566	293	5	5	0.2%	1.7%	1579	154	4	4	0.2%	2.4%
09.00	3078	491	5	5	0.2%	1.0%	2929	315	4	4	0.1%	1.3%	2325	209	3	3	0.1%	1.3%
10.00	2943	519	5	5	0.2%	0.9%	3350	296	4	4	0.1%	1.4%	3012	230	3	3	0.1%	1.2%
11.00	2997	508	5	5	0.2%	1.0%	3568	290	4	4	0.1%	1.4%	3343	229	3	3	0.1%	1.2%
12.00	3225	506	5	5	0.2%	1.0%	3859	265	4	4	0.1%	1.6%	3149	199	3	3	0.1%	1.3%
13.00	3269	524	6	6	0.2%	1.1%	3747	258	3	3	0.1%	1.3%	3071	203	3	3	0.1%	1.6%
14.00	3609	529	6	6	0.2%	1.1%	3450	242	3	3	0.1%	1.4%	3089	209	3	3	0.1%	1.6%
15.00	4037	518	6	6	0.1%	1.1%	3373	242	4	4	0.1%	1.5%	3051	221	4	4	0.1%	1.7%
16.00	4779	433	6	6	0.1%	1.4%	3433	204	4	4	0.1%	1.8%	3350	211	4	4	0.1%	1.7%
17.00	5155	377	6	6	0.1%	1.5%	3351	191	3	3	0.1%	1.7%	2791	193	3	3	0.1%	1.7%
18.00	3918	329	5	5	0.1%	1.5%	2909	164	3	3	0.1%	2.0%	2658	166	3	3	0.1%	2.0%
19.00	2751	244	14	3	0.5%	1.1%	2253	153	3	3	0.1%	1.7%	2177	143	3	3	0.1%	1.9%
20.00	1790	180	3	3	0.1%	1.5%	1639	112	3	3	0.2%	2.4%	1803	123	3	3	0.1%	2.2%
21.00	1337	138	4	4	0.3%	2.6%	1370	87	4	4	0.3%	4.2%	1315	105	4	4	0.3%	3.5%
22.00	1030	100	4	4	0.4%	3.7%	1225	65	4	4	0.3%	5.6%	786	60	4	4	0.5%	6.1%
23.00	621	86	0	0	0.0%	0.0%	945	66	0	0	0.0%	0.0%	475	62	0	0	0.0%	0.0%
12 hr	45404	5680	64	64	0.1%	1.1%	38539	3034	47	47	0.1%	1.6%	32554	2376	39	39	0.1%	1.6%
24 hr	60022	7731	98	77	0.2%	1.0%	50583	4433	60	60	0.1%	1.4%	42587	3381	51	51	0.1%	1.5%

Link 6 - M2 West

2021 Baseline + K3 Operational + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	428	111	0	0	0.0%	0.0%	711	123	0	0	0.0%	0.0%	869	69	0	0	0.0%	0.0%
01.00	326	103	0	0	0.0%	0.0%	472	106	0	0	0.0%	0.0%	533	66	0	0	0.0%	0.0%
02.00	341	117	0	0	0.0%	0.0%	398	99	0	0	0.0%	0.0%	355	51	0	0	0.0%	0.0%
03.00	467	160	0	0	0.0%	0.0%	419	120	0	0	0.0%	0.0%	315	71	0	0	0.0%	0.0%
04.00	1075	267	0	0	0.0%	0.0%	566	151	0	0	0.0%	0.0%	338	62	0	0	0.0%	0.0%
05.00	2830	449	0	0	0.0%	0.0%	1199	213	0	0	0.0%	0.0%	687	98	0	0	0.0%	0.0%
06.00	4315	527	3	0	0.1%	0.0%	1851	269	0	0	0.0%	0.0%	1077	126	0	0	0.0%	0.0%
07.00	5711	553	2	2	0.0%	0.5%	2530	316	2	2	0.1%	0.8%	1415	145	2	2	0.2%	1.6%
08.00	5282	606	3	3	0.1%	0.5%	3244	322	2	2	0.1%	0.8%	1889	148	2	2	0.1%	1.5%
09.00	4378	631	2	2	0.1%	0.4%	3635	320	2	2	0.1%	0.6%	2788	196	2	2	0.1%	0.8%
10.00	4039	619	2	2	0.1%	0.4%	4155	312	2	2	0.0%	0.6%	3768	225	2	2	0.0%	0.7%
11.00	4032	602	2	2	0.1%	0.4%	4605	293	2	2	0.0%	0.6%	4306	253	2	2	0.0%	0.6%
12.00	4382	642	2	2	0.1%	0.3%	4829	271	2	2	0.0%	0.7%	4639	227	2	2	0.0%	0.7%
13.00	4547	664	3	3	0.1%	0.4%	4749	267	2	2	0.0%	0.8%	4407	238	2	2	0.0%	0.9%
14.00	4838	663	3	3	0.1%	0.4%	4374	261	2	2	0.0%	0.8%	4015	236	2	2	0.1%	0.9%
15.00	5344	645	3	3	0.1%	0.4%	4200	244	2	2	0.1%	0.9%	3835	226	2	2	0.1%	1.0%
16.00	6285	523	3	3	0.0%	0.5%	4422	224	2	2	0.1%	1.0%	4286	211	2	2	0.1%	1.1%
17.00	6683	429	3	3	0.0%	0.6%	4156	192	2	2	0.0%	1.1%	3860	198	2	2	0.1%	1.0%
18.00	4992	355	2	2	0.0%	0.6%	3665	172	2	2	0.1%	1.2%	3400	157	2	2	0.1%	1.3%
19.00	3293	272	5	2	0.1%	0.6%	2806	140	2	2	0.1%	1.2%	2808	141	2	2	0.1%	1.2%
20.00	2271	187	2	2	0.1%	0.9%	2029	102	2	2	0.1%	1.6%	2121	103	2	2	0.1%	1.6%
21.00	1668	132	2	2	0.1%	1.7%	1577	83	2	2	0.1%	2.7%	1505	88	2	2	0.1%	2.6%
22.00	1339	112	2	2	0.2%	2.0%	1568	63	2	2	0.1%	3.6%	970	62	2	2	0.2%	3.7%
23.00	800	108	0	0	0.0%	0.0%	1213	69	0	0	0.0%	0.0%	556	79	0	0	0.0%	0.0%
12 hr	60515	6931	30	30	0.0%	0.4%	48566	3196	25	25	0.1%	0.8%	42608	2461	24	24	0.1%	1.0%
24 hr	79669	9476	45	38	0.1%	0.4%	63375	4733	33	33	0.1%	0.7%	54742	3475	32	32	0.1%	0.9%

Link 7 - M2 East

2021 Baseline + K3 Operational + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.0%	0.0%	650	110	0	0	0.0%	0.0%	795	61	0	0	0.0%	0.0%
01.00	297	92	0	0	0.0%	0.0%	430	94	0	0	0.0%	0.0%	487	58	0	0	0.0%	0.0%
02.00	311	105	0	0	0.0%	0.0%	363	88	0	0	0.0%	0.0%	323	44	0	0	0.0%	0.0%
03.00	426	144	0	0	0.0%	0.0%	382	108	0	0	0.0%	0.0%	287	63	0	0	0.0%	0.0%
04.00	984	242	0	0	0.0%	0.0%	517	136	0	0	0.0%	0.0%	308	54	0	0	0.0%	0.0%
05.00	2575	395	0	0	0.0%	0.0%	1082	178	0	0	0.0%	0.0%	611	72	0	0	0.0%	0.0%
06.00	3905	453	2	0	0.0%	0.0%	1647	217	0	0	0.0%	0.0%	936	86	0	0	0.0%	0.0%
07.00	5181	472	0	0	0.0%	0.1%	2282	256	0	0	0.0%	0.2%	1256	98	0	0	0.0%	0.2%
08.00	4760	521	1	1	0.0%	0.1%	2933	263	0	0	0.0%	0.2%	1688	104	0	0	0.0%	0.2%
09.00	3956	540	1	1	0.0%	0.1%	3286	256	0	0	0.0%	0.1%	2511	143	0	0	0.0%	0.1%
10.00	3642	526	1	1	0.0%	0.1%	3759	246	0	0	0.0%	0.1%	3399	166	0	0	0.0%	0.1%
11.00	3638	512	1	1	0.0%	0.1%	4173	229	0	0	0.0%	0.2%	3893	193	0	0	0.0%	0.1%
12.00	3964	558	1	1	0.0%	0.1%	4386	219	0	0	0.0%	0.2%	4209	180	0	0	0.0%	0.1%
13.00	4106	569	1	1	0.0%	0.1%	4299	207	0	0	0.0%	0.1%	3983	180	0	0	0.0%	0.1%
14.00	4376	573	1	1	0.0%	0.1%	3961	206	0	0	0.0%	0.1%	3636	183	0	0	0.0%	0.1%
15.00	4837	552	1	1	0.0%	0.1%	3797	186	0	0	0.0%	0.1%	3464	169	0	0	0.0%	0.1%
16.00	5704	446	1	1	0.0%	0.2%	3994	177	0	0	0.0%	0.1%	3872	165	0	0	0.0%	0.1%
17.00	6058	361	1	1	0.0%	0.2%	3768	150	0	0	0.0%	0.1%	3501	155	0	0	0.0%	0.1%
18.00	4542	305	0	0	0.0%	0.1%	3333	142	0	0	0.0%	0.2%	3093	128	0	0	0.0%	0.2%
19.00	2976	228	2	0	0.1%	0.1%	2552	107	0	0	0.0%	0.2%	2553	108	0	0	0.0%	0.2%
20.00	2064	154	0	0	0.0%	0.1%	1844	76	0	0	0.0%	0.2%	1928	76	0	0	0.0%	0.2%
21.00	1516	108	0	0	0.0%	0.2%	1433	63	0	0	0.0%	0.4%	1367	68	0	0	0.0%	0.4%
22.00	1223	100	0	0	0.0%	0.2%	1436	55	0	0	0.0%	0.4%	887	54	0	0	0.0%	0.5%
23.00	731	96	0	0	0.0%	0.0%	1111	60	0	0	0.0%	0.0%	508	70	0	0	0.0%	0.0%
12 hr	54766	5936	7	7	0.0%	0.1%	43971	2538	4	4	0.0%	0.1%	38503	1863	3	3	0.0%	0.1%
24 hr	72162	8151	12	8	0.0%	0.1%	57418	3831	5	5	0.0%	0.1%	49494	2676	3	3	0.0%	0.1%



Link 8 - Swale Way north of Reams Way Junction

2021 Baseline + K3 Operational + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	814	51	12	0	1.5%	0.0%	410	19	0	0	0.0%	0.0%	299	12	0	0	0.0%	0.0%
07.00	1414	85	0	0	0.0%	0.0%	349	22	0	0	0.0%	0.0%	154	12	0	0	0.0%	0.0%
08.00	1499	83	1	1	0.1%	1.2%	450	30	0	0	0.0%	0.0%	153	14	0	0	0.0%	0.0%
09.00	950	99	1	1	0.1%	1.0%	571	31	0	0	0.0%	0.0%	322	13	0	0	0.0%	0.0%
10.00	839	106	1	1	0.1%	0.9%	704	34	0	0	0.0%	0.0%	437	18	0	0	0.0%	0.0%
11.00	830	100	1	1	0.1%	1.0%	770	23	0	0	0.0%	0.0%	529	24	0	0	0.0%	0.0%
12.00	932	102	1	1	0.1%	1.0%	732	25	0	0	0.0%	0.0%	556	19	0	0	0.0%	0.0%
13.00	900	93	1	1	0.1%	1.1%	692	33	0	0	0.0%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	1	1	0.1%	1.0%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1188	86	1	1	0.1%	1.2%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	1	1	0.1%	1.3%	723	20	0	0	0.0%	0.0%	709	17	0	0	0.0%	0.0%
17.00	1299	61	1	1	0.1%	1.6%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	0	0	0.0%	0.0%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	653	37	12	0	1.8%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	259	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.0%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13175	1052	10	10	0.1%	1.0%	7301	304	0	0	0.0%	0.0%	5413	184	0	0	0.0%	0.0%
24 hr	16456	1362	34	10	0.2%	0.7%	9273	431	0	0	0.0%	0.0%	6957	280	0	0	0.0%	0.0%

**Link 9 - Swale Way south of Reams Way Junction**

**2021 Baseline + K3 Operational + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	826	57	12	0	1.5%	0.0%	443	20	0	0	0.0%	0.0%	303	13	0	0	0.0%	0.0%
07.00	1416	85	0	0	0.0%	0.0%	347	27	0	0	0.0%	0.0%	188	12	0	0	0.0%	0.0%
08.00	1432	94	1	1	0.1%	1.1%	484	26	0	0	0.0%	0.0%	155	7	0	0	0.0%	0.0%
09.00	917	105	1	1	0.1%	1.0%	575	35	0	0	0.0%	0.0%	324	15	0	0	0.0%	0.0%
10.00	828	107	1	1	0.1%	0.9%	716	25	0	0	0.0%	0.0%	474	15	0	0	0.0%	0.0%
11.00	850	108	1	1	0.1%	0.9%	775	35	0	0	0.0%	0.0%	506	17	0	0	0.0%	0.0%
12.00	917	98	1	1	0.1%	1.0%	749	34	0	0	0.0%	0.0%	522	15	0	0	0.0%	0.0%
13.00	950	92	1	1	0.1%	1.1%	622	32	0	0	0.0%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	1	1	0.1%	1.0%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	1	1	0.1%	1.1%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1433	82	1	1	0.1%	1.2%	717	19	0	0	0.0%	0.0%	610	14	0	0	0.0%	0.0%
17.00	1370	64	1	1	0.1%	1.6%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	0	0	0.0%	0.0%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	647	34	12	0	1.9%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.0%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13210	1093	10	10	0.1%	0.9%	7146	316	0	0	0.0%	0.0%	5030	194	0	0	0.0%	0.0%
24 hr	16474	1403	34	10	0.2%	0.7%	9189	425	0	0	0.0%	0.0%	6512	278	0	0	0.0%	0.0%

**Link 10 - Swale Way south of Ridham Avenue Roundabout**

**2021 Baseline + K3 Operational + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	566	37	12	0	2.1%	0.0%	198	12	0	0	0.0%	0.0%	100	5	0	0	0.0%	0.0%
07.00	1313	67	0	0	0.0%	0.0%	319	16	0	0	0.0%	0.0%	138	5	0	0	0.0%	0.0%
08.00	1401	71	1	1	0.1%	1.4%	421	17	0	0	0.0%	0.0%	139	4	0	0	0.0%	0.0%
09.00	869	83	1	1	0.1%	1.2%	542	18	0	0	0.0%	0.0%	312	4	0	0	0.0%	0.0%
10.00	741	88	1	1	0.1%	1.1%	681	16	0	0	0.0%	0.0%	404	8	0	0	0.0%	0.0%
11.00	740	75	1	1	0.1%	1.3%	764	11	0	0	0.0%	0.0%	518	9	0	0	0.0%	0.0%
12.00	823	81	1	1	0.1%	1.2%	717	15	0	0	0.0%	0.0%	540	11	0	0	0.0%	0.0%
13.00	833	74	1	1	0.1%	1.4%	658	16	0	0	0.0%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	77	1	1	0.1%	1.3%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	1	1	0.1%	1.3%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	1	1	0.1%	1.5%	533	13	0	0	0.0%	0.0%	522	11	0	0	0.0%	0.0%
17.00	1242	56	1	1	0.1%	1.8%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	50	0	0	0.0%	0.0%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	432	20	12	0	2.8%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.0%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12154	863	10	10	0.1%	1.2%	6807	170	0	0	0.0%	0.0%	5024	84	0	0	0.0%	0.0%
24 hr	14593	1055	34	10	0.2%	0.9%	8380	245	0	0	0.0%	0.0%	6219	120	0	0	0.0%	0.0%

**Link 11 - A249 North of Swale Way Junction**

**2021 Baseline + K3 Operational + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact		2021 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.0%	0.0%	436	30	0	0	0.0%	0.0%
07.00	3012	191	0	0	0.0%	0.0%	1139	82	0	0	0.0%	0.0%	581	26	0	0	0.0%	0.0%
08.00	2710	235	0	0	0.0%	0.1%	1543	83	0	0	0.0%	0.0%	872	31	0	0	0.0%	0.0%
09.00	2053	238	0	0	0.0%	0.1%	1887	76	0	0	0.0%	0.1%	1368	48	0	0	0.0%	0.0%
10.00	1965	234	0	0	0.0%	0.1%	2223	85	0	0	0.0%	0.0%	2020	41	0	0	0.0%	0.0%
11.00	2067	230	0	0	0.0%	0.1%	2492	71	0	0	0.0%	0.1%	2331	38	0	0	0.0%	0.0%
12.00	2199	227	0	0	0.0%	0.1%	2640	63	0	0	0.0%	0.1%	2543	44	0	0	0.0%	0.0%
13.00	2235	222	0	0	0.0%	0.1%	2540	61	0	0	0.0%	0.0%	2417	47	0	0	0.0%	0.0%
14.00	2350	239	0	0	0.0%	0.1%	2406	57	0	0	0.0%	0.0%	2134	42	0	0	0.0%	0.0%
15.00	2574	205	0	0	0.0%	0.1%	2333	45	0	0	0.0%	0.0%	2049	45	0	0	0.0%	0.0%
16.00	3164	170	0	0	0.0%	0.1%	2290	49	0	0	0.0%	0.0%	2114	41	0	0	0.0%	0.0%
17.00	3303	126	0	0	0.0%	0.1%	2189	36	0	0	0.0%	0.0%	1964	39	0	0	0.0%	0.0%
18.00	2284	83	0	0	0.0%	0.0%	1847	36	0	0	0.0%	0.0%	1763	43	0	0	0.0%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	0	0	0.0%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	0	0	0.0%	0.0%	822	25	0	0	0.0%	0.0%	704	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.0%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.0%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29916	2398	2	2	0.0%	0.1%	25528	742	0	0	0.0%	0.0%	22156	485	0	0	0.0%	0.0%
24 hr	37860	3121	3	2	0.0%	0.1%	32342	1117	0	0	0.0%	0.0%	27697	709	0	0	0.0%	0.0%

**Link 1 - Swale Way East of B2005 Groveshurst Roundabout**

**2021 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	160	51	5	5	3.1%	9.7%	179	45	5	5	2.8%	10.9%	184	15	5	5	2.7%	32.9%
01.00	148	46	5	5	3.3%	10.8%	158	56	5	5	3.1%	8.9%	157	14	5	5	3.2%	35.3%
02.00	164	42	5	5	3.0%	11.8%	128	45	5	5	3.9%	10.9%	97	13	5	5	5.1%	38.1%
03.00	242	66	5	5	2.1%	7.5%	165	46	5	5	3.0%	10.7%	82	15	5	5	6.0%	32.9%
04.00	366	80	5	5	1.4%	6.2%	204	61	5	5	2.4%	8.2%	100	16	5	5	5.0%	30.9%
05.00	945	135	5	5	0.5%	3.7%	530	93	5	5	0.9%	5.3%	289	47	5	5	1.7%	10.6%
06.00	1285	189	9	5	0.7%	2.6%	687	134	9	5	1.3%	3.7%	416	75	9	5	2.2%	6.6%
07.00	1892	223	34	30	1.8%	13.4%	684	135	34	30	5.0%	22.0%	278	68	25	21	9.2%	31.2%
08.00	2200	213	41	30	1.9%	14.0%	712	117	42	30	5.9%	25.6%	293	64	33	21	11.3%	33.0%
09.00	1333	236	29	29	2.2%	12.2%	785	140	29	29	3.7%	20.7%	314	72	20	20	6.4%	28.0%
10.00	1214	258	29	29	2.4%	11.2%	893	140	29	29	3.2%	20.6%	333	81	20	20	6.1%	25.0%
11.00	1240	244	29	29	2.3%	11.8%	922	136	29	29	3.1%	21.3%	554	78	20	20	3.7%	25.8%
12.00	1359	229	29	29	2.1%	12.6%	944	112	29	29	3.1%	25.7%	854	62	20	20	2.4%	32.6%
13.00	1471	251	34	30	2.3%	11.8%	909	114	25	21	2.8%	18.3%	516	75	25	21	4.9%	27.8%
14.00	1452	243	34	30	2.3%	12.2%	888	111	25	21	2.8%	18.9%	529	70	25	21	4.8%	29.9%
15.00	1577	240	30	30	1.9%	12.5%	904	117	21	21	2.3%	18.1%	535	72	21	21	4.0%	29.5%
16.00	1706	196	30	30	1.7%	15.2%	974	96	21	21	2.2%	22.1%	816	53	21	21	2.6%	40.0%
17.00	1807	162	41	30	2.3%	18.3%	810	81	33	21	4.0%	25.8%	666	50	33	21	4.9%	41.8%
18.00	1209	136	17	17	1.4%	12.4%	690	72	8	8	1.2%	11.6%	451	41	8	8	1.8%	20.3%
19.00	898	97	8	8	0.8%	7.9%	550	68	8	8	1.4%	11.2%	516	51	8	8	1.5%	14.9%
20.00	544	93	8	8	1.4%	8.2%	401	69	8	8	1.9%	11.1%	364	44	8	8	2.1%	17.4%
21.00	384	68	13	9	3.3%	12.7%	313	49	13	9	4.1%	17.5%	221	33	13	9	5.8%	25.8%
22.00	300	49	13	9	4.3%	17.5%	276	25	13	9	4.6%	34.2%	305	10	13	9	4.2%	86.2%
23.00	198	46	5	5	2.5%	10.8%	204	29	5	5	2.4%	17.0%	197	10	5	5	2.5%	49.6%
12 hr	18461	2630	374	340	2.0%	12.9%	10115	1371	325	289	3.2%	21.1%	6138	787	273	237	4.5%	30.1%
24 hr	24096	3593	459	412	1.9%	11.5%	13910	2092	410	361	2.9%	17.3%	9065	1130	358	309	4.0%	27.4%

**Link 2 - Barge Way North of Swale Roundabout**

**2021 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	128	35	5	5	3.9%	14.1%	133	31	5	5	3.7%	15.9%	100	26	5	5	5.0%	18.9%
01.00	131	32	5	5	3.8%	15.6%	107	26	5	5	4.6%	18.9%	87	25	5	5	5.7%	19.7%
02.00	169	33	5	5	2.9%	15.0%	130	35	5	5	3.8%	14.1%	88	22	5	5	5.6%	22.4%
03.00	223	51	5	5	2.2%	9.6%	166	43	5	5	3.0%	11.4%	81	25	5	5	6.1%	19.7%
04.00	308	63	5	5	1.6%	7.9%	211	57	5	5	2.3%	8.8%	104	28	5	5	4.8%	17.6%
05.00	545	99	5	5	0.9%	5.0%	346	85	5	5	1.4%	5.8%	194	55	5	5	2.6%	9.1%
06.00	530	138	9	5	1.7%	3.6%	308	123	9	5	3.0%	4.0%	168	77	9	5	5.5%	6.4%
07.00	522	154	34	30	6.5%	19.6%	308	119	34	30	11.0%	25.3%	163	84	25	21	15.7%	25.3%
08.00	522	152	42	30	8.0%	19.9%	285	123	42	30	14.6%	24.6%	167	73	33	21	19.8%	29.0%
09.00	441	170	29	29	6.5%	17.2%	283	129	29	29	10.1%	22.7%	162	84	20	20	12.5%	24.1%
10.00	453	176	29	29	6.3%	16.6%	294	118	29	29	9.8%	24.7%	166	89	20	20	12.2%	22.8%
11.00	410	175	29	29	7.0%	16.7%	266	124	29	29	10.8%	23.6%	190	101	20	20	10.7%	20.0%
12.00	424	159	29	29	6.8%	18.4%	245	86	29	29	11.7%	33.9%	226	72	20	20	9.0%	28.1%
13.00	517	183	34	30	6.5%	16.4%	310	101	25	21	8.1%	20.7%	220	91	25	21	11.4%	23.0%
14.00	512	192	34	30	6.6%	15.6%	281	113	25	21	9.0%	18.5%	193	89	25	21	13.1%	23.5%
15.00	514	190	30	30	5.8%	15.9%	299	122	21	21	7.1%	17.3%	188	92	21	21	11.3%	23.1%
16.00	530	155	30	30	5.6%	19.5%	245	76	21	21	8.7%	27.9%	221	82	21	21	9.6%	25.8%
17.00	504	120	41	30	8.2%	24.9%	201	69	33	21	16.3%	30.3%	181	60	33	21	18.1%	34.9%
18.00	376	101	17	17	4.5%	17.0%	187	53	8	8	4.4%	15.7%	143	47	8	8	5.8%	17.8%
19.00	248	85	8	8	3.1%	9.0%	134	69	8	8	5.7%	11.0%	130	54	8	8	5.8%	14.1%
20.00	183	64	8	8	4.2%	11.8%	106	57	8	8	7.2%	13.4%	100	50	8	8	7.7%	15.3%
21.00	144	47	13	9	8.9%	18.4%	89	40	13	9	14.5%	21.4%	74	34	13	9	17.5%	25.2%
22.00	109	32	13	9	11.8%	26.9%	67	23	13	9	19.3%	37.2%	73	15	13	9	17.7%	57.2%
23.00	143	41	5	5	3.5%	12.1%	77	24	5	5	6.5%	20.5%	74	20	5	5	6.7%	24.7%
12 hr	5725	1925	375	345	6.6%	17.9%	3203	1234	324	291	10.1%	23.6%	2219	965	273	237	12.3%	24.6%
24 hr	8586	2646	460	417	5.4%	15.7%	5078	1848	409	363	8.1%	19.6%	3490	1397	358	309	10.3%	22.1%

**Link 3 - Barge Way East of Fleet End Roundabout**

**2021 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	18	5	5	12.5%	27.1%	90	14	5	5	5.5%	35.3%	14	10	5	5	35.3%	49.6%
01.00	38	17	5	5	12.9%	29.4%	34	17	5	5	14.5%	29.0%	11	10	5	5	45.1%	49.6%
02.00	57	20	5	5	8.7%	25.4%	35	25	5	5	14.1%	19.7%	13	10	5	5	38.1%	49.6%
03.00	71	21	5	5	7.0%	23.3%	19	12	5	5	26.0%	41.3%	11	10	5	5	45.1%	49.6%
04.00	111	27	5	5	4.5%	18.2%	38	20	5	5	12.9%	24.7%	20	10	5	5	24.7%	49.6%
05.00	226	36	5	5	2.2%	13.9%	97	17	5	5	5.1%	29.0%	55	11	5	5	9.0%	45.1%
06.00	275	54	9	5	3.4%	9.1%	109	39	9	5	8.4%	12.6%	55	13	9	5	16.8%	38.1%
07.00	308	72	34	30	11.2%	41.8%	132	42	34	30	26.1%	71.4%	71	20	25	21	35.7%	106.0%
08.00	299	80	42	30	14.1%	37.6%	132	46	42	30	31.8%	65.2%	87	17	33	21	38.2%	125.0%
09.00	231	83	29	29	12.7%	35.2%	125	46	29	29	23.4%	63.0%	65	17	20	20	31.1%	119.1%
10.00	220	85	29	29	13.3%	34.2%	113	41	29	29	25.8%	70.8%	66	17	20	20	30.8%	119.1%
11.00	195	82	29	29	15.0%	35.6%	98	27	29	29	29.7%	107.7%	59	19	20	20	34.3%	106.4%
12.00	228	83	29	29	12.8%	35.1%	91	22	29	29	32.2%	132.4%	66	18	20	20	30.5%	112.4%
13.00	262	84	34	30	13.0%	35.7%	117	20	25	21	21.5%	104.3%	98	16	25	21	25.8%	130.7%
14.00	240	94	34	30	14.2%	31.9%	94	19	25	21	26.7%	109.9%	77	16	25	21	32.6%	130.7%
15.00	217	91	30	30	13.9%	33.3%	86	23	21	21	24.8%	92.0%	67	17	21	21	31.5%	124.9%
16.00	249	69	30	30	12.1%	43.5%	87	14	21	21	24.5%	151.3%	81	13	21	21	26.4%	163.0%
17.00	278	50	42	30	15.0%	59.5%	86	11	33	21	38.2%	190.0%	95	10	33	21	34.5%	209.2%
18.00	154	37	17	17	11.2%	46.6%	62	12	8	8	13.4%	68.9%	59	11	8	8	14.1%	75.3%
19.00	88	28	8	8	8.6%	26.8%	47	10	8	8	16.3%	76.2%	50	10	8	8	15.3%	76.2%
20.00	77	27	8	8	9.8%	28.6%	29	12	8	8	25.9%	63.4%	28	10	8	8	26.8%	76.2%
21.00	67	19	13	9	19.1%	44.6%	27	10	13	9	47.3%	86.2%	26	12	13	9	49.1%	71.7%
22.00	41	21	13	9	31.5%	41.2%	12	10	13	9	106.9%	86.2%	19	11	13	9	67.3%	78.3%
23.00	40	17	5	5	12.4%	29.0%	11	10	5	5	45.1%	49.6%	17	11	5	5	29.0%	45.1%
12 hr	2881	911	381	345	13.2%	37.8%	1223	325	327	291	26.8%	89.6%	891	191	273	237	30.7%	124.0%
24 hr	4012	1216	466	417	11.6%	34.3%	1772	522	412	363	23.3%	69.6%	1210	319	358	309	29.6%	96.9%

**Link 4 - A249 South of Swale Way Junction**

**2021 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	235	62	5	5	2.1%	8.0%	393	63	5	5	1.3%	7.9%	453	40	5	5	1.1%	12.3%
01.00	169	53	5	5	2.9%	9.3%	262	58	5	5	1.9%	8.6%	291	33	5	5	1.7%	14.9%
02.00	167	60	5	5	3.0%	8.3%	222	68	5	5	2.2%	7.3%	204	37	5	5	2.4%	13.6%
03.00	237	78	5	5	2.1%	6.4%	223	68	5	5	2.2%	7.3%	171	39	5	5	2.9%	12.8%
04.00	548	139	5	5	0.9%	3.6%	305	76	5	5	1.6%	6.5%	196	40	5	5	2.5%	12.5%
05.00	1339	239	5	5	0.4%	2.1%	695	140	5	5	0.7%	3.5%	409	75	5	5	1.2%	6.6%
06.00	2374	303	9	5	0.4%	1.6%	1203	181	9	5	0.7%	2.7%	787	109	9	5	1.1%	4.5%
07.00	3131	346	34	29	1.1%	8.5%	1422	200	34	29	2.4%	14.8%	808	113	25	21	3.1%	18.8%
08.00	2881	350	41	29	1.4%	8.4%	1810	211	41	29	2.3%	13.9%	1114	113	33	21	2.9%	18.8%
09.00	2199	364	28	28	1.3%	7.8%	2055	230	28	28	1.4%	12.4%	1635	154	20	20	1.2%	13.2%
10.00	2108	385	28	28	1.4%	7.4%	2350	218	28	28	1.2%	13.0%	2097	171	20	20	1.0%	11.9%
11.00	2143	376	28	28	1.3%	7.6%	2493	213	28	28	1.1%	13.4%	2319	169	20	20	0.9%	12.0%
12.00	2303	369	28	28	1.2%	7.7%	2685	190	28	28	1.1%	15.0%	2179	142	20	20	0.9%	14.3%
13.00	2335	386	33	29	1.4%	7.6%	2625	195	25	21	1.0%	10.7%	2139	150	25	21	1.2%	14.0%
14.00	2577	387	33	29	1.3%	7.5%	2406	180	25	21	1.0%	11.6%	2157	151	25	21	1.2%	13.9%
15.00	2866	382	29	29	1.0%	7.7%	2360	184	21	21	0.9%	11.6%	2130	162	21	21	1.0%	13.1%
16.00	3391	318	29	29	0.9%	9.3%	2458	151	21	21	0.9%	14.0%	2396	150	21	21	0.9%	14.2%
17.00	3665	279	40	29	1.1%	10.5%	2331	142	32	21	1.4%	14.8%	1944	136	32	21	1.7%	15.4%
18.00	2769	250	17	17	0.6%	6.6%	2033	129	8	8	0.4%	6.4%	1858	124	8	8	0.4%	6.7%
19.00	2008	184	8	8	0.4%	4.1%	1596	118	8	8	0.5%	6.5%	1543	111	8	8	0.5%	6.9%
20.00	1272	137	8	8	0.6%	5.6%	1159	86	8	8	0.7%	8.8%	1274	95	8	8	0.6%	8.1%
21.00	947	104	13	9	1.3%	8.3%	964	66	13	9	1.3%	13.1%	926	78	13	9	1.4%	11.0%
22.00	726	69	13	9	1.7%	12.5%	852	44	13	9	1.5%	19.6%	545	40	13	9	2.3%	21.6%
23.00	435	58	5	5	1.1%	8.5%	659	45	5	5	0.8%	11.1%	331	42	5	5	1.5%	11.9%
12 hr	32369	4192	371	336	1.1%	8.0%	27028	2243	321	286	1.2%	12.8%	22776	1734	272	237	1.2%	13.7%
24 hr	42824	5677	455	408	1.1%	7.2%	35563	3254	406	359	1.1%	11.0%	29905	2473	356	309	1.2%	12.5%



Link 5 - A249 between the A2 and M2																		
2021 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact																		
Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	333	86	5	5	1.5%	5.8%	559	88	5	5	0.9%	5.7%	644	55	5	5	0.8%	9.0%
01.00	238	74	5	5	2.1%	6.7%	372	80	5	5	1.3%	6.2%	414	45	5	5	1.2%	11.0%
02.00	236	82	5	5	2.1%	6.0%	315	94	5	5	1.6%	5.3%	290	50	5	5	1.7%	10.0%
03.00	334	108	5	5	1.5%	4.6%	317	95	5	5	1.6%	5.2%	242	53	5	5	2.1%	9.3%
04.00	777	194	5	5	0.6%	2.6%	433	106	5	5	1.1%	4.7%	277	54	5	5	1.8%	9.2%
05.00	1873	323	5	5	0.3%	1.5%	971	185	5	5	0.5%	2.7%	562	92	5	5	0.9%	5.4%
06.00	3260	401	9	5	0.3%	1.2%	1605	232	9	5	0.5%	2.1%	1009	129	9	5	0.9%	3.9%
07.00	4376	445	34	30	0.8%	6.8%	1975	250	34	30	1.7%	12.1%	1116	135	25	21	2.3%	15.7%
08.00	3954	450	41	30	1.0%	6.7%	2530	268	41	30	1.6%	11.3%	1550	137	32	21	2.1%	15.5%
09.00	3053	466	29	29	1.0%	6.3%	2904	290	29	29	1.0%	10.1%	2308	191	20	20	0.9%	10.6%
10.00	2918	494	29	29	1.0%	5.9%	3325	271	29	29	0.9%	10.8%	2994	212	20	20	0.7%	9.5%
11.00	2971	482	29	29	1.0%	6.1%	3543	265	29	29	0.8%	11.0%	3325	212	20	20	0.6%	9.6%
12.00	3200	481	29	29	0.9%	6.1%	3834	240	29	29	0.8%	12.2%	3131	181	20	20	0.6%	11.2%
13.00	3240	499	34	30	1.0%	6.0%	3726	240	25	21	0.7%	8.7%	3050	186	25	21	0.8%	11.3%
14.00	3580	504	34	30	0.9%	5.9%	3429	224	25	21	0.7%	9.3%	3067	191	25	21	0.8%	10.9%
15.00	4011	493	30	30	0.8%	6.1%	3356	224	21	21	0.6%	9.5%	3034	204	21	21	0.7%	10.4%
16.00	4754	408	30	30	0.6%	7.4%	3416	186	21	21	0.6%	11.4%	3332	193	21	21	0.6%	11.0%
17.00	5120	352	41	30	0.8%	8.5%	3322	173	32	21	1.0%	12.1%	2762	175	32	21	1.1%	12.0%
18.00	3905	317	17	17	0.4%	5.4%	2904	159	8	8	0.3%	5.2%	2653	161	8	8	0.3%	5.2%
19.00	2746	239	8	8	0.3%	3.2%	2248	148	8	8	0.3%	5.1%	2172	138	8	8	0.4%	5.5%
20.00	1785	175	8	8	0.4%	4.3%	1634	107	8	8	0.5%	7.1%	1798	118	8	8	0.4%	6.4%
21.00	1328	133	12	9	0.9%	6.5%	1361	82	12	9	0.9%	10.4%	1306	100	12	9	1.0%	8.6%
22.00	1021	95	12	9	1.2%	9.1%	1216	60	12	9	1.0%	14.3%	777	55	12	9	1.6%	15.8%
23.00	616	81	5	5	0.8%	6.2%	940	61	5	5	0.5%	8.1%	470	57	5	5	1.1%	8.7%
12 hr	45082	5391	378	345	0.8%	6.4%	38262	2791	324	291	0.8%	10.4%	32322	2178	270	237	0.8%	10.9%
24 hr	59629	7383	462	417	0.8%	5.6%	50235	4130	408	363	0.8%	8.8%	42284	3123	354	309	0.8%	9.9%

Link 6 - M2 West

2021 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	425	108	3	3	0.7%	2.8%	708	120	3	3	0.4%	2.6%	866	66	3	3	0.4%	4.6%
01.00	323	100	3	3	0.9%	3.1%	469	103	3	3	0.7%	3.0%	530	63	3	3	0.6%	4.9%
02.00	338	114	3	3	0.9%	2.7%	395	96	3	3	0.8%	3.2%	351	48	3	3	0.9%	6.4%
03.00	464	157	3	3	0.7%	1.9%	416	117	3	3	0.7%	2.6%	312	68	3	3	1.0%	4.5%
04.00	1072	263	3	3	0.3%	1.2%	563	148	3	3	0.5%	2.1%	335	59	3	3	0.9%	5.2%
05.00	2827	446	3	3	0.1%	0.7%	1196	210	3	3	0.3%	1.5%	684	95	3	3	0.4%	3.2%
06.00	4311	524	4	3	0.1%	0.6%	1847	266	4	3	0.2%	1.2%	1073	123	4	3	0.4%	2.5%
07.00	5698	541	16	15	0.3%	2.7%	2517	304	16	15	0.6%	4.8%	1403	134	14	13	1.0%	9.8%
08.00	5266	594	18	15	0.3%	2.5%	3228	310	18	15	0.6%	4.7%	1875	138	16	13	0.9%	9.5%
09.00	4366	619	14	14	0.3%	2.3%	3623	308	14	14	0.4%	4.5%	2777	186	12	12	0.4%	6.7%
10.00	4027	606	14	14	0.3%	2.3%	4143	300	14	14	0.3%	4.7%	3757	214	12	12	0.3%	5.8%
11.00	4020	590	14	14	0.3%	2.4%	4593	281	14	14	0.3%	5.0%	4295	242	12	12	0.3%	5.2%
12.00	4370	630	14	14	0.3%	2.2%	4817	258	14	14	0.3%	5.4%	4629	216	12	12	0.3%	5.8%
13.00	4534	652	16	14	0.3%	2.2%	4737	256	14	13	0.3%	5.0%	4395	227	14	13	0.3%	5.7%
14.00	4825	651	16	14	0.3%	2.2%	4362	250	14	13	0.3%	5.2%	4003	225	14	13	0.4%	5.7%
15.00	5332	633	15	15	0.3%	2.3%	4189	234	13	13	0.3%	5.6%	3825	215	13	13	0.3%	6.1%
16.00	6273	511	15	15	0.2%	2.9%	4411	213	13	13	0.3%	6.1%	4276	200	13	13	0.3%	6.5%
17.00	6668	417	18	14	0.3%	3.5%	4142	182	16	13	0.4%	7.1%	3845	188	16	13	0.4%	6.9%
18.00	4988	351	7	7	0.1%	1.9%	3662	169	5	5	0.1%	3.0%	3397	154	5	5	0.2%	3.3%
19.00	3290	269	5	5	0.1%	1.7%	2803	137	5	5	0.2%	3.4%	2805	138	5	5	0.2%	3.4%
20.00	2268	184	5	5	0.2%	2.6%	2026	99	5	5	0.2%	4.8%	2118	100	5	5	0.2%	4.7%
21.00	1664	129	6	5	0.4%	4.1%	1572	80	6	5	0.4%	6.7%	1500	85	6	5	0.4%	6.3%
22.00	1335	109	6	5	0.5%	4.9%	1564	60	6	5	0.4%	8.8%	965	59	6	5	0.7%	9.1%
23.00	796	105	3	3	0.4%	2.9%	1210	66	3	3	0.3%	4.7%	553	76	3	3	0.6%	4.0%
12 hr	60367	6794	174	164	0.3%	2.4%	48427	3066	165	155	0.3%	5.1%	42475	2338	156	146	0.4%	6.3%
24 hr	79481	9302	222	209	0.3%	2.2%	63195	4567	213	200	0.3%	4.4%	54569	3316	204	191	0.4%	5.8%

Link 7 - M2 East

2021 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.1%	0.3%	649	110	0	0	0.1%	0.3%	795	60	0	0	0.0%	0.6%
01.00	296	92	0	0	0.1%	0.4%	430	94	0	0	0.1%	0.4%	487	57	0	0	0.1%	0.6%
02.00	310	104	0	0	0.1%	0.3%	363	88	0	0	0.1%	0.4%	322	44	0	0	0.1%	0.8%
03.00	425	144	0	0	0.1%	0.2%	382	107	0	0	0.1%	0.3%	287	62	0	0	0.1%	0.5%
04.00	983	241	0	0	0.0%	0.1%	516	136	0	0	0.1%	0.2%	307	53	0	0	0.1%	0.6%
05.00	2574	394	0	0	0.0%	0.1%	1081	177	0	0	0.0%	0.2%	611	72	0	0	0.1%	0.5%
06.00	3904	453	1	0	0.0%	0.1%	1646	217	1	0	0.1%	0.2%	935	85	1	0	0.1%	0.4%
07.00	5178	470	3	3	0.1%	0.5%	2279	254	3	3	0.1%	1.0%	1254	97	2	1	0.2%	1.5%
08.00	4757	519	4	3	0.1%	0.5%	2929	261	4	3	0.1%	1.0%	1685	102	3	1	0.2%	1.4%
09.00	3954	538	2	2	0.1%	0.5%	3284	254	2	2	0.1%	1.0%	2510	142	1	1	0.1%	1.0%
10.00	3640	524	2	2	0.1%	0.5%	3757	244	2	2	0.1%	1.0%	3398	165	1	1	0.0%	0.8%
11.00	3636	510	2	2	0.1%	0.5%	4171	227	2	2	0.1%	1.1%	3892	192	1	1	0.0%	0.7%
12.00	3962	556	2	2	0.1%	0.4%	4383	217	2	2	0.1%	1.1%	4208	178	1	1	0.0%	0.8%
13.00	4103	567	3	3	0.1%	0.4%	4297	206	2	1	0.0%	0.7%	3981	179	2	1	0.0%	0.8%
14.00	4374	571	3	3	0.1%	0.4%	3959	205	2	1	0.0%	0.7%	3634	182	2	1	0.1%	0.8%
15.00	4835	550	3	3	0.1%	0.5%	3796	185	1	1	0.0%	0.8%	3463	168	1	1	0.0%	0.8%
16.00	5702	444	3	3	0.0%	0.6%	3993	176	1	1	0.0%	0.8%	3870	164	1	1	0.0%	0.9%
17.00	6055	359	4	3	0.1%	0.7%	3765	148	3	1	0.1%	0.9%	3498	154	3	1	0.1%	0.9%
18.00	4541	304	2	2	0.0%	0.6%	3333	142	1	1	0.0%	0.4%	3092	128	1	1	0.0%	0.4%
19.00	2976	228	1	1	0.0%	0.2%	2551	107	1	1	0.0%	0.5%	2553	108	1	1	0.0%	0.5%
20.00	2064	153	1	1	0.0%	0.3%	1844	75	1	1	0.0%	0.7%	1928	76	1	1	0.0%	0.7%
21.00	1515	108	1	1	0.1%	0.5%	1432	63	1	1	0.1%	0.9%	1366	68	1	1	0.1%	0.9%
22.00	1222	100	1	1	0.1%	0.6%	1435	55	1	1	0.1%	1.0%	886	54	1	1	0.1%	1.1%
23.00	730	96	0	0	0.0%	0.3%	1111	60	0	0	0.0%	0.6%	507	69	0	0	0.1%	0.5%
12 hr	54736	5912	34	29	0.1%	0.5%	43947	2519	28	23	0.1%	0.9%	38485	1850	21	16	0.1%	0.9%
24 hr	72126	8123	41	34	0.1%	0.4%	57388	3808	34	27	0.1%	0.7%	49470	2659	27	21	0.1%	0.8%

**Link 8 - Swale Way north of Reams Way Junction**

**2021 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	814	51	0	0	0.0%	0.0%	410	19	0	0	0.0%	0.0%	299	12	0	0	0.0%	0.0%
07.00	1413	84	0	0	0.0%	0.4%	348	22	0	0	0.1%	1.4%	154	12	0	0	0.0%	0.0%
08.00	1498	83	0	0	0.0%	0.4%	450	30	0	0	0.1%	1.1%	153	14	0	0	0.0%	0.0%
09.00	949	98	0	0	0.0%	0.3%	570	31	0	0	0.1%	1.0%	322	13	0	0	0.0%	0.0%
10.00	839	106	0	0	0.0%	0.3%	704	34	0	0	0.0%	0.9%	437	18	0	0	0.0%	0.0%
11.00	830	100	0	0	0.0%	0.3%	770	23	0	0	0.0%	1.4%	529	24	0	0	0.0%	0.0%
12.00	931	102	0	0	0.0%	0.3%	732	25	0	0	0.0%	1.3%	556	19	0	0	0.0%	0.0%
13.00	900	93	0	0	0.0%	0.3%	692	33	0	0	0.0%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	0	0	0.0%	0.3%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1187	86	0	0	0.0%	0.4%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	0	0	0.0%	0.4%	723	20	0	0	0.0%	0.0%	709	17	0	0	0.0%	0.0%
17.00	1298	61	0	0	0.0%	0.5%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	0	0	0.0%	0.5%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	653	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	258	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.1%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13171	1048	4	4	0.0%	0.4%	7299	303	2	2	0.0%	0.6%	5413	184	0	0	0.0%	0.0%
24 hr	16452	1358	4	4	0.0%	0.3%	9270	429	2	2	0.0%	0.4%	6956	280	0	0	0.0%	0.0%

**Link 9 - Swale Way south of Reams Way Junction**

**2021 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	826	57	0	0	0.0%	0.0%	443	20	0	0	0.0%	0.0%	303	13	0	0	0.0%	0.0%
07.00	1416	85	0	0	0.0%	0.4%	346	27	0	0	0.1%	1.2%	188	12	0	0	0.0%	0.0%
08.00	1431	93	0	0	0.0%	0.3%	484	26	0	0	0.1%	1.2%	155	7	0	0	0.0%	0.0%
09.00	917	105	0	0	0.0%	0.3%	574	35	0	0	0.1%	0.9%	324	15	0	0	0.0%	0.0%
10.00	828	107	0	0	0.0%	0.3%	716	25	0	0	0.0%	1.3%	474	15	0	0	0.0%	0.0%
11.00	850	108	0	0	0.0%	0.3%	775	35	0	0	0.0%	0.9%	506	17	0	0	0.0%	0.0%
12.00	917	98	0	0	0.0%	0.3%	749	34	0	0	0.0%	0.9%	522	15	0	0	0.0%	0.0%
13.00	949	92	0	0	0.0%	0.3%	622	32	0	0	0.0%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	0	0	0.0%	0.3%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	0	0	0.0%	0.3%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1432	81	0	0	0.0%	0.4%	717	19	0	0	0.0%	0.0%	610	14	0	0	0.0%	0.0%
17.00	1369	64	0	0	0.0%	0.5%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	0	0	0.0%	0.5%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	647	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.1%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13206	1090	4	4	0.0%	0.3%	7144	315	2	2	0.0%	0.6%	5030	194	0	0	0.0%	0.0%
24 hr	16470	1399	4	4	0.0%	0.3%	9186	423	2	2	0.0%	0.4%	6511	278	0	0	0.0%	0.0%

**Link 10 - Swale Way south of Ridham Avenue Roundabout**

**2021 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	566	37	0	0	0.0%	0.0%	198	12	0	0	0.0%	0.0%	100	5	0	0	0.0%	0.0%
07.00	1312	66	0	0	0.0%	0.5%	319	16	0	0	0.1%	2.0%	138	5	0	0	0.0%	0.0%
08.00	1401	70	0	0	0.0%	0.4%	421	17	0	0	0.1%	1.9%	139	4	0	0	0.0%	0.0%
09.00	869	82	0	0	0.0%	0.4%	541	18	0	0	0.1%	1.8%	312	4	0	0	0.0%	0.0%
10.00	741	87	0	0	0.0%	0.4%	681	16	0	0	0.0%	2.0%	404	8	0	0	0.0%	0.0%
11.00	739	75	0	0	0.0%	0.4%	763	11	0	0	0.0%	2.9%	518	9	0	0	0.0%	0.0%
12.00	822	81	0	0	0.0%	0.4%	717	15	0	0	0.0%	2.1%	540	11	0	0	0.0%	0.0%
13.00	833	73	0	0	0.0%	0.4%	658	16	0	0	0.0%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	76	0	0	0.0%	0.4%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	0	0	0.0%	0.4%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	0	0	0.0%	0.5%	533	13	0	0	0.0%	0.0%	522	11	0	0	0.0%	0.0%
17.00	1242	55	0	0	0.0%	0.6%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	49	0	0	0.0%	0.6%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	432	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.1%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12150	859	4	4	0.0%	0.4%	6805	168	2	2	0.0%	1.1%	5024	84	0	0	0.0%	0.0%
24 hr	14589	1052	4	4	0.0%	0.4%	8378	243	2	2	0.0%	0.8%	6219	120	0	0	0.0%	0.0%

**Link 11 - A249 North of Swale Way Junction**

**2021 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.0%	0.0%	436	30	0	0	0.0%	0.0%
07.00	3011	190	0	0	0.0%	0.1%	1138	81	0	0	0.0%	0.3%	581	26	0	0	0.0%	0.0%
08.00	2710	235	1	0	0.0%	0.1%	1542	83	1	0	0.0%	0.3%	871	31	0	0	0.0%	0.0%
09.00	2053	237	0	0	0.0%	0.1%	1887	76	0	0	0.0%	0.3%	1368	48	0	0	0.0%	0.0%
10.00	1965	234	0	0	0.0%	0.1%	2223	85	0	0	0.0%	0.3%	2020	41	0	0	0.0%	0.0%
11.00	2067	230	0	0	0.0%	0.1%	2492	70	0	0	0.0%	0.4%	2331	38	0	0	0.0%	0.0%
12.00	2199	227	0	0	0.0%	0.1%	2640	62	0	0	0.0%	0.4%	2543	44	0	0	0.0%	0.0%
13.00	2234	221	1	0	0.0%	0.1%	2539	61	0	0	0.0%	0.0%	2416	47	0	0	0.0%	0.0%
14.00	2349	239	1	0	0.0%	0.1%	2405	57	0	0	0.0%	0.0%	2133	42	0	0	0.0%	0.0%
15.00	2574	205	0	0	0.0%	0.1%	2333	45	0	0	0.0%	0.0%	2049	45	0	0	0.0%	0.0%
16.00	3163	169	0	0	0.0%	0.1%	2290	49	0	0	0.0%	0.0%	2114	41	0	0	0.0%	0.0%
17.00	3303	126	1	0	0.0%	0.2%	2188	36	0	0	0.0%	0.0%	1964	39	0	0	0.0%	0.0%
18.00	2284	83	0	0	0.0%	0.3%	1847	36	0	0	0.0%	0.0%	1763	43	0	0	0.0%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	0	0	0.0%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	0	0	0.0%	0.0%	822	25	0	0	0.0%	0.0%	703	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.1%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.1%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29912	2396	4	3	0.0%	0.1%	25525	741	3	1	0.0%	0.2%	22154	485	1	0	0.0%	0.0%
24 hr	37856	3118	5	3	0.0%	0.1%	32339	1116	4	1	0.0%	0.1%	27695	709	2	0	0.0%	0.0%

**Link 1 - Swale Way East of B2005 Groveshurst Roundabout**

**2021 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	165	56	0	0	0.0%	0.0%	184	50	0	0	0.0%	0.0%	189	20	0	0	0.0%	0.0%
01.00	153	51	0	0	0.0%	0.0%	163	60	0	0	0.0%	0.0%	162	19	0	0	0.0%	0.0%
02.00	169	47	0	0	0.0%	0.0%	133	50	0	0	0.0%	0.0%	102	18	0	0	0.0%	0.0%
03.00	247	71	0	0	0.0%	0.0%	170	51	0	0	0.0%	0.0%	87	20	0	0	0.0%	0.0%
04.00	371	85	0	0	0.0%	0.0%	209	66	0	0	0.0%	0.0%	105	21	0	0	0.0%	0.0%
05.00	950	140	0	0	0.0%	0.0%	535	98	0	0	0.0%	0.0%	294	52	0	0	0.0%	0.0%
06.00	1295	194	0	0	0.0%	0.0%	696	139	0	0	0.0%	0.0%	425	80	0	0	0.0%	0.0%
07.00	1921	248	5	5	0.3%	2.0%	713	160	5	5	0.7%	3.2%	300	86	4	4	1.2%	4.3%
08.00	2236	238	5	5	0.2%	2.1%	748	141	5	5	0.7%	3.6%	322	82	4	4	1.1%	4.5%
09.00	1357	261	4	4	0.3%	1.6%	810	164	4	4	0.5%	2.5%	332	90	3	3	0.8%	3.0%
10.00	1239	282	4	4	0.3%	1.4%	918	165	4	4	0.4%	2.5%	351	98	3	3	0.8%	2.7%
11.00	1265	269	4	4	0.3%	1.5%	947	160	4	4	0.4%	2.5%	571	96	3	3	0.5%	2.8%
12.00	1384	254	4	4	0.3%	1.6%	969	137	4	4	0.4%	3.0%	871	80	3	3	0.3%	3.3%
13.00	1500	276	5	5	0.3%	1.7%	930	132	3	3	0.4%	2.5%	538	93	3	3	0.6%	3.6%
14.00	1481	268	5	5	0.3%	1.8%	910	129	3	3	0.4%	2.6%	551	87	3	3	0.6%	3.8%
15.00	1602	264	5	5	0.3%	1.9%	922	135	4	4	0.4%	2.7%	552	90	4	4	0.7%	4.1%
16.00	1731	221	5	5	0.3%	2.3%	992	114	4	4	0.4%	3.2%	834	71	4	4	0.4%	5.2%
17.00	1844	186	5	5	0.3%	2.5%	839	99	3	3	0.4%	3.4%	695	68	3	3	0.5%	4.9%
18.00	1221	148	5	5	0.4%	3.2%	695	77	3	3	0.5%	4.3%	456	46	3	3	0.7%	7.3%
19.00	903	102	3	3	0.3%	2.6%	555	73	3	3	0.5%	3.6%	521	56	3	3	0.5%	4.7%
20.00	549	98	3	3	0.5%	2.7%	406	74	3	3	0.7%	3.6%	369	49	3	3	0.7%	5.4%
21.00	394	73	4	4	0.9%	5.0%	322	54	4	4	1.1%	6.7%	231	38	4	4	1.6%	9.5%
22.00	309	54	4	4	1.2%	6.8%	285	30	4	4	1.3%	12.1%	314	15	4	4	1.2%	24.4%
23.00	203	51	0	0	0.0%	0.0%	209	34	0	0	0.0%	0.0%	202	15	0	0	0.0%	0.0%
12 hr	18780	2915	56	56	0.3%	1.9%	10393	1612	47	47	0.5%	2.9%	6373	985	39	39	0.6%	3.9%
24 hr	24487	3937	68	68	0.3%	1.7%	14260	2393	60	60	0.4%	2.5%	9372	1388	51	51	0.5%	3.7%



**Link 2 - Barge Way North of Swale Roundabout**

**2021 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	133	40	0	0	0.0%	0.0%	138	36	0	0	0.0%	0.0%	105	31	0	0	0.0%	0.0%
01.00	136	37	0	0	0.0%	0.0%	112	31	0	0	0.0%	0.0%	92	30	0	0	0.0%	0.0%
02.00	174	38	0	0	0.0%	0.0%	135	40	0	0	0.0%	0.0%	93	27	0	0	0.0%	0.0%
03.00	228	56	0	0	0.0%	0.0%	171	48	0	0	0.0%	0.0%	86	30	0	0	0.0%	0.0%
04.00	313	68	0	0	0.0%	0.0%	216	62	0	0	0.0%	0.0%	109	33	0	0	0.0%	0.0%
05.00	550	104	0	0	0.0%	0.0%	351	90	0	0	0.0%	0.0%	199	60	0	0	0.0%	0.0%
06.00	539	143	0	0	0.0%	0.0%	318	128	0	0	0.0%	0.0%	177	82	0	0	0.0%	0.0%
07.00	551	179	5	5	0.9%	2.9%	337	145	5	5	1.5%	3.5%	185	102	4	4	2.0%	3.6%
08.00	558	177	5	5	0.9%	2.9%	321	148	5	5	1.6%	3.5%	197	91	4	4	1.9%	4.0%
09.00	466	195	4	4	0.9%	2.1%	308	154	4	4	1.3%	2.7%	179	102	3	3	1.5%	2.6%
10.00	477	201	4	4	0.9%	2.0%	319	143	4	4	1.3%	2.9%	183	106	3	3	1.4%	2.5%
11.00	434	200	4	4	0.9%	2.1%	290	149	4	4	1.4%	2.8%	208	119	3	3	1.3%	2.2%
12.00	448	184	4	4	0.9%	2.2%	269	111	4	4	1.5%	3.7%	243	90	3	3	1.1%	3.0%
13.00	546	208	5	5	0.9%	2.3%	332	119	3	3	1.0%	2.8%	242	109	3	3	1.4%	3.1%
14.00	541	217	5	5	0.9%	2.2%	302	131	3	3	1.1%	2.5%	214	107	3	3	1.6%	3.1%
15.00	538	215	5	5	1.0%	2.4%	317	140	4	4	1.2%	2.6%	206	110	4	4	1.8%	3.3%
16.00	555	180	5	5	0.9%	2.8%	263	94	4	4	1.4%	3.9%	238	100	4	4	1.5%	3.7%
17.00	541	145	5	5	0.9%	3.3%	230	87	3	3	1.4%	3.8%	211	78	3	3	1.6%	4.3%
18.00	388	114	5	5	1.2%	4.2%	192	58	3	3	1.7%	5.8%	148	52	3	3	2.2%	6.4%
19.00	253	90	3	3	1.0%	2.9%	139	74	3	3	1.9%	3.6%	135	59	3	3	2.0%	4.5%
20.00	188	69	3	3	1.4%	3.8%	111	62	3	3	2.4%	4.3%	104	55	3	3	2.5%	4.9%
21.00	154	52	4	4	2.4%	7.1%	98	45	4	4	3.7%	8.1%	83	39	4	4	4.4%	9.3%
22.00	118	37	4	4	3.1%	9.9%	76	28	4	4	4.8%	13.0%	82	20	4	4	4.5%	18.3%
23.00	148	46	0	0	0.0%	0.0%	82	29	0	0	0.0%	0.0%	79	25	0	0	0.0%	0.0%
12 hr	6044	2214	56	56	0.9%	2.5%	3480	1477	47	47	1.4%	3.2%	2454	1163	39	39	1.6%	3.3%
24 hr	8978	2994	69	69	0.8%	2.3%	5427	2151	60	60	1.1%	2.8%	3797	1655	51	51	1.3%	3.1%

**Link 3 - Barge Way East of Fleet End Roundabout**

**2021 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	45	23	0	0	0.0%	0.0%	95	19	0	0	0.0%	0.0%	19	15	0	0	0.0%	0.0%
01.00	43	22	0	0	0.0%	0.0%	39	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
02.00	62	24	0	0	0.0%	0.0%	40	30	0	0	0.0%	0.0%	18	15	0	0	0.0%	0.0%
03.00	75	26	0	0	0.0%	0.0%	24	17	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
04.00	116	32	0	0	0.0%	0.0%	43	25	0	0	0.0%	0.0%	25	15	0	0	0.0%	0.0%
05.00	231	41	0	0	0.0%	0.0%	102	22	0	0	0.0%	0.0%	60	16	0	0	0.0%	0.0%
06.00	284	59	0	0	0.0%	0.0%	119	44	0	0	0.0%	0.0%	64	18	0	0	0.0%	0.0%
07.00	337	97	5	5	1.5%	5.3%	161	67	5	5	3.2%	7.6%	93	38	4	4	3.9%	9.7%
08.00	336	105	5	5	1.5%	4.9%	169	71	5	5	3.0%	7.2%	116	35	4	4	3.1%	10.6%
09.00	256	108	4	4	1.6%	3.8%	150	71	4	4	2.7%	5.8%	83	35	3	3	3.2%	7.7%
10.00	245	110	4	4	1.7%	3.7%	138	66	4	4	3.0%	6.2%	83	35	3	3	3.2%	7.7%
11.00	220	107	4	4	1.9%	3.8%	124	52	4	4	3.3%	7.9%	77	37	3	3	3.5%	7.3%
12.00	254	108	4	4	1.6%	3.8%	116	47	4	4	3.6%	8.7%	84	36	3	3	3.2%	7.5%
13.00	292	109	5	5	1.6%	4.4%	139	38	3	3	2.4%	8.8%	119	34	3	3	2.8%	9.9%
14.00	269	119	5	5	1.8%	4.0%	116	37	3	3	2.9%	9.1%	99	34	3	3	3.4%	9.9%
15.00	242	116	5	5	2.1%	4.4%	103	41	4	4	3.5%	9.0%	85	35	4	4	4.3%	10.6%
16.00	274	95	5	5	1.9%	5.4%	104	32	4	4	3.5%	11.6%	98	31	4	4	3.7%	11.9%
17.00	315	75	5	5	1.5%	6.4%	115	29	3	3	2.9%	11.6%	124	28	3	3	2.7%	12.1%
18.00	166	49	5	5	2.9%	9.7%	67	17	3	3	5.0%	19.6%	64	16	3	3	5.2%	20.8%
19.00	93	33	3	3	2.8%	8.0%	52	15	3	3	5.1%	17.7%	55	15	3	3	4.9%	17.7%
20.00	82	32	3	3	3.2%	8.4%	34	17	3	3	7.7%	15.6%	33	15	3	3	8.0%	17.7%
21.00	77	24	4	4	4.8%	15.1%	36	15	4	4	10.0%	24.4%	35	17	4	4	10.3%	21.5%
22.00	50	26	4	4	7.3%	14.1%	21	15	4	4	17.2%	24.4%	28	16	4	4	12.9%	22.9%
23.00	45	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%	22	16	0	0	0.0%	0.0%
12 hr	3206	1199	56	56	1.7%	4.7%	1503	568	47	47	3.1%	8.3%	1126	390	39	39	3.4%	9.9%
24 hr	4409	1564	69	69	1.6%	4.4%	2124	825	60	60	2.8%	7.3%	1518	577	51	51	3.4%	8.9%

**Link 4 - A249 South of Swale Way Junction**

**2021 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	240	67	0	0	0.0%	0.0%	398	68	0	0	0.0%	0.0%	458	45	0	0	0.0%	0.0%
01.00	174	58	0	0	0.0%	0.0%	267	63	0	0	0.0%	0.0%	296	38	0	0	0.0%	0.0%
02.00	172	65	0	0	0.0%	0.0%	227	73	0	0	0.0%	0.0%	209	42	0	0	0.0%	0.0%
03.00	242	83	0	0	0.0%	0.0%	228	73	0	0	0.0%	0.0%	176	44	0	0	0.0%	0.0%
04.00	553	144	0	0	0.0%	0.0%	310	81	0	0	0.0%	0.0%	201	45	0	0	0.0%	0.0%
05.00	1343	244	0	0	0.0%	0.0%	700	145	0	0	0.0%	0.0%	414	80	0	0	0.0%	0.0%
06.00	2383	308	0	0	0.0%	0.0%	1212	186	0	0	0.0%	0.0%	796	114	0	0	0.0%	0.0%
07.00	3160	370	5	5	0.2%	1.4%	1450	224	5	5	0.3%	2.2%	829	131	4	4	0.4%	2.8%
08.00	2917	375	5	5	0.2%	1.3%	1846	236	5	5	0.3%	2.1%	1143	131	4	4	0.3%	2.8%
09.00	2224	388	4	4	0.2%	1.0%	2079	254	4	4	0.2%	1.6%	1652	172	3	3	0.2%	1.5%
10.00	2133	410	4	4	0.2%	1.0%	2374	243	4	4	0.2%	1.7%	2114	188	3	3	0.1%	1.4%
11.00	2167	400	4	4	0.2%	1.0%	2518	238	4	4	0.2%	1.7%	2337	187	3	3	0.1%	1.4%
12.00	2328	394	4	4	0.2%	1.0%	2710	214	4	4	0.1%	1.9%	2197	159	3	3	0.1%	1.7%
13.00	2364	410	5	5	0.2%	1.1%	2646	212	3	3	0.1%	1.6%	2160	167	3	3	0.2%	2.0%
14.00	2606	411	5	5	0.2%	1.1%	2428	198	3	3	0.1%	1.7%	2179	168	3	3	0.2%	2.0%
15.00	2890	406	5	5	0.2%	1.2%	2378	201	4	4	0.2%	1.8%	2148	180	4	4	0.2%	2.0%
16.00	3415	342	5	5	0.1%	1.5%	2475	169	4	4	0.1%	2.2%	2414	167	4	4	0.2%	2.2%
17.00	3701	303	5	5	0.1%	1.6%	2360	159	3	3	0.1%	2.1%	1973	154	3	3	0.2%	2.2%
18.00	2781	262	5	5	0.2%	1.8%	2038	134	3	3	0.2%	2.5%	1863	129	3	3	0.2%	2.6%
19.00	2013	189	3	3	0.1%	1.4%	1601	123	3	3	0.2%	2.2%	1548	115	3	3	0.2%	2.3%
20.00	1277	142	3	3	0.2%	1.9%	1164	91	3	3	0.2%	2.9%	1279	100	3	3	0.2%	2.7%
21.00	956	109	4	4	0.4%	3.4%	973	71	4	4	0.4%	5.2%	935	83	4	4	0.4%	4.4%
22.00	735	74	4	4	0.5%	5.0%	861	49	4	4	0.4%	7.5%	554	45	4	4	0.7%	8.2%
23.00	440	63	0	0	0.0%	0.0%	664	50	0	0	0.0%	0.0%	336	47	0	0	0.0%	0.0%
12 hr	32685	4472	55	55	0.2%	1.2%	27303	2482	47	47	0.2%	1.9%	23009	1933	39	39	0.2%	2.0%
24 hr	43212	6017	68	68	0.2%	1.1%	35910	3554	59	59	0.2%	1.7%	30210	2731	51	51	0.2%	1.9%

Link 5 - A249 between the A2 and M2																		
2021 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact																		
Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	338	91	0	0	0.0%	0.0%	564	93	0	0	0.0%	0.0%	649	60	0	0	0.0%	0.0%
01.00	243	79	0	0	0.0%	0.0%	377	85	0	0	0.0%	0.0%	419	50	0	0	0.0%	0.0%
02.00	241	87	0	0	0.0%	0.0%	320	99	0	0	0.0%	0.0%	295	55	0	0	0.0%	0.0%
03.00	339	113	0	0	0.0%	0.0%	322	100	0	0	0.0%	0.0%	247	58	0	0	0.0%	0.0%
04.00	782	199	0	0	0.0%	0.0%	438	111	0	0	0.0%	0.0%	282	59	0	0	0.0%	0.0%
05.00	1878	328	0	0	0.0%	0.0%	976	190	0	0	0.0%	0.0%	567	97	0	0	0.0%	0.0%
06.00	3269	406	0	0	0.0%	0.0%	1614	237	0	0	0.0%	0.0%	1018	134	0	0	0.0%	0.0%
07.00	4405	470	5	5	0.1%	1.1%	2004	275	5	5	0.3%	1.9%	1137	153	4	4	0.3%	2.4%
08.00	3990	475	5	5	0.1%	1.1%	2566	293	5	5	0.2%	1.7%	1579	154	4	4	0.2%	2.4%
09.00	3078	491	4	4	0.1%	0.8%	2929	315	4	4	0.1%	1.3%	2325	209	3	3	0.1%	1.3%
10.00	2943	519	4	4	0.1%	0.8%	3350	296	4	4	0.1%	1.4%	3012	230	3	3	0.1%	1.2%
11.00	2997	508	4	4	0.1%	0.8%	3568	290	4	4	0.1%	1.4%	3343	229	3	3	0.1%	1.2%
12.00	3225	506	4	4	0.1%	0.8%	3859	265	4	4	0.1%	1.6%	3149	199	3	3	0.1%	1.3%
13.00	3269	524	5	5	0.1%	0.9%	3747	258	3	3	0.1%	1.3%	3071	203	3	3	0.1%	1.6%
14.00	3609	529	5	5	0.1%	0.9%	3450	242	3	3	0.1%	1.4%	3089	209	3	3	0.1%	1.6%
15.00	4037	518	5	5	0.1%	1.0%	3373	242	4	4	0.1%	1.5%	3051	221	4	4	0.1%	1.7%
16.00	4779	433	5	5	0.1%	1.2%	3433	204	4	4	0.1%	1.8%	3350	211	4	4	0.1%	1.7%
17.00	5155	377	5	5	0.1%	1.3%	3351	191	3	3	0.1%	1.7%	2791	193	3	3	0.1%	1.7%
18.00	3918	329	5	5	0.1%	1.5%	2909	164	3	3	0.1%	2.0%	2658	166	3	3	0.1%	2.0%
19.00	2751	244	3	3	0.1%	1.1%	2253	153	3	3	0.1%	1.7%	2177	143	3	3	0.1%	1.9%
20.00	1790	180	3	3	0.1%	1.5%	1639	112	3	3	0.2%	2.4%	1803	123	3	3	0.1%	2.2%
21.00	1337	138	4	4	0.3%	2.6%	1370	87	4	4	0.3%	4.2%	1315	105	4	4	0.3%	3.5%
22.00	1030	100	4	4	0.4%	3.7%	1225	65	4	4	0.3%	5.6%	786	60	4	4	0.5%	6.1%
23.00	621	86	0	0	0.0%	0.0%	945	66	0	0	0.0%	0.0%	475	62	0	0	0.0%	0.0%
12 hr	45404	5680	56	56	0.1%	1.0%	38539	3034	47	47	0.1%	1.6%	32554	2376	39	39	0.1%	1.6%
24 hr	60022	7731	69	69	0.1%	0.9%	50583	4433	60	60	0.1%	1.4%	42587	3381	51	51	0.1%	1.5%

Link 6 - M2 West

2021 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	428	111	0	0	0.0%	0.0%	711	123	0	0	0.0%	0.0%	869	69	0	0	0.0%	0.0%
01.00	326	103	0	0	0.0%	0.0%	472	106	0	0	0.0%	0.0%	533	66	0	0	0.0%	0.0%
02.00	341	117	0	0	0.0%	0.0%	398	99	0	0	0.0%	0.0%	355	51	0	0	0.0%	0.0%
03.00	467	160	0	0	0.0%	0.0%	419	120	0	0	0.0%	0.0%	315	71	0	0	0.0%	0.0%
04.00	1075	267	0	0	0.0%	0.0%	566	151	0	0	0.0%	0.0%	338	62	0	0	0.0%	0.0%
05.00	2830	449	0	0	0.0%	0.0%	1199	213	0	0	0.0%	0.0%	687	98	0	0	0.0%	0.0%
06.00	4315	527	0	0	0.0%	0.0%	1851	269	0	0	0.0%	0.0%	1077	126	0	0	0.0%	0.0%
07.00	5711	553	2	2	0.0%	0.5%	2530	316	2	2	0.1%	0.8%	1415	145	2	2	0.2%	1.6%
08.00	5282	606	2	2	0.0%	0.4%	3244	322	2	2	0.1%	0.8%	1889	148	2	2	0.1%	1.5%
09.00	4378	631	2	2	0.0%	0.3%	3635	320	2	2	0.1%	0.6%	2788	196	2	2	0.1%	0.8%
10.00	4039	619	2	2	0.0%	0.3%	4155	312	2	2	0.0%	0.6%	3768	225	2	2	0.0%	0.7%
11.00	4032	602	2	2	0.0%	0.3%	4605	293	2	2	0.0%	0.6%	4306	253	2	2	0.0%	0.6%
12.00	4382	642	2	2	0.0%	0.3%	4829	271	2	2	0.0%	0.7%	4639	227	2	2	0.0%	0.7%
13.00	4547	664	2	2	0.1%	0.3%	4749	267	2	2	0.0%	0.8%	4407	238	2	2	0.0%	0.9%
14.00	4838	663	2	2	0.0%	0.3%	4374	261	2	2	0.0%	0.8%	4015	236	2	2	0.1%	0.9%
15.00	5344	645	2	2	0.0%	0.4%	4200	244	2	2	0.1%	0.9%	3835	226	2	2	0.1%	1.0%
16.00	6285	523	2	2	0.0%	0.5%	4422	224	2	2	0.1%	1.0%	4286	211	2	2	0.1%	1.1%
17.00	6683	429	2	2	0.0%	0.5%	4156	192	2	2	0.0%	1.1%	3860	198	2	2	0.1%	1.0%
18.00	4992	355	2	2	0.0%	0.6%	3665	172	2	2	0.1%	1.2%	3400	157	2	2	0.1%	1.3%
19.00	3293	272	2	2	0.0%	0.6%	2806	140	2	2	0.1%	1.2%	2808	141	2	2	0.1%	1.2%
20.00	2271	187	2	2	0.1%	0.9%	2029	102	2	2	0.1%	1.6%	2121	103	2	2	0.1%	1.6%
21.00	1668	132	2	2	0.1%	1.7%	1577	83	2	2	0.1%	2.7%	1505	88	2	2	0.1%	2.6%
22.00	1339	112	2	2	0.2%	2.0%	1568	63	2	2	0.1%	3.6%	970	62	2	2	0.2%	3.7%
23.00	800	108	0	0	0.0%	0.0%	1213	69	0	0	0.0%	0.0%	556	79	0	0	0.0%	0.0%
12 hr	60515	6931	27	27	0.0%	0.4%	48566	3196	25	25	0.1%	0.8%	42608	2461	24	24	0.1%	1.0%
24 hr	79669	9476	35	35	0.0%	0.4%	63375	4733	33	33	0.1%	0.7%	54742	3475	32	32	0.1%	0.9%

Link 7 - M2 East

2021 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.0%	0.0%	650	110	0	0	0.0%	0.0%	795	61	0	0	0.0%	0.0%
01.00	297	92	0	0	0.0%	0.0%	430	94	0	0	0.0%	0.0%	487	58	0	0	0.0%	0.0%
02.00	311	105	0	0	0.0%	0.0%	363	88	0	0	0.0%	0.0%	323	44	0	0	0.0%	0.0%
03.00	426	144	0	0	0.0%	0.0%	382	108	0	0	0.0%	0.0%	287	63	0	0	0.0%	0.0%
04.00	984	242	0	0	0.0%	0.0%	517	136	0	0	0.0%	0.0%	308	54	0	0	0.0%	0.0%
05.00	2575	395	0	0	0.0%	0.0%	1082	178	0	0	0.0%	0.0%	611	72	0	0	0.0%	0.0%
06.00	3905	453	0	0	0.0%	0.0%	1647	217	0	0	0.0%	0.0%	936	86	0	0	0.0%	0.0%
07.00	5181	472	0	0	0.0%	0.1%	2282	256	0	0	0.0%	0.2%	1256	98	0	0	0.0%	0.2%
08.00	4760	521	0	0	0.0%	0.1%	2933	263	0	0	0.0%	0.2%	1688	104	0	0	0.0%	0.2%
09.00	3956	540	0	0	0.0%	0.1%	3286	256	0	0	0.0%	0.1%	2511	143	0	0	0.0%	0.1%
10.00	3642	526	0	0	0.0%	0.1%	3759	246	0	0	0.0%	0.1%	3399	166	0	0	0.0%	0.1%
11.00	3638	512	0	0	0.0%	0.1%	4173	229	0	0	0.0%	0.2%	3893	193	0	0	0.0%	0.1%
12.00	3964	558	0	0	0.0%	0.1%	4386	219	0	0	0.0%	0.2%	4209	180	0	0	0.0%	0.1%
13.00	4106	569	0	0	0.0%	0.1%	4299	207	0	0	0.0%	0.1%	3983	180	0	0	0.0%	0.1%
14.00	4376	573	0	0	0.0%	0.1%	3961	206	0	0	0.0%	0.1%	3636	183	0	0	0.0%	0.1%
15.00	4837	552	0	0	0.0%	0.1%	3797	186	0	0	0.0%	0.1%	3464	169	0	0	0.0%	0.1%
16.00	5704	446	0	0	0.0%	0.1%	3994	177	0	0	0.0%	0.1%	3872	165	0	0	0.0%	0.1%
17.00	6058	361	0	0	0.0%	0.1%	3768	150	0	0	0.0%	0.1%	3501	155	0	0	0.0%	0.1%
18.00	4542	305	0	0	0.0%	0.1%	3333	142	0	0	0.0%	0.2%	3093	128	0	0	0.0%	0.2%
19.00	2976	228	0	0	0.0%	0.1%	2552	107	0	0	0.0%	0.2%	2553	108	0	0	0.0%	0.2%
20.00	2064	154	0	0	0.0%	0.1%	1844	76	0	0	0.0%	0.2%	1928	76	0	0	0.0%	0.2%
21.00	1516	108	0	0	0.0%	0.2%	1433	63	0	0	0.0%	0.4%	1367	68	0	0	0.0%	0.4%
22.00	1223	100	0	0	0.0%	0.2%	1436	55	0	0	0.0%	0.4%	887	54	0	0	0.0%	0.5%
23.00	731	96	0	0	0.0%	0.0%	1111	60	0	0	0.0%	0.0%	508	70	0	0	0.0%	0.0%
12 hr	54766	5936	5	5	0.0%	0.1%	43971	2538	4	4	0.0%	0.1%	38503	1863	3	3	0.0%	0.1%
24 hr	72162	8151	6	6	0.0%	0.1%	57418	3831	5	5	0.0%	0.1%	49494	2676	3	3	0.0%	0.1%

**Link 8 - Swale Way north of Reams Way Junction**

**2021 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	814	51	0	0	0.0%	0.0%	410	19	0	0	0.0%	0.0%	299	12	0	0	0.0%	0.0%
07.00	1414	85	0	0	0.0%	0.0%	349	22	0	0	0.0%	0.0%	154	12	0	0	0.0%	0.0%
08.00	1499	83	0	0	0.0%	0.0%	450	30	0	0	0.0%	0.0%	153	14	0	0	0.0%	0.0%
09.00	950	99	0	0	0.0%	0.0%	571	31	0	0	0.0%	0.0%	322	13	0	0	0.0%	0.0%
10.00	839	106	0	0	0.0%	0.0%	704	34	0	0	0.0%	0.0%	437	18	0	0	0.0%	0.0%
11.00	830	100	0	0	0.0%	0.0%	770	23	0	0	0.0%	0.0%	529	24	0	0	0.0%	0.0%
12.00	932	102	0	0	0.0%	0.0%	732	25	0	0	0.0%	0.0%	556	19	0	0	0.0%	0.0%
13.00	900	93	0	0	0.0%	0.0%	692	33	0	0	0.0%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	0	0	0.0%	0.0%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1188	86	0	0	0.0%	0.0%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	0	0	0.0%	0.0%	723	20	0	0	0.0%	0.0%	709	17	0	0	0.0%	0.0%
17.00	1299	61	0	0	0.0%	0.0%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	0	0	0.0%	0.0%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	653	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	259	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.0%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13175	1052	0	0	0.0%	0.0%	7301	304	0	0	0.0%	0.0%	5413	184	0	0	0.0%	0.0%
24 hr	16456	1362	0	0	0.0%	0.0%	9273	431	0	0	0.0%	0.0%	6957	280	0	0	0.0%	0.0%

**Link 9 - Swale Way south of Reams Way Junction**

**2021 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	826	57	0	0	0.0%	0.0%	443	20	0	0	0.0%	0.0%	303	13	0	0	0.0%	0.0%
07.00	1416	85	0	0	0.0%	0.0%	347	27	0	0	0.0%	0.0%	188	12	0	0	0.0%	0.0%
08.00	1432	94	0	0	0.0%	0.0%	484	26	0	0	0.0%	0.0%	155	7	0	0	0.0%	0.0%
09.00	917	105	0	0	0.0%	0.0%	575	35	0	0	0.0%	0.0%	324	15	0	0	0.0%	0.0%
10.00	828	107	0	0	0.0%	0.0%	716	25	0	0	0.0%	0.0%	474	15	0	0	0.0%	0.0%
11.00	850	108	0	0	0.0%	0.0%	775	35	0	0	0.0%	0.0%	506	17	0	0	0.0%	0.0%
12.00	917	98	0	0	0.0%	0.0%	749	34	0	0	0.0%	0.0%	522	15	0	0	0.0%	0.0%
13.00	950	92	0	0	0.0%	0.0%	622	32	0	0	0.0%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	0	0	0.0%	0.0%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	0	0	0.0%	0.0%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1433	82	0	0	0.0%	0.0%	717	19	0	0	0.0%	0.0%	610	14	0	0	0.0%	0.0%
17.00	1370	64	0	0	0.0%	0.0%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	0	0	0.0%	0.0%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	647	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.0%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13210	1093	0	0	0.0%	0.0%	7146	316	0	0	0.0%	0.0%	5030	194	0	0	0.0%	0.0%
24 hr	16474	1403	0	0	0.0%	0.0%	9189	425	0	0	0.0%	0.0%	6512	278	0	0	0.0%	0.0%



**Link 10 - Swale Way south of Ridham Avenue Roundabout**

**2021 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	566	37	0	0	0.0%	0.0%	198	12	0	0	0.0%	0.0%	100	5	0	0	0.0%	0.0%
07.00	1313	67	0	0	0.0%	0.0%	319	16	0	0	0.0%	0.0%	138	5	0	0	0.0%	0.0%
08.00	1401	71	0	0	0.0%	0.0%	421	17	0	0	0.0%	0.0%	139	4	0	0	0.0%	0.0%
09.00	869	83	0	0	0.0%	0.0%	542	18	0	0	0.0%	0.0%	312	4	0	0	0.0%	0.0%
10.00	741	88	0	0	0.0%	0.0%	681	16	0	0	0.0%	0.0%	404	8	0	0	0.0%	0.0%
11.00	740	75	0	0	0.0%	0.0%	764	11	0	0	0.0%	0.0%	518	9	0	0	0.0%	0.0%
12.00	823	81	0	0	0.0%	0.0%	717	15	0	0	0.0%	0.0%	540	11	0	0	0.0%	0.0%
13.00	833	74	0	0	0.0%	0.0%	658	16	0	0	0.0%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	77	0	0	0.0%	0.0%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	0	0	0.0%	0.0%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	0	0	0.0%	0.0%	533	13	0	0	0.0%	0.0%	522	11	0	0	0.0%	0.0%
17.00	1242	56	0	0	0.0%	0.0%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	50	0	0	0.0%	0.0%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	432	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.0%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12154	863	0	0	0.0%	0.0%	6807	170	0	0	0.0%	0.0%	5024	84	0	0	0.0%	0.0%
24 hr	14593	1055	0	0	0.0%	0.0%	8380	245	0	0	0.0%	0.0%	6219	120	0	0	0.0%	0.0%

**Link 11 - A249 North of Swale Way Junction**

**2021 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact		2021 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.0%	0.0%	436	30	0	0	0.0%	0.0%
07.00	3012	191	0	0	0.0%	0.0%	1139	82	0	0	0.0%	0.0%	581	26	0	0	0.0%	0.0%
08.00	2710	235	0	0	0.0%	0.0%	1543	83	0	0	0.0%	0.0%	872	31	0	0	0.0%	0.0%
09.00	2053	238	0	0	0.0%	0.0%	1887	76	0	0	0.0%	0.1%	1368	48	0	0	0.0%	0.0%
10.00	1965	234	0	0	0.0%	0.0%	2223	85	0	0	0.0%	0.0%	2020	41	0	0	0.0%	0.0%
11.00	2067	230	0	0	0.0%	0.0%	2492	71	0	0	0.0%	0.1%	2331	38	0	0	0.0%	0.0%
12.00	2199	227	0	0	0.0%	0.0%	2640	63	0	0	0.0%	0.1%	2543	44	0	0	0.0%	0.0%
13.00	2235	222	0	0	0.0%	0.0%	2540	61	0	0	0.0%	0.0%	2417	47	0	0	0.0%	0.0%
14.00	2350	239	0	0	0.0%	0.0%	2406	57	0	0	0.0%	0.0%	2134	42	0	0	0.0%	0.0%
15.00	2574	205	0	0	0.0%	0.0%	2333	45	0	0	0.0%	0.0%	2049	45	0	0	0.0%	0.0%
16.00	3164	170	0	0	0.0%	0.0%	2290	49	0	0	0.0%	0.0%	2114	41	0	0	0.0%	0.0%
17.00	3303	126	0	0	0.0%	0.0%	2189	36	0	0	0.0%	0.0%	1964	39	0	0	0.0%	0.0%
18.00	2284	83	0	0	0.0%	0.0%	1847	36	0	0	0.0%	0.0%	1763	43	0	0	0.0%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	0	0	0.0%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	0	0	0.0%	0.0%	822	25	0	0	0.0%	0.0%	704	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.0%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.0%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29916	2398	0	0	0.0%	0.0%	25528	742	0	0	0.0%	0.0%	22156	485	0	0	0.0%	0.0%
24 hr	37860	3121	0	0	0.0%	0.0%	32342	1117	0	0	0.0%	0.0%	27697	709	0	0	0.0%	0.0%

**Link 1 - Swale Way East of B2005 Groveshurst Roundabout**

**2021 Baseline + WKN Construction + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Construction + Cumulative		% Impact		2021 Baseline		Construction + Cumulative		% Impact		2021 Baseline		Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	165	56	0	0	0.0%	0.0%	184	50	0	0	0.0%	0.0%	189	20	0	0	0.0%	0.0%
01.00	153	51	0	0	0.0%	0.0%	163	60	0	0	0.0%	0.0%	162	19	0	0	0.0%	0.0%
02.00	169	47	0	0	0.0%	0.0%	133	50	0	0	0.0%	0.0%	102	18	0	0	0.0%	0.0%
03.00	247	71	0	0	0.0%	0.0%	170	51	0	0	0.0%	0.0%	87	20	0	0	0.0%	0.0%
04.00	371	85	0	0	0.0%	0.0%	209	66	0	0	0.0%	0.0%	105	21	0	0	0.0%	0.0%
05.00	950	140	0	0	0.0%	0.0%	535	98	0	0	0.0%	0.0%	294	52	0	0	0.0%	0.0%
06.00	1295	194	419	0	32.3%	0.0%	696	139	407	0	58.4%	0.0%	425	80	407	0	95.6%	0.0%
07.00	1921	248	8	8	0.4%	3.2%	713	160	8	8	1.1%	5.0%	300	86	8	8	2.7%	9.3%
08.00	2236	238	9	9	0.4%	3.8%	748	141	8	8	1.1%	5.7%	322	82	8	8	2.5%	9.8%
09.00	1357	261	9	9	0.7%	3.4%	810	164	8	8	1.0%	4.9%	332	90	8	8	2.4%	8.9%
10.00	1239	282	9	9	0.7%	3.2%	918	165	8	8	0.9%	4.9%	351	98	8	8	2.3%	8.1%
11.00	1265	269	9	9	0.7%	3.3%	947	160	8	8	0.8%	5.0%	571	96	8	8	1.4%	8.3%
12.00	1384	254	9	9	0.7%	3.5%	969	137	8	8	0.8%	5.8%	871	80	8	8	0.9%	10.0%
13.00	1500	276	8	8	0.5%	2.9%	930	132	7	7	0.8%	5.3%	538	93	7	7	1.3%	7.6%
14.00	1481	268	8	8	0.5%	3.0%	910	129	7	7	0.8%	5.4%	551	87	7	7	1.3%	8.0%
15.00	1602	264	8	8	0.5%	3.0%	922	135	7	7	0.8%	5.2%	552	90	7	7	1.3%	7.8%
16.00	1731	221	8	8	0.5%	3.6%	992	114	407	0	41.0%	0.0%	834	71	407	0	48.8%	0.0%
17.00	1844	186	9	9	0.5%	4.8%	839	99	0	0	0.0%	0.0%	695	68	0	0	0.0%	0.0%
18.00	1221	148	8	8	0.7%	5.4%	695	77	0	0	0.0%	0.0%	456	46	0	0	0.0%	0.0%
19.00	903	102	419	0	46.4%	0.0%	555	73	0	0	0.0%	0.0%	521	56	0	0	0.0%	0.0%
20.00	549	98	0	0	0.0%	0.0%	406	74	0	0	0.0%	0.0%	369	49	0	0	0.0%	0.0%
21.00	394	73	0	0	0.0%	0.0%	322	54	0	0	0.0%	0.0%	231	38	0	0	0.0%	0.0%
22.00	309	54	0	0	0.0%	0.0%	285	30	0	0	0.0%	0.0%	314	15	0	0	0.0%	0.0%
23.00	203	51	0	0	0.0%	0.0%	209	34	0	0	0.0%	0.0%	202	15	0	0	0.0%	0.0%
12 hr	18780	2915	102	102	0.5%	3.5%	10393	1612	476	69	4.6%	4.3%	6373	985	476	69	7.5%	7.0%
24 hr	24487	3937	939	102	3.8%	2.6%	14260	2393	882	69	6.2%	2.9%	9372	1388	882	69	9.4%	5.0%

**Link 2 - Barge Way North of Swale Roundabout**

**2021 Baseline + WKN Construction + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Construction + Cumulative		% Impact		2021 Baseline		Construction + Cumulative		% Impact		2021 Baseline		Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	133	40	0	0	0.0%	0.0%	138	36	0	0	0.0%	0.0%	105	31	0	0	0.0%	0.0%
01.00	136	37	0	0	0.0%	0.0%	112	31	0	0	0.0%	0.0%	92	30	0	0	0.0%	0.0%
02.00	174	38	0	0	0.0%	0.0%	135	40	0	0	0.0%	0.0%	93	27	0	0	0.0%	0.0%
03.00	228	56	0	0	0.0%	0.0%	171	48	0	0	0.0%	0.0%	86	30	0	0	0.0%	0.0%
04.00	313	68	0	0	0.0%	0.0%	216	62	0	0	0.0%	0.0%	109	33	0	0	0.0%	0.0%
05.00	550	104	0	0	0.0%	0.0%	351	90	0	0	0.0%	0.0%	199	60	0	0	0.0%	0.0%
06.00	539	143	407	0	75.5%	0.0%	318	128	407	0	128.1%	0.0%	177	82	407	0	229.9%	0.0%
07.00	551	179	8	8	1.5%	4.5%	337	145	8	8	2.4%	5.5%	185	102	8	8	4.3%	7.9%
08.00	558	177	8	8	1.4%	4.5%	321	148	8	8	2.5%	5.4%	197	91	8	8	4.1%	8.8%
09.00	466	195	8	8	1.7%	4.1%	308	154	8	8	2.6%	5.2%	179	102	8	8	4.5%	7.9%
10.00	477	201	8	8	1.7%	4.0%	319	143	8	8	2.5%	5.6%	183	106	8	8	4.4%	7.5%
11.00	434	200	8	8	1.8%	4.0%	290	149	8	8	2.8%	5.4%	208	119	8	8	3.9%	6.7%
12.00	448	184	8	8	1.8%	4.4%	269	111	8	8	3.0%	7.2%	243	90	8	8	3.3%	8.9%
13.00	546	208	7	7	1.3%	3.4%	332	119	7	7	2.1%	5.9%	242	109	7	7	2.9%	6.4%
14.00	541	217	7	7	1.3%	3.2%	302	131	7	7	2.3%	5.4%	214	107	7	7	3.3%	6.6%
15.00	538	215	7	7	1.3%	3.3%	317	140	7	7	2.2%	5.0%	206	110	7	7	3.4%	6.4%
16.00	555	180	7	7	1.3%	3.9%	263	94	407	0	154.9%	0.0%	238	100	407	0	170.7%	0.0%
17.00	541	145	8	8	1.5%	5.5%	230	87	0	0	0.0%	0.0%	211	78	0	0	0.0%	0.0%
18.00	388	114	8	8	2.1%	7.0%	192	58	0	0	0.0%	0.0%	148	52	0	0	0.0%	0.0%
19.00	253	90	407	0	160.6%	0.0%	139	74	0	0	0.0%	0.0%	135	59	0	0	0.0%	0.0%
20.00	188	69	0	0	0.0%	0.0%	111	62	0	0	0.0%	0.0%	104	55	0	0	0.0%	0.0%
21.00	154	52	0	0	0.0%	0.0%	98	45	0	0	0.0%	0.0%	83	39	0	0	0.0%	0.0%
22.00	118	37	0	0	0.0%	0.0%	76	28	0	0	0.0%	0.0%	82	20	0	0	0.0%	0.0%
23.00	148	46	0	0	0.0%	0.0%	82	29	0	0	0.0%	0.0%	79	25	0	0	0.0%	0.0%
12 hr	6044	2214	92	92	1.5%	4.2%	3480	1477	476	69	13.7%	4.7%	2454	1163	476	69	19.4%	5.9%
24 hr	8978	2994	905	92	10.1%	3.1%	5427	2151	882	69	16.3%	3.2%	3797	1655	882	69	23.2%	4.2%

**Link 3 - Barge Way East of Fleet End Roundabout**

**2021 Baseline + WKN Construction + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Construction + Cumulative		% Impact		2021 Baseline		Construction + Cumulative		% Impact		2021 Baseline		Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	45	23	0	0	0.0%	0.0%	95	19	0	0	0.0%	0.0%	19	15	0	0	0.0%	0.0%
01.00	43	22	0	0	0.0%	0.0%	39	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
02.00	62	24	0	0	0.0%	0.0%	40	30	0	0	0.0%	0.0%	18	15	0	0	0.0%	0.0%
03.00	75	26	0	0	0.0%	0.0%	24	17	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
04.00	116	32	0	0	0.0%	0.0%	43	25	0	0	0.0%	0.0%	25	15	0	0	0.0%	0.0%
05.00	231	41	0	0	0.0%	0.0%	102	22	0	0	0.0%	0.0%	60	16	0	0	0.0%	0.0%
06.00	284	59	407	0	143.2%	0.0%	119	44	407	0	343.0%	0.0%	64	18	407	0	636.4%	0.0%
07.00	337	97	8	8	2.4%	8.2%	161	67	8	8	5.0%	11.9%	93	38	8	8	8.6%	21.3%
08.00	336	105	8	8	2.4%	7.6%	169	71	8	8	4.7%	11.2%	116	35	8	8	6.9%	23.1%
09.00	256	108	8	8	3.1%	7.4%	150	71	8	8	5.3%	11.2%	83	35	8	8	9.7%	23.1%
10.00	245	110	8	8	3.3%	7.2%	138	66	8	8	5.8%	12.1%	83	35	8	8	9.6%	23.1%
11.00	220	107	8	8	3.6%	7.5%	124	52	8	8	6.5%	15.3%	77	37	8	8	10.4%	21.8%
12.00	254	108	8	8	3.2%	7.4%	116	47	8	8	6.9%	17.0%	84	36	8	8	9.5%	22.5%
13.00	292	109	7	7	2.4%	6.4%	139	38	7	7	5.0%	18.6%	119	34	7	7	5.9%	20.8%
14.00	269	119	7	7	2.6%	5.9%	116	37	7	7	6.0%	19.1%	99	34	7	7	7.1%	20.8%
15.00	242	116	7	7	2.9%	6.0%	103	41	7	7	6.8%	17.2%	85	35	7	7	8.2%	20.2%
16.00	274	95	7	7	2.6%	7.4%	104	32	407	0	390.0%	0.0%	98	31	407	0	414.1%	0.0%
17.00	315	75	8	8	2.5%	10.6%	115	29	0	0	0.0%	0.0%	124	28	0	0	0.0%	0.0%
18.00	166	49	8	8	4.8%	16.2%	67	17	0	0	0.0%	0.0%	64	16	0	0	0.0%	0.0%
19.00	93	33	407	0	435.6%	0.0%	52	15	0	0	0.0%	0.0%	55	15	0	0	0.0%	0.0%
20.00	82	32	0	0	0.0%	0.0%	34	17	0	0	0.0%	0.0%	33	15	0	0	0.0%	0.0%
21.00	77	24	0	0	0.0%	0.0%	36	15	0	0	0.0%	0.0%	35	17	0	0	0.0%	0.0%
22.00	50	26	0	0	0.0%	0.0%	21	15	0	0	0.0%	0.0%	28	16	0	0	0.0%	0.0%
23.00	45	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%	22	16	0	0	0.0%	0.0%
12 hr	3206	1199	92	92	2.9%	7.7%	1503	568	476	69	31.7%	12.1%	1126	390	476	69	42.3%	17.7%
24 hr	4409	1564	905	92	20.5%	5.9%	2124	825	882	69	41.5%	8.4%	1518	577	882	69	58.1%	12.0%

Link 4 - A249 South of Swale Way Junction																		
2021 Baseline + WKN Construction + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact																		
Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Construction + Cumulative		% Impact		2021 Baseline		Construction + Cumulative		% Impact		2021 Baseline		Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	240	67	0	0	0.0%	0.0%	398	68	0	0	0.0%	0.0%	458	45	0	0	0.0%	0.0%
01.00	174	58	0	0	0.0%	0.0%	267	63	0	0	0.0%	0.0%	296	38	0	0	0.0%	0.0%
02.00	172	65	0	0	0.0%	0.0%	227	73	0	0	0.0%	0.0%	209	42	0	0	0.0%	0.0%
03.00	242	83	0	0	0.0%	0.0%	228	73	0	0	0.0%	0.0%	176	44	0	0	0.0%	0.0%
04.00	553	144	0	0	0.0%	0.0%	310	81	0	0	0.0%	0.0%	201	45	0	0	0.0%	0.0%
05.00	1343	244	0	0	0.0%	0.0%	700	145	0	0	0.0%	0.0%	414	80	0	0	0.0%	0.0%
06.00	2383	308	401	0	16.8%	0.0%	1212	186	390	0	32.1%	0.0%	796	114	390	0	49.0%	0.0%
07.00	3160	370	8	8	0.3%	2.2%	1450	224	8	8	0.6%	3.6%	829	131	8	8	1.0%	6.1%
08.00	2917	375	9	9	0.3%	2.4%	1846	236	8	8	0.4%	3.4%	1143	131	8	8	0.7%	6.1%
09.00	2224	388	9	9	0.4%	2.3%	2079	254	8	8	0.4%	3.1%	1652	172	8	8	0.5%	4.7%
10.00	2133	410	9	9	0.4%	2.2%	2374	243	8	8	0.3%	3.3%	2114	188	8	8	0.4%	4.2%
11.00	2167	400	9	9	0.4%	2.2%	2518	238	8	8	0.3%	3.4%	2337	187	8	8	0.3%	4.3%
12.00	2328	394	9	9	0.4%	2.3%	2710	214	8	8	0.3%	3.7%	2197	159	8	8	0.4%	5.0%
13.00	2364	410	8	8	0.3%	1.9%	2646	212	7	7	0.3%	3.3%	2160	167	7	7	0.3%	4.2%
14.00	2606	411	8	8	0.3%	1.9%	2428	198	7	7	0.3%	3.5%	2179	168	7	7	0.3%	4.2%
15.00	2890	406	8	8	0.3%	1.9%	2378	201	7	7	0.3%	3.5%	2148	180	7	7	0.3%	3.9%
16.00	3415	342	8	8	0.2%	2.3%	2475	169	390	0	15.7%	0.0%	2414	167	390	0	16.1%	0.0%
17.00	3701	303	9	9	0.2%	2.9%	2360	159	0	0	0.0%	0.0%	1973	154	0	0	0.0%	0.0%
18.00	2781	262	8	8	0.3%	3.1%	2038	134	0	0	0.0%	0.0%	1863	129	0	0	0.0%	0.0%
19.00	2013	189	401	0	19.9%	0.0%	1601	123	0	0	0.0%	0.0%	1548	115	0	0	0.0%	0.0%
20.00	1277	142	0	0	0.0%	0.0%	1164	91	0	0	0.0%	0.0%	1279	100	0	0	0.0%	0.0%
21.00	956	109	0	0	0.0%	0.0%	973	71	0	0	0.0%	0.0%	935	83	0	0	0.0%	0.0%
22.00	735	74	0	0	0.0%	0.0%	861	49	0	0	0.0%	0.0%	554	45	0	0	0.0%	0.0%
23.00	440	63	0	0	0.0%	0.0%	664	50	0	0	0.0%	0.0%	336	47	0	0	0.0%	0.0%
12 hr	32685	4472	101	101	0.3%	2.2%	27303	2482	459	69	1.7%	2.8%	23009	1933	459	69	2.0%	3.6%
24 hr	43212	6017	903	101	2.1%	1.7%	35910	3554	848	69	2.4%	1.9%	30210	2731	848	69	2.8%	2.5%

Link 5 - A249 between the A2 and M2

2021 Baseline + WKN Construction + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Construction + Cumulative		% Impact		2021 Baseline		Construction + Cumulative		% Impact		2021 Baseline		Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	338	91	0	0	0.0%	0.0%	564	93	0	0	0.0%	0.0%	649	60	0	0	0.0%	0.0%
01.00	243	79	0	0	0.0%	0.0%	377	85	0	0	0.0%	0.0%	419	50	0	0	0.0%	0.0%
02.00	241	87	0	0	0.0%	0.0%	320	99	0	0	0.0%	0.0%	295	55	0	0	0.0%	0.0%
03.00	339	113	0	0	0.0%	0.0%	322	100	0	0	0.0%	0.0%	247	58	0	0	0.0%	0.0%
04.00	782	199	0	0	0.0%	0.0%	438	111	0	0	0.0%	0.0%	282	59	0	0	0.0%	0.0%
05.00	1878	328	0	0	0.0%	0.0%	976	190	0	0	0.0%	0.0%	567	97	0	0	0.0%	0.0%
06.00	3269	406	383	0	11.7%	0.0%	1614	237	372	0	23.1%	0.0%	1018	134	372	0	36.6%	0.0%
07.00	4405	470	8	8	0.2%	1.6%	2004	275	8	8	0.4%	2.7%	1137	153	8	8	0.7%	4.9%
08.00	3990	475	8	8	0.2%	1.7%	2566	293	8	8	0.3%	2.6%	1579	154	8	8	0.5%	4.9%
09.00	3078	491	8	8	0.3%	1.7%	2929	315	8	8	0.3%	2.4%	2325	209	8	8	0.3%	3.6%
10.00	2943	519	8	8	0.3%	1.6%	3350	296	8	8	0.2%	2.5%	3012	230	8	8	0.2%	3.3%
11.00	2997	508	8	8	0.3%	1.6%	3568	290	8	8	0.2%	2.6%	3343	229	8	8	0.2%	3.3%
12.00	3225	506	8	8	0.3%	1.6%	3859	265	8	8	0.2%	2.8%	3149	199	8	8	0.2%	3.8%
13.00	3269	524	8	8	0.3%	1.6%	3747	258	8	8	0.2%	2.9%	3071	203	8	8	0.2%	3.7%
14.00	3609	529	8	8	0.2%	1.6%	3450	242	8	8	0.2%	3.1%	3089	209	8	8	0.2%	3.6%
15.00	4037	518	8	8	0.2%	1.6%	3373	242	8	8	0.2%	3.1%	3051	221	8	8	0.2%	3.4%
16.00	4779	433	8	8	0.2%	1.9%	3433	204	372	0	10.8%	0.0%	3350	211	372	0	11.1%	0.0%
17.00	5155	377	8	8	0.2%	2.2%	3351	191	0	0	0.0%	0.0%	2791	193	0	0	0.0%	0.0%
18.00	3918	329	8	8	0.2%	2.3%	2909	164	0	0	0.0%	0.0%	2658	166	0	0	0.0%	0.0%
19.00	2751	244	383	0	13.9%	0.0%	2253	153	0	0	0.0%	0.0%	2177	143	0	0	0.0%	0.0%
20.00	1790	180	0	0	0.0%	0.0%	1639	112	0	0	0.0%	0.0%	1803	123	0	0	0.0%	0.0%
21.00	1337	138	0	0	0.0%	0.0%	1370	87	0	0	0.0%	0.0%	1315	105	0	0	0.0%	0.0%
22.00	1030	100	0	0	0.0%	0.0%	1225	65	0	0	0.0%	0.0%	786	60	0	0	0.0%	0.0%
23.00	621	86	0	0	0.0%	0.0%	945	66	0	0	0.0%	0.0%	475	62	0	0	0.0%	0.0%
12 hr	45404	5680	98	98	0.2%	1.7%	38539	3034	440	68	1.1%	2.2%	32554	2376	440	68	1.4%	2.8%
24 hr	60022	7731	865	98	1.4%	1.3%	50583	4433	812	68	1.6%	1.5%	42587	3381	812	68	1.9%	2.0%

Link 6 - M2 West

2021 Baseline + WKN Construction + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Construction + Cumulative		% Impact		2021 Baseline		Construction + Cumulative		% Impact		2021 Baseline		Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	428	111	0	0	0.0%	0.0%	711	123	0	0	0.0%	0.0%	869	69	0	0	0.0%	0.0%
01.00	326	103	0	0	0.0%	0.0%	472	106	0	0	0.0%	0.0%	533	66	0	0	0.0%	0.0%
02.00	341	117	0	0	0.0%	0.0%	398	99	0	0	0.0%	0.0%	355	51	0	0	0.0%	0.0%
03.00	467	160	0	0	0.0%	0.0%	419	120	0	0	0.0%	0.0%	315	71	0	0	0.0%	0.0%
04.00	1075	267	0	0	0.0%	0.0%	566	151	0	0	0.0%	0.0%	338	62	0	0	0.0%	0.0%
05.00	2830	449	0	0	0.0%	0.0%	1199	213	0	0	0.0%	0.0%	687	98	0	0	0.0%	0.0%
06.00	4315	527	116	0	2.7%	0.0%	1851	269	112	0	6.1%	0.0%	1077	126	112	0	10.4%	0.0%
07.00	5711	553	5	5	0.1%	0.8%	2530	316	5	5	0.2%	1.5%	1415	145	5	5	0.3%	3.2%
08.00	5282	606	5	5	0.1%	0.8%	3244	322	5	5	0.1%	1.4%	1889	148	5	5	0.2%	3.1%
09.00	4378	631	5	5	0.1%	0.8%	3635	320	5	5	0.1%	1.4%	2788	196	5	5	0.2%	2.4%
10.00	4039	619	5	5	0.1%	0.8%	4155	312	5	5	0.1%	1.5%	3768	225	5	5	0.1%	2.1%
11.00	4032	602	5	5	0.1%	0.8%	4605	293	5	5	0.1%	1.6%	4306	253	5	5	0.1%	1.8%
12.00	4382	642	5	5	0.1%	0.8%	4829	271	5	5	0.1%	1.7%	4639	227	5	5	0.1%	2.0%
13.00	4547	664	5	5	0.1%	0.7%	4749	267	5	5	0.1%	1.7%	4407	238	5	5	0.1%	1.9%
14.00	4838	663	5	5	0.1%	0.7%	4374	261	5	5	0.1%	1.8%	4015	236	5	5	0.1%	2.0%
15.00	5344	645	5	5	0.1%	0.8%	4200	244	5	5	0.1%	1.9%	3835	226	5	5	0.1%	2.0%
16.00	6285	523	5	5	0.1%	1.0%	4422	224	112	0	2.5%	0.0%	4286	211	112	0	2.6%	0.0%
17.00	6683	429	5	5	0.1%	1.2%	4156	192	0	0	0.0%	0.0%	3860	198	0	0	0.0%	0.0%
18.00	4992	355	5	5	0.1%	1.3%	3665	172	0	0	0.0%	0.0%	3400	157	0	0	0.0%	0.0%
19.00	3293	272	116	0	3.5%	0.0%	2806	140	0	0	0.0%	0.0%	2808	141	0	0	0.0%	0.0%
20.00	2271	187	0	0	0.0%	0.0%	2029	102	0	0	0.0%	0.0%	2121	103	0	0	0.0%	0.0%
21.00	1668	132	0	0	0.0%	0.0%	1577	83	0	0	0.0%	0.0%	1505	88	0	0	0.0%	0.0%
22.00	1339	112	0	0	0.0%	0.0%	1568	63	0	0	0.0%	0.0%	970	62	0	0	0.0%	0.0%
23.00	800	108	0	0	0.0%	0.0%	1213	69	0	0	0.0%	0.0%	556	79	0	0	0.0%	0.0%
12 hr	60515	6931	59	59	0.1%	0.9%	48566	3196	154	42	0.3%	1.3%	42608	2461	154	42	0.4%	1.7%
24 hr	79669	9476	290	59	0.4%	0.6%	63375	4733	267	42	0.4%	0.9%	54742	3475	267	42	0.5%	1.2%



Link 7 - M2 East

2021 Baseline + WKN Construction + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Construction + Cumulative		% Impact		2021 Baseline		Construction + Cumulative		% Impact		2021 Baseline		Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.0%	0.0%	650	110	0	0	0.0%	0.0%	795	61	0	0	0.0%	0.0%
01.00	297	92	0	0	0.0%	0.0%	430	94	0	0	0.0%	0.0%	487	58	0	0	0.0%	0.0%
02.00	311	105	0	0	0.0%	0.0%	363	88	0	0	0.0%	0.0%	323	44	0	0	0.0%	0.0%
03.00	426	144	0	0	0.0%	0.0%	382	108	0	0	0.0%	0.0%	287	63	0	0	0.0%	0.0%
04.00	984	242	0	0	0.0%	0.0%	517	136	0	0	0.0%	0.0%	308	54	0	0	0.0%	0.0%
05.00	2575	395	0	0	0.0%	0.0%	1082	178	0	0	0.0%	0.0%	611	72	0	0	0.0%	0.0%
06.00	3905	453	57	0	1.5%	0.0%	1647	217	56	0	3.4%	0.0%	936	86	56	0	5.9%	0.0%
07.00	5181	472	1	1	0.0%	0.1%	2282	256	1	1	0.0%	0.2%	1256	98	1	1	0.0%	0.5%
08.00	4760	521	1	1	0.0%	0.1%	2933	263	1	1	0.0%	0.2%	1688	104	1	1	0.0%	0.5%
09.00	3956	540	1	1	0.0%	0.1%	3286	256	1	1	0.0%	0.2%	2511	143	1	1	0.0%	0.4%
10.00	3642	526	1	1	0.0%	0.1%	3759	246	1	1	0.0%	0.2%	3399	166	1	1	0.0%	0.3%
11.00	3638	512	1	1	0.0%	0.2%	4173	229	1	1	0.0%	0.2%	3893	193	1	1	0.0%	0.3%
12.00	3964	558	1	1	0.0%	0.1%	4386	219	1	1	0.0%	0.2%	4209	180	1	1	0.0%	0.3%
13.00	4106	569	1	1	0.0%	0.1%	4299	207	1	1	0.0%	0.2%	3983	180	1	1	0.0%	0.3%
14.00	4376	573	1	1	0.0%	0.1%	3961	206	1	1	0.0%	0.2%	3636	183	1	1	0.0%	0.3%
15.00	4837	552	1	1	0.0%	0.1%	3797	186	1	1	0.0%	0.3%	3464	169	1	1	0.0%	0.3%
16.00	5704	446	1	1	0.0%	0.2%	3994	177	56	0	1.4%	0.0%	3872	165	56	0	1.4%	0.0%
17.00	6058	361	1	1	0.0%	0.2%	3768	150	0	0	0.0%	0.0%	3501	155	0	0	0.0%	0.0%
18.00	4542	305	1	1	0.0%	0.2%	3333	142	0	0	0.0%	0.0%	3093	128	0	0	0.0%	0.0%
19.00	2976	228	57	0	1.9%	0.0%	2552	107	0	0	0.0%	0.0%	2553	108	0	0	0.0%	0.0%
20.00	2064	154	0	0	0.0%	0.0%	1844	76	0	0	0.0%	0.0%	1928	76	0	0	0.0%	0.0%
21.00	1516	108	0	0	0.0%	0.0%	1433	63	0	0	0.0%	0.0%	1367	68	0	0	0.0%	0.0%
22.00	1223	100	0	0	0.0%	0.0%	1436	55	0	0	0.0%	0.0%	887	54	0	0	0.0%	0.0%
23.00	731	96	0	0	0.0%	0.0%	1111	60	0	0	0.0%	0.0%	508	70	0	0	0.0%	0.0%
12 hr	54766	5936	9	9	0.0%	0.1%	43971	2538	60	5	0.1%	0.2%	38503	1863	60	5	0.2%	0.2%
24 hr	72162	8151	123	9	0.2%	0.1%	57418	3831	116	5	0.2%	0.1%	49494	2676	116	5	0.2%	0.2%

**Link 8 - Swale Way north of Reams Way Junction**

**2021 Baseline + WKN Construction + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Construction + Cumulative		% Impact		2021 Baseline		Construction + Cumulative		% Impact		2021 Baseline		Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	814	51	12	0	1.5%	0.0%	410	19	0	0	0.0%	0.0%	299	12	0	0	0.0%	0.0%
07.00	1414	85	0	0	0.0%	0.0%	349	22	0	0	0.0%	0.0%	154	12	0	0	0.0%	0.0%
08.00	1499	83	1	1	0.1%	1.2%	450	30	0	0	0.0%	0.0%	153	14	0	0	0.0%	0.0%
09.00	950	99	1	1	0.1%	1.0%	571	31	0	0	0.0%	0.0%	322	13	0	0	0.0%	0.0%
10.00	839	106	1	1	0.1%	0.9%	704	34	0	0	0.0%	0.0%	437	18	0	0	0.0%	0.0%
11.00	830	100	1	1	0.1%	1.0%	770	23	0	0	0.0%	0.0%	529	24	0	0	0.0%	0.0%
12.00	932	102	1	1	0.1%	1.0%	732	25	0	0	0.0%	0.0%	556	19	0	0	0.0%	0.0%
13.00	900	93	1	1	0.1%	1.1%	692	33	0	0	0.0%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	1	1	0.1%	1.0%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1188	86	1	1	0.1%	1.2%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	1	1	0.1%	1.3%	723	20	0	0	0.0%	0.0%	709	17	0	0	0.0%	0.0%
17.00	1299	61	1	1	0.1%	1.6%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	0	0	0.0%	0.0%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	653	37	12	0	1.8%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	259	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.0%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13175	1052	10	10	0.1%	1.0%	7301	304	0	0	0.0%	0.0%	5413	184	0	0	0.0%	0.0%
24 hr	16456	1362	34	10	0.2%	0.7%	9273	431	0	0	0.0%	0.0%	6957	280	0	0	0.0%	0.0%

**Link 9 - Swale Way south of Reams Way Junction**

**2021 Baseline + WKN Construction + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Construction + Cumulative		% Impact		2021 Baseline		Construction + Cumulative		% Impact		2021 Baseline		Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	826	57	12	0	1.5%	0.0%	443	20	0	0	0.0%	0.0%	303	13	0	0	0.0%	0.0%
07.00	1416	85	0	0	0.0%	0.0%	347	27	0	0	0.0%	0.0%	188	12	0	0	0.0%	0.0%
08.00	1432	94	1	1	0.1%	1.1%	484	26	0	0	0.0%	0.0%	155	7	0	0	0.0%	0.0%
09.00	917	105	1	1	0.1%	1.0%	575	35	0	0	0.0%	0.0%	324	15	0	0	0.0%	0.0%
10.00	828	107	1	1	0.1%	0.9%	716	25	0	0	0.0%	0.0%	474	15	0	0	0.0%	0.0%
11.00	850	108	1	1	0.1%	0.9%	775	35	0	0	0.0%	0.0%	506	17	0	0	0.0%	0.0%
12.00	917	98	1	1	0.1%	1.0%	749	34	0	0	0.0%	0.0%	522	15	0	0	0.0%	0.0%
13.00	950	92	1	1	0.1%	1.1%	622	32	0	0	0.0%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	1	1	0.1%	1.0%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	1	1	0.1%	1.1%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1433	82	1	1	0.1%	1.2%	717	19	0	0	0.0%	0.0%	610	14	0	0	0.0%	0.0%
17.00	1370	64	1	1	0.1%	1.6%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	0	0	0.0%	0.0%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	647	34	12	0	1.9%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.0%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13210	1093	10	10	0.1%	0.9%	7146	316	0	0	0.0%	0.0%	5030	194	0	0	0.0%	0.0%
24 hr	16474	1403	34	10	0.2%	0.7%	9189	425	0	0	0.0%	0.0%	6512	278	0	0	0.0%	0.0%

**Link 10 - Swale Way south of Ridham Avenue Roundabout**

**2021 Baseline + WKN Construction + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Construction + Cumulative		% Impact		2021 Baseline		Construction + Cumulative		% Impact		2021 Baseline		Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	566	37	12	0	2.1%	0.0%	198	12	0	0	0.0%	0.0%	100	5	0	0	0.0%	0.0%
07.00	1313	67	0	0	0.0%	0.0%	319	16	0	0	0.0%	0.0%	138	5	0	0	0.0%	0.0%
08.00	1401	71	1	1	0.1%	1.4%	421	17	0	0	0.0%	0.0%	139	4	0	0	0.0%	0.0%
09.00	869	83	1	1	0.1%	1.2%	542	18	0	0	0.0%	0.0%	312	4	0	0	0.0%	0.0%
10.00	741	88	1	1	0.1%	1.1%	681	16	0	0	0.0%	0.0%	404	8	0	0	0.0%	0.0%
11.00	740	75	1	1	0.1%	1.3%	764	11	0	0	0.0%	0.0%	518	9	0	0	0.0%	0.0%
12.00	823	81	1	1	0.1%	1.2%	717	15	0	0	0.0%	0.0%	540	11	0	0	0.0%	0.0%
13.00	833	74	1	1	0.1%	1.4%	658	16	0	0	0.0%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	77	1	1	0.1%	1.3%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	1	1	0.1%	1.3%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	1	1	0.1%	1.5%	533	13	0	0	0.0%	0.0%	522	11	0	0	0.0%	0.0%
17.00	1242	56	1	1	0.1%	1.8%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	50	0	0	0.0%	0.0%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	432	20	12	0	2.8%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.0%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12154	863	10	10	0.1%	1.2%	6807	170	0	0	0.0%	0.0%	5024	84	0	0	0.0%	0.0%
24 hr	14593	1055	34	10	0.2%	0.9%	8380	245	0	0	0.0%	0.0%	6219	120	0	0	0.0%	0.0%

Link 11 - A249 North of Swale Way Junction																		
2021 Baseline + WKN Construction + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact																		
Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Construction + Cumulative		% Impact		2021 Baseline		Construction + Cumulative		% Impact		2021 Baseline		Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.0%	0.0%	436	30	0	0	0.0%	0.0%
07.00	3012	191	0	0	0.0%	0.0%	1139	82	0	0	0.0%	0.0%	581	26	0	0	0.0%	0.0%
08.00	2710	235	0	0	0.0%	0.1%	1543	83	0	0	0.0%	0.0%	872	31	0	0	0.0%	0.0%
09.00	2053	238	0	0	0.0%	0.1%	1887	76	0	0	0.0%	0.0%	1368	48	0	0	0.0%	0.0%
10.00	1965	234	0	0	0.0%	0.1%	2223	85	0	0	0.0%	0.0%	2020	41	0	0	0.0%	0.0%
11.00	2067	230	0	0	0.0%	0.1%	2492	71	0	0	0.0%	0.0%	2331	38	0	0	0.0%	0.0%
12.00	2199	227	0	0	0.0%	0.1%	2640	63	0	0	0.0%	0.0%	2543	44	0	0	0.0%	0.0%
13.00	2235	222	0	0	0.0%	0.1%	2540	61	0	0	0.0%	0.0%	2417	47	0	0	0.0%	0.0%
14.00	2350	239	0	0	0.0%	0.1%	2406	57	0	0	0.0%	0.0%	2134	42	0	0	0.0%	0.0%
15.00	2574	205	0	0	0.0%	0.1%	2333	45	0	0	0.0%	0.0%	2049	45	0	0	0.0%	0.0%
16.00	3164	170	0	0	0.0%	0.1%	2290	49	0	0	0.0%	0.0%	2114	41	0	0	0.0%	0.0%
17.00	3303	126	0	0	0.0%	0.1%	2189	36	0	0	0.0%	0.0%	1964	39	0	0	0.0%	0.0%
18.00	2284	83	0	0	0.0%	0.0%	1847	36	0	0	0.0%	0.0%	1763	43	0	0	0.0%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	0	0	0.0%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	0	0	0.0%	0.0%	822	25	0	0	0.0%	0.0%	704	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.0%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.0%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29916	2398	1	1	0.0%	0.1%	25528	742	0	0	0.0%	0.0%	22156	485	0	0	0.0%	0.0%
24 hr	37860	3121	2	1	0.0%	0.0%	32342	1117	0	0	0.0%	0.0%	27697	709	0	0	0.0%	0.0%

**Link 1 - Swale Way East of B2005 Groveshurst Roundabout**

**2021 Baseline + K3 Operational + WKN Construction + 2021 Cumulative (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	160	51	5	5	3.1%	9.7%	179	45	5	5	2.8%	10.9%	184	15	5	5	2.7%	32.9%
01.00	148	46	5	5	3.3%	10.8%	158	56	5	5	3.1%	8.9%	157	14	5	5	3.2%	35.3%
02.00	164	42	5	5	3.0%	11.8%	128	45	5	5	3.9%	10.9%	97	13	5	5	5.1%	38.1%
03.00	242	66	5	5	2.1%	7.5%	165	46	5	5	3.0%	10.7%	82	15	5	5	6.0%	32.9%
04.00	366	80	5	5	1.4%	6.2%	204	61	5	5	2.4%	8.2%	100	16	5	5	5.0%	30.9%
05.00	945	135	5	5	0.5%	3.7%	530	93	5	5	0.9%	5.3%	289	47	5	5	1.7%	10.6%
06.00	1285	189	428	5	33.3%	2.6%	687	134	416	5	60.6%	3.7%	416	75	416	5	99.9%	6.6%
07.00	1892	223	42	38	2.2%	16.9%	684	135	42	38	6.2%	27.9%	278	68	33	29	12.0%	43.0%
08.00	2200	213	50	39	2.3%	18.2%	712	117	50	38	7.0%	32.5%	293	64	41	29	14.0%	45.4%
09.00	1333	236	38	38	2.8%	16.0%	785	140	37	37	4.7%	26.4%	314	72	28	28	9.0%	39.1%
10.00	1214	258	38	38	3.1%	14.7%	893	140	37	37	4.1%	26.3%	333	81	28	28	8.5%	34.9%
11.00	1240	244	38	38	3.0%	15.5%	922	136	37	37	4.0%	27.2%	554	78	28	28	5.1%	36.0%
12.00	1359	229	38	38	2.8%	16.5%	944	112	37	37	3.9%	32.8%	854	62	28	28	3.3%	45.5%
13.00	1471	251	42	38	2.8%	14.9%	909	114	32	28	3.5%	24.5%	516	75	32	28	6.2%	37.2%
14.00	1452	243	42	38	2.9%	15.5%	888	111	32	28	3.6%	25.2%	529	70	32	28	6.1%	39.9%
15.00	1577	240	38	38	2.4%	15.8%	904	117	28	28	3.1%	24.1%	535	72	28	28	5.3%	39.2%
16.00	1706	196	38	38	2.2%	19.3%	974	96	428	21	43.9%	22.1%	816	53	428	21	52.4%	40.0%
17.00	1807	162	50	39	2.8%	23.8%	810	81	33	21	4.0%	25.8%	666	50	33	21	4.9%	41.8%
18.00	1209	136	25	25	2.0%	18.3%	690	72	8	8	1.2%	11.6%	451	41	8	8	1.8%	20.3%
19.00	898	97	426	8	47.5%	7.9%	550	68	8	8	1.4%	11.2%	516	51	8	8	1.5%	14.9%
20.00	544	93	8	8	1.4%	8.2%	401	69	8	8	1.9%	11.1%	364	44	8	8	2.1%	17.4%
21.00	384	68	13	9	3.3%	12.7%	313	49	13	9	4.1%	17.5%	221	33	13	9	5.8%	25.8%
22.00	300	49	13	9	4.3%	17.5%	276	25	13	9	4.6%	34.2%	305	10	13	9	4.2%	86.2%
23.00	198	46	5	5	2.5%	10.8%	204	29	5	5	2.4%	17.0%	197	10	5	5	2.5%	49.6%
12 hr	18461	2630	476	442	2.6%	16.8%	10115	1371	801	358	7.9%	26.1%	6138	787	749	306	12.2%	38.9%
24 hr	24096	3593	1398	514	5.8%	14.3%	13910	2092	1292	430	9.3%	20.5%	9065	1130	1240	378	13.7%	33.5%

Link 2 - Barge Way North of Swale Roundabout																		
2021 Baseline + K3 Operational + WKN Construction + 2021 Cumulative (K3 (0-75MW)) Percentage Impact																		
Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	128	35	5	5	3.9%	14.1%	133	31	5	5	3.7%	15.9%	100	26	5	5	5.0%	18.9%
01.00	131	32	5	5	3.8%	15.6%	107	26	5	5	4.6%	18.9%	87	25	5	5	5.7%	19.7%
02.00	169	33	5	5	2.9%	15.0%	130	35	5	5	3.8%	14.1%	88	22	5	5	5.6%	22.4%
03.00	223	51	5	5	2.2%	9.6%	166	43	5	5	3.0%	11.4%	81	25	5	5	6.1%	19.7%
04.00	308	63	5	5	1.6%	7.9%	211	57	5	5	2.3%	8.8%	104	28	5	5	4.8%	17.6%
05.00	545	99	5	5	0.9%	5.0%	346	85	5	5	1.4%	5.8%	194	55	5	5	2.6%	9.1%
06.00	530	138	416	5	78.5%	3.6%	308	123	416	5	134.9%	4.0%	168	77	416	5	248.0%	6.4%
07.00	522	154	42	38	8.0%	24.8%	308	119	42	38	13.6%	32.0%	163	84	33	29	20.6%	34.8%
08.00	522	152	50	38	9.5%	25.2%	285	123	50	38	17.4%	31.1%	167	73	41	29	24.6%	39.9%
09.00	441	170	37	37	8.3%	21.9%	283	129	37	37	13.0%	28.9%	162	84	28	28	17.5%	33.6%
10.00	453	176	37	37	8.1%	21.2%	294	118	37	37	12.5%	31.5%	166	89	28	28	17.0%	31.8%
11.00	410	175	37	37	9.0%	21.3%	266	124	37	37	13.8%	30.1%	190	101	28	28	14.9%	27.8%
12.00	424	159	37	37	8.7%	23.5%	245	86	37	37	15.0%	43.2%	226	72	28	28	12.5%	39.3%
13.00	517	183	41	37	7.9%	20.2%	310	101	32	28	10.4%	27.6%	220	91	32	28	14.6%	30.6%
14.00	512	192	41	37	7.9%	19.2%	281	113	32	28	11.5%	24.7%	193	89	32	28	16.7%	31.4%
15.00	514	190	37	37	7.1%	19.6%	299	122	28	28	9.4%	23.1%	188	92	28	28	15.0%	30.7%
16.00	530	155	37	37	6.9%	24.0%	245	76	428	21	174.7%	27.9%	221	82	428	21	193.9%	25.8%
17.00	504	120	49	38	9.8%	31.6%	201	69	33	21	16.3%	30.3%	181	60	33	21	18.1%	34.9%
18.00	376	101	25	25	6.6%	24.9%	187	53	8	8	4.4%	15.7%	143	47	8	8	5.8%	17.8%
19.00	248	85	414	8	166.9%	9.0%	134	69	8	8	5.7%	11.0%	130	54	8	8	5.8%	14.1%
20.00	183	64	8	8	4.2%	11.8%	106	57	8	8	7.2%	13.4%	100	50	8	8	7.7%	15.3%
21.00	144	47	13	9	8.9%	18.4%	89	40	13	9	14.5%	21.4%	74	34	13	9	17.5%	25.2%
22.00	109	32	13	9	11.8%	26.9%	67	23	13	9	19.3%	37.2%	73	15	13	9	17.7%	57.2%
23.00	143	41	5	5	3.5%	12.1%	77	24	5	5	6.5%	20.5%	74	20	5	5	6.7%	24.7%
12 hr	5725	1925	467	437	8.2%	22.7%	3203	1234	800	360	25.0%	29.2%	2219	965	749	306	33.8%	31.7%
24 hr	8586	2646	1365	509	15.9%	19.2%	5078	1848	1291	432	25.4%	23.4%	3490	1397	1241	378	35.5%	27.1%

Link 3 - Barge Way East of Fleet End Roundabout

2021 Baseline + K3 Operational + WKN Construction + 2021 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	18	5	5	12.5%	27.1%	90	14	5	5	5.5%	35.3%	14	10	5	5	35.3%	49.6%
01.00	38	17	5	5	12.9%	29.4%	34	17	5	5	14.5%	29.0%	11	10	5	5	45.1%	49.6%
02.00	57	20	5	5	8.7%	25.4%	35	25	5	5	14.1%	19.7%	13	10	5	5	38.1%	49.6%
03.00	71	21	5	5	7.0%	23.3%	19	12	5	5	26.0%	41.3%	11	10	5	5	45.1%	49.6%
04.00	111	27	5	5	4.5%	18.2%	38	20	5	5	12.9%	24.7%	20	10	5	5	24.7%	49.6%
05.00	226	36	5	5	2.2%	13.9%	97	17	5	5	5.1%	29.0%	55	11	5	5	9.0%	45.1%
06.00	275	54	416	5	151.4%	9.1%	109	39	416	5	380.3%	12.6%	55	13	416	5	760.3%	38.1%
07.00	308	72	42	38	13.8%	52.9%	132	42	42	38	32.1%	90.3%	71	20	33	29	46.9%	146.0%
08.00	299	80	50	38	16.7%	47.6%	132	46	50	38	37.9%	82.4%	87	17	41	29	47.4%	172.0%
09.00	231	83	37	37	16.1%	44.8%	125	46	37	37	29.8%	80.3%	65	17	28	28	43.4%	166.2%
10.00	220	85	37	37	16.9%	43.6%	113	41	37	37	32.9%	90.1%	66	17	28	28	43.0%	166.2%
11.00	195	82	37	37	19.1%	45.3%	98	27	37	37	37.8%	137.2%	59	19	28	28	47.9%	148.5%
12.00	228	83	37	37	16.3%	44.7%	91	22	37	37	41.0%	168.7%	66	18	28	28	42.6%	156.8%
13.00	262	84	41	37	15.7%	44.1%	117	20	32	28	27.5%	139.3%	98	16	32	28	33.0%	174.5%
14.00	240	94	41	37	17.1%	39.4%	94	19	32	28	34.1%	146.7%	77	16	32	28	41.7%	174.5%
15.00	217	91	37	37	17.1%	41.0%	86	23	28	28	33.0%	122.4%	67	17	28	28	41.9%	166.0%
16.00	249	69	37	37	14.9%	53.6%	87	14	428	21	493.6%	151.3%	81	13	428	21	530.8%	163.0%
17.00	278	50	50	38	17.9%	75.5%	86	11	33	21	38.2%	190.0%	95	10	33	21	34.5%	209.2%
18.00	154	37	25	25	16.4%	68.2%	62	12	8	8	13.4%	68.9%	59	11	8	8	14.1%	75.3%
19.00	88	28	414	8	468.7%	26.8%	47	10	8	8	16.3%	76.2%	50	10	8	8	15.3%	76.2%
20.00	77	27	8	8	9.8%	28.6%	29	12	8	8	25.9%	63.4%	28	10	8	8	26.8%	76.2%
21.00	67	19	13	9	19.1%	44.6%	27	10	13	9	47.3%	86.2%	26	12	13	9	49.1%	71.7%
22.00	41	21	13	9	31.5%	41.2%	12	10	13	9	106.9%	86.2%	19	11	13	9	67.3%	78.3%
23.00	40	17	5	5	12.4%	29.0%	11	10	5	5	45.1%	49.6%	17	11	5	5	29.0%	45.1%
12 hr	2881	911	473	437	16.4%	47.9%	1223	325	803	360	65.7%	110.8%	891	191	749	306	84.1%	160.1%
24 hr	4012	1216	1371	509	34.2%	41.8%	1772	522	1294	432	73.0%	82.8%	1210	319	1241	378	102.5%	118.5%



Link 4 - A249 South of Swale Way Junction

2021 Baseline + K3 Operational + WKN Construction + 2021 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	235	62	5	5	2.1%	8.0%	393	63	5	5	1.3%	7.9%	453	40	5	5	1.1%	12.3%
01.00	169	53	5	5	2.9%	9.3%	262	58	5	5	1.9%	8.6%	291	33	5	5	1.7%	14.9%
02.00	167	60	5	5	3.0%	8.3%	222	68	5	5	2.2%	7.3%	204	37	5	5	2.4%	13.6%
03.00	237	78	5	5	2.1%	6.4%	223	68	5	5	2.2%	7.3%	171	39	5	5	2.9%	12.8%
04.00	548	139	5	5	0.9%	3.6%	305	76	5	5	1.6%	6.5%	196	40	5	5	2.5%	12.5%
05.00	1339	239	5	5	0.4%	2.1%	695	140	5	5	0.7%	3.5%	409	75	5	5	1.2%	6.6%
06.00	2374	303	410	5	17.3%	1.6%	1203	181	399	5	33.1%	2.7%	787	109	399	5	50.7%	4.5%
07.00	3131	346	42	37	1.3%	10.8%	1422	200	42	37	2.9%	18.8%	808	113	33	29	4.1%	25.8%
08.00	2881	350	50	38	1.7%	10.9%	1810	211	49	37	2.7%	17.7%	1114	113	41	29	3.6%	25.9%
09.00	2199	364	37	37	1.7%	10.3%	2055	230	36	36	1.8%	15.9%	1635	154	28	28	1.7%	18.4%
10.00	2108	385	37	37	1.8%	9.7%	2350	218	36	36	1.6%	16.7%	2097	171	28	28	1.3%	16.6%
11.00	2143	376	37	37	1.7%	9.9%	2493	213	36	36	1.5%	17.1%	2319	169	28	28	1.2%	16.7%
12.00	2303	369	37	37	1.6%	10.1%	2685	190	36	36	1.4%	19.2%	2179	142	28	28	1.3%	19.9%
13.00	2335	386	41	37	1.8%	9.6%	2625	195	32	28	1.2%	14.3%	2139	150	32	28	1.5%	18.6%
14.00	2577	387	41	37	1.6%	9.6%	2406	180	32	28	1.3%	15.5%	2157	151	32	28	1.5%	18.5%
15.00	2866	382	37	37	1.3%	9.8%	2360	184	28	28	1.2%	15.4%	2130	162	28	28	1.3%	17.4%
16.00	3391	318	37	37	1.1%	11.8%	2458	151	411	21	16.7%	14.0%	2396	150	411	21	17.1%	14.2%
17.00	3665	279	49	38	1.3%	13.6%	2331	142	32	21	1.4%	14.8%	1944	136	32	21	1.7%	15.4%
18.00	2769	250	25	25	0.9%	9.8%	2033	129	8	8	0.4%	6.4%	1858	124	8	8	0.4%	6.7%
19.00	2008	184	409	8	20.4%	4.1%	1596	118	8	8	0.5%	6.5%	1543	111	8	8	0.5%	6.9%
20.00	1272	137	8	8	0.6%	5.6%	1159	86	8	8	0.7%	8.8%	1274	95	8	8	0.6%	8.1%
21.00	947	104	13	9	1.3%	8.3%	964	66	13	9	1.3%	13.1%	926	78	13	9	1.4%	11.0%
22.00	726	69	13	9	1.7%	12.5%	852	44	13	9	1.5%	19.6%	545	40	13	9	2.3%	21.6%
23.00	435	58	5	5	1.1%	8.5%	659	45	5	5	0.8%	11.1%	331	42	5	5	1.5%	11.9%
12 hr	32369	4192	471	436	1.5%	10.4%	27028	2243	780	355	2.9%	15.9%	22776	1734	730	306	3.2%	17.6%
24 hr	42824	5677	1358	509	3.2%	9.0%	35563	3254	1254	428	3.5%	13.1%	29905	2473	1204	378	4.0%	15.3%

Link 5 - A249 between the A2 and M2

2021 Baseline + K3 Operational + WKN Construction + 2021 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	333	86	5	5	1.5%	5.8%	559	88	5	5	0.9%	5.7%	644	55	5	5	0.8%	9.0%
01.00	238	74	5	5	2.1%	6.7%	372	80	5	5	1.3%	6.2%	414	45	5	5	1.2%	11.0%
02.00	236	82	5	5	2.1%	6.0%	315	94	5	5	1.6%	5.3%	290	50	5	5	1.7%	10.0%
03.00	334	108	5	5	1.5%	4.6%	317	95	5	5	1.6%	5.2%	242	53	5	5	2.1%	9.3%
04.00	777	194	5	5	0.6%	2.6%	433	106	5	5	1.1%	4.7%	277	54	5	5	1.8%	9.2%
05.00	1873	323	5	5	0.3%	1.5%	971	185	5	5	0.5%	2.7%	562	92	5	5	0.9%	5.4%
06.00	3260	401	392	5	12.0%	1.2%	1605	232	381	5	23.7%	2.1%	1009	129	381	5	37.8%	3.9%
07.00	4376	445	42	38	0.9%	8.5%	1975	250	42	38	2.1%	15.1%	1116	135	33	29	2.9%	21.2%
08.00	3954	450	49	38	1.2%	8.5%	2530	268	49	38	1.9%	14.1%	1550	137	40	29	2.6%	21.0%
09.00	3053	466	37	37	1.2%	8.0%	2904	290	37	37	1.3%	12.7%	2308	191	28	28	1.2%	14.5%
10.00	2918	494	37	37	1.3%	7.6%	3325	271	37	37	1.1%	13.5%	2994	212	28	28	0.9%	13.1%
11.00	2971	482	37	37	1.3%	7.8%	3543	265	37	37	1.0%	13.9%	3325	212	28	28	0.8%	13.1%
12.00	3200	481	37	37	1.2%	7.8%	3834	240	37	37	1.0%	15.3%	3131	181	28	28	0.9%	15.3%
13.00	3240	499	42	38	1.3%	7.7%	3726	240	32	28	0.9%	11.8%	3050	186	32	28	1.1%	15.3%
14.00	3580	504	42	38	1.2%	7.6%	3429	224	32	28	0.9%	12.7%	3067	191	32	28	1.1%	14.9%
15.00	4011	493	38	38	1.0%	7.8%	3356	224	29	29	0.9%	12.8%	3034	204	29	29	0.9%	14.1%
16.00	4754	408	38	38	0.8%	9.4%	3416	186	394	21	11.5%	11.4%	3332	193	394	21	11.8%	11.0%
17.00	5120	352	49	38	1.0%	10.8%	3322	173	32	21	1.0%	12.1%	2762	175	32	21	1.1%	12.0%
18.00	3905	317	25	25	0.6%	7.8%	2904	159	8	8	0.3%	5.2%	2653	161	8	8	0.3%	5.2%
19.00	2746	239	391	8	14.2%	3.2%	2248	148	8	8	0.3%	5.1%	2172	138	8	8	0.4%	5.5%
20.00	1785	175	8	8	0.4%	4.3%	1634	107	8	8	0.5%	7.1%	1798	118	8	8	0.4%	6.4%
21.00	1328	133	12	9	0.9%	6.5%	1361	82	12	9	0.9%	10.4%	1306	100	12	9	1.0%	8.6%
22.00	1021	95	12	9	1.2%	9.1%	1216	60	12	9	1.0%	14.3%	777	55	12	9	1.6%	15.8%
23.00	616	81	5	5	0.8%	6.2%	940	61	5	5	0.5%	8.1%	470	57	5	5	1.1%	8.7%
12 hr	45082	5391	476	442	1.1%	8.2%	38262	2791	764	358	2.0%	12.8%	32322	2178	710	305	2.2%	14.0%
24 hr	59629	7383	1326	515	2.2%	7.0%	50235	4130	1220	430	2.4%	10.4%	42284	3123	1166	377	2.8%	12.1%

Link 6 - M2 West

2021 Baseline + K3 Operational + WKN Construction + 2021 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	425	108	3	3	0.7%	2.8%	708	120	3	3	0.4%	2.6%	866	66	3	3	0.4%	4.6%
01.00	323	100	3	3	0.9%	3.1%	469	103	3	3	0.7%	3.0%	530	63	3	3	0.6%	4.9%
02.00	338	114	3	3	0.9%	2.7%	395	96	3	3	0.8%	3.2%	351	48	3	3	0.9%	6.4%
03.00	464	157	3	3	0.7%	1.9%	416	117	3	3	0.7%	2.6%	312	68	3	3	1.0%	4.5%
04.00	1072	263	3	3	0.3%	1.2%	563	148	3	3	0.5%	2.1%	335	59	3	3	0.9%	5.2%
05.00	2827	446	3	3	0.1%	0.7%	1196	210	3	3	0.3%	1.5%	684	95	3	3	0.4%	3.2%
06.00	4311	524	120	3	2.8%	0.6%	1847	266	117	3	6.3%	1.2%	1073	123	117	3	10.9%	2.5%
07.00	5698	541	20	19	0.4%	3.6%	2517	304	20	19	0.8%	6.3%	1403	134	19	18	1.3%	13.3%
08.00	5266	594	23	20	0.4%	3.3%	3228	310	22	19	0.7%	6.2%	1875	138	21	18	1.1%	12.9%
09.00	4366	619	19	19	0.4%	3.1%	3623	308	19	19	0.5%	6.0%	2777	186	17	17	0.6%	9.2%
10.00	4027	606	19	19	0.5%	3.1%	4143	300	19	19	0.4%	6.2%	3757	214	17	17	0.5%	8.0%
11.00	4020	590	19	19	0.5%	3.2%	4593	281	19	19	0.4%	6.6%	4295	242	17	17	0.4%	7.1%
12.00	4370	630	19	19	0.4%	3.0%	4817	258	19	19	0.4%	7.2%	4629	216	17	17	0.4%	7.9%
13.00	4534	652	21	19	0.5%	3.0%	4737	256	19	18	0.4%	6.8%	4395	227	19	18	0.4%	7.7%
14.00	4825	651	21	19	0.4%	3.0%	4362	250	19	18	0.4%	7.0%	4003	225	19	18	0.5%	7.8%
15.00	5332	633	20	20	0.4%	3.1%	4189	234	18	18	0.4%	7.6%	3825	215	18	18	0.5%	8.2%
16.00	6273	511	20	20	0.3%	3.8%	4411	213	126	13	2.8%	6.1%	4276	200	126	13	2.9%	6.5%
17.00	6668	417	23	19	0.3%	4.6%	4142	182	16	13	0.4%	7.1%	3845	188	16	13	0.4%	6.9%
18.00	4988	351	11	11	0.2%	3.2%	3662	169	5	5	0.1%	3.0%	3397	154	5	5	0.2%	3.3%
19.00	3290	269	120	5	3.7%	1.7%	2803	137	5	5	0.2%	3.4%	2805	138	5	5	0.2%	3.4%
20.00	2268	184	5	5	0.2%	2.6%	2026	99	5	5	0.2%	4.8%	2118	100	5	5	0.2%	4.7%
21.00	1664	129	6	5	0.4%	4.1%	1572	80	6	5	0.4%	6.7%	1500	85	6	5	0.4%	6.3%
22.00	1335	109	6	5	0.5%	4.9%	1564	60	6	5	0.4%	8.8%	965	59	6	5	0.7%	9.1%
23.00	796	105	3	3	0.4%	2.9%	1210	66	3	3	0.3%	4.7%	553	76	3	3	0.6%	4.0%
12 hr	60367	6794	233	223	0.4%	3.3%	48427	3066	319	197	0.7%	6.4%	42475	2338	310	188	0.7%	8.0%
24 hr	79481	9302	513	268	0.6%	2.9%	63195	4567	480	241	0.8%	5.3%	54569	3316	471	232	0.9%	7.0%

Link 7 - M2 East

2021 Baseline + K3 Operational + WKN Construction + 2021 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.1%	0.3%	649	110	0	0	0.1%	0.3%	795	60	0	0	0.0%	0.6%
01.00	296	92	0	0	0.1%	0.4%	430	94	0	0	0.1%	0.4%	487	57	0	0	0.1%	0.6%
02.00	310	104	0	0	0.1%	0.3%	363	88	0	0	0.1%	0.4%	322	44	0	0	0.1%	0.8%
03.00	425	144	0	0	0.1%	0.2%	382	107	0	0	0.1%	0.3%	287	62	0	0	0.1%	0.5%
04.00	983	241	0	0	0.0%	0.1%	516	136	0	0	0.1%	0.2%	307	53	0	0	0.1%	0.6%
05.00	2574	394	0	0	0.0%	0.1%	1081	177	0	0	0.0%	0.2%	611	72	0	0	0.1%	0.5%
06.00	3904	453	58	0	1.5%	0.1%	1646	217	57	0	3.4%	0.2%	935	85	57	0	6.0%	0.4%
07.00	5178	470	4	3	0.1%	0.6%	2279	254	4	3	0.2%	1.2%	1254	97	3	2	0.2%	2.0%
08.00	4757	519	5	3	0.1%	0.6%	2929	261	5	3	0.2%	1.2%	1685	102	4	2	0.2%	1.9%
09.00	3954	538	3	3	0.1%	0.6%	3284	254	3	3	0.1%	1.2%	2510	142	2	2	0.1%	1.3%
10.00	3640	524	3	3	0.1%	0.6%	3757	244	3	3	0.1%	1.2%	3398	165	2	2	0.1%	1.1%
11.00	3636	510	3	3	0.1%	0.6%	4171	227	3	3	0.1%	1.3%	3892	192	2	2	0.0%	1.0%
12.00	3962	556	3	3	0.1%	0.6%	4383	217	3	3	0.1%	1.4%	4208	178	2	2	0.0%	1.0%
13.00	4103	567	4	3	0.1%	0.6%	4297	206	2	2	0.1%	0.9%	3981	179	2	2	0.1%	1.1%
14.00	4374	571	4	3	0.1%	0.6%	3959	205	2	2	0.1%	0.9%	3634	182	2	2	0.1%	1.0%
15.00	4835	550	3	3	0.1%	0.6%	3796	185	2	2	0.1%	1.0%	3463	168	2	2	0.1%	1.1%
16.00	5702	444	3	3	0.1%	0.7%	3993	176	57	1	1.4%	0.8%	3870	164	57	1	1.5%	0.9%
17.00	6055	359	5	3	0.1%	0.9%	3765	148	3	1	0.1%	0.9%	3498	154	3	1	0.1%	0.9%
18.00	4541	304	2	2	0.0%	0.7%	3333	142	1	1	0.0%	0.4%	3092	128	1	1	0.0%	0.4%
19.00	2976	228	58	1	1.9%	0.2%	2551	107	1	1	0.0%	0.5%	2553	108	1	1	0.0%	0.5%
20.00	2064	153	1	1	0.0%	0.3%	1844	75	1	1	0.0%	0.7%	1928	76	1	1	0.0%	0.7%
21.00	1515	108	1	1	0.1%	0.5%	1432	63	1	1	0.1%	0.9%	1366	68	1	1	0.1%	0.9%
22.00	1222	100	1	1	0.1%	0.6%	1435	55	1	1	0.1%	1.0%	886	54	1	1	0.1%	1.1%
23.00	730	96	0	0	0.0%	0.3%	1111	60	0	0	0.0%	0.6%	507	69	0	0	0.1%	0.5%
12 hr	54736	5912	43	38	0.1%	0.6%	43947	2519	88	27	0.2%	1.1%	38485	1850	81	20	0.2%	1.1%
24 hr	72126	8123	164	43	0.2%	0.5%	57388	3808	150	32	0.3%	0.8%	49470	2659	143	25	0.3%	0.9%

Link 8 - Swale Way north of Reams Way Junction

2021 Baseline + K3 Operational + WKN Construction + 2021 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	814	51	12	0	1.5%	0.0%	410	19	0	0	0.0%	0.0%	299	12	0	0	0.0%	0.0%
07.00	1413	84	0	0	0.0%	0.4%	348	22	0	0	0.1%	1.4%	154	12	0	0	0.0%	0.0%
08.00	1498	83	1	1	0.1%	1.6%	450	30	0	0	0.1%	1.1%	153	14	0	0	0.0%	0.0%
09.00	949	98	1	1	0.1%	1.3%	570	31	0	0	0.1%	1.0%	322	13	0	0	0.0%	0.0%
10.00	839	106	1	1	0.2%	1.2%	704	34	0	0	0.0%	0.9%	437	18	0	0	0.0%	0.0%
11.00	830	100	1	1	0.2%	1.3%	770	23	0	0	0.0%	1.4%	529	24	0	0	0.0%	0.0%
12.00	931	102	1	1	0.1%	1.3%	732	25	0	0	0.0%	1.3%	556	19	0	0	0.0%	0.0%
13.00	900	93	1	1	0.2%	1.4%	692	33	0	0	0.0%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	1	1	0.1%	1.4%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1187	86	1	1	0.1%	1.5%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	1	1	0.1%	1.7%	723	20	0	0	0.0%	0.0%	709	17	0	0	0.0%	0.0%
17.00	1298	61	1	1	0.1%	2.1%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	0	0	0.0%	0.5%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	653	37	12	0	1.8%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	258	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.1%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13171	1048	14	14	0.1%	1.3%	7299	303	2	2	0.0%	0.6%	5413	184	0	0	0.0%	0.0%
24 hr	16452	1358	38	14	0.2%	1.0%	9270	429	2	2	0.0%	0.4%	6956	280	0	0	0.0%	0.0%

Link 9 - Swale Way south of Reams Way Junction

2021 Baseline + K3 Operational + WKN Construction + 2021 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	826	57	12	0	1.5%	0.0%	443	20	0	0	0.0%	0.0%	303	13	0	0	0.0%	0.0%
07.00	1416	85	0	0	0.0%	0.4%	346	27	0	0	0.1%	1.2%	188	12	0	0	0.0%	0.0%
08.00	1431	93	1	1	0.1%	1.4%	484	26	0	0	0.1%	1.2%	155	7	0	0	0.0%	0.0%
09.00	917	105	1	1	0.1%	1.3%	574	35	0	0	0.1%	0.9%	324	15	0	0	0.0%	0.0%
10.00	828	107	1	1	0.2%	1.2%	716	25	0	0	0.0%	1.3%	474	15	0	0	0.0%	0.0%
11.00	850	108	1	1	0.2%	1.2%	775	35	0	0	0.0%	0.9%	506	17	0	0	0.0%	0.0%
12.00	917	98	1	1	0.1%	1.3%	749	34	0	0	0.0%	0.9%	522	15	0	0	0.0%	0.0%
13.00	949	92	1	1	0.1%	1.4%	622	32	0	0	0.0%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	1	1	0.1%	1.3%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	1	1	0.1%	1.4%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1432	81	1	1	0.1%	1.6%	717	19	0	0	0.0%	0.0%	610	14	0	0	0.0%	0.0%
17.00	1369	64	1	1	0.1%	2.1%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	0	0	0.0%	0.5%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	647	34	12	0	1.9%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.1%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13206	1090	14	14	0.1%	1.3%	7144	315	2	2	0.0%	0.6%	5030	194	0	0	0.0%	0.0%
24 hr	16470	1399	38	14	0.2%	1.0%	9186	423	2	2	0.0%	0.4%	6511	278	0	0	0.0%	0.0%

Link 10 - Swale Way south of Ridham Avenue Roundabout

2021 Baseline + K3 Operational + WKN Construction + 2021 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	566	37	12	0	2.1%	0.0%	198	12	0	0	0.0%	0.0%	100	5	0	0	0.0%	0.0%
07.00	1312	66	0	0	0.0%	0.5%	319	16	0	0	0.1%	2.0%	138	5	0	0	0.0%	0.0%
08.00	1401	70	1	1	0.1%	1.9%	421	17	0	0	0.1%	1.9%	139	4	0	0	0.0%	0.0%
09.00	869	82	1	1	0.2%	1.6%	541	18	0	0	0.1%	1.8%	312	4	0	0	0.0%	0.0%
10.00	741	87	1	1	0.2%	1.5%	681	16	0	0	0.0%	2.0%	404	8	0	0	0.0%	0.0%
11.00	739	75	1	1	0.2%	1.8%	763	11	0	0	0.0%	2.9%	518	9	0	0	0.0%	0.0%
12.00	822	81	1	1	0.2%	1.6%	717	15	0	0	0.0%	2.1%	540	11	0	0	0.0%	0.0%
13.00	833	73	1	1	0.2%	1.8%	658	16	0	0	0.0%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	76	1	1	0.1%	1.7%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	1	1	0.1%	1.7%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	1	1	0.1%	2.0%	533	13	0	0	0.0%	0.0%	522	11	0	0	0.0%	0.0%
17.00	1242	55	1	1	0.1%	2.4%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	49	0	0	0.0%	0.6%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	432	20	12	0	2.8%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.1%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12150	859	14	14	0.1%	1.6%	6805	168	2	2	0.0%	1.1%	5024	84	0	0	0.0%	0.0%
24 hr	14589	1052	38	14	0.3%	1.3%	8378	243	2	2	0.0%	0.8%	6219	120	0	0	0.0%	0.0%

Link 11 - A249 North of Swale Way Junction

2021 Baseline + K3 Operational + WKN Construction + 2021 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	1	0	0.0%	0.0%	770	77	0	0	0.0%	0.0%	436	30	0	0	0.0%	0.0%
07.00	3011	190	0	0	0.0%	0.1%	1138	81	0	0	0.0%	0.3%	581	26	0	0	0.0%	0.0%
08.00	2710	235	1	0	0.0%	0.2%	1542	83	1	0	0.0%	0.3%	871	31	0	0	0.0%	0.0%
09.00	2053	237	0	0	0.0%	0.2%	1887	76	0	0	0.0%	0.3%	1368	48	0	0	0.0%	0.0%
10.00	1965	234	0	0	0.0%	0.2%	2223	85	0	0	0.0%	0.3%	2020	41	0	0	0.0%	0.0%
11.00	2067	230	0	0	0.0%	0.2%	2492	70	0	0	0.0%	0.4%	2331	38	0	0	0.0%	0.0%
12.00	2199	227	0	0	0.0%	0.2%	2640	62	0	0	0.0%	0.4%	2543	44	0	0	0.0%	0.0%
13.00	2234	221	1	0	0.0%	0.2%	2539	61	0	0	0.0%	0.0%	2416	47	0	0	0.0%	0.0%
14.00	2349	239	1	0	0.0%	0.2%	2405	57	0	0	0.0%	0.0%	2133	42	0	0	0.0%	0.0%
15.00	2574	205	0	0	0.0%	0.2%	2333	45	0	0	0.0%	0.0%	2049	45	0	0	0.0%	0.0%
16.00	3163	169	0	0	0.0%	0.2%	2290	49	0	0	0.0%	0.0%	2114	41	0	0	0.0%	0.0%
17.00	3303	126	1	0	0.0%	0.3%	2188	36	0	0	0.0%	0.0%	1964	39	0	0	0.0%	0.0%
18.00	2284	83	0	0	0.0%	0.3%	1847	36	0	0	0.0%	0.0%	1763	43	0	0	0.0%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	0	0	0.0%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	0	0	0.0%	0.0%	822	25	0	0	0.0%	0.0%	703	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.1%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.1%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29912	2396	6	4	0.0%	0.2%	25525	741	3	1	0.0%	0.2%	22154	485	1	0	0.0%	0.0%
24 hr	37856	3118	7	4	0.0%	0.1%	32339	1116	4	1	0.0%	0.1%	27695	709	2	0	0.0%	0.0%



Link 1 - Swale Way East of B2005 Groveshurst Roundabout

2021 Baseline + K3 Operational + WKN Construction + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	165	56	0	0	0.0%	0.0%	184	50	0	0	0.0%	0.0%	189	20	0	0	0.0%	0.0%
01.00	153	51	0	0	0.0%	0.0%	163	60	0	0	0.0%	0.0%	162	19	0	0	0.0%	0.0%
02.00	169	47	0	0	0.0%	0.0%	133	50	0	0	0.0%	0.0%	102	18	0	0	0.0%	0.0%
03.00	247	71	0	0	0.0%	0.0%	170	51	0	0	0.0%	0.0%	87	20	0	0	0.0%	0.0%
04.00	371	85	0	0	0.0%	0.0%	209	66	0	0	0.0%	0.0%	105	21	0	0	0.0%	0.0%
05.00	950	140	0	0	0.0%	0.0%	535	98	0	0	0.0%	0.0%	294	52	0	0	0.0%	0.0%
06.00	1295	194	419	0	32.3%	0.0%	696	139	407	0	58.4%	0.0%	425	80	407	0	95.6%	0.0%
07.00	1921	248	13	13	0.7%	5.3%	713	160	13	13	1.8%	8.2%	300	86	12	12	3.9%	13.6%
08.00	2236	238	14	14	0.6%	5.9%	748	141	13	13	1.7%	9.3%	322	82	12	12	3.6%	14.2%
09.00	1357	261	13	13	1.0%	5.0%	810	164	12	12	1.5%	7.3%	332	90	11	11	3.2%	11.9%
10.00	1239	282	13	13	1.1%	4.6%	918	165	12	12	1.3%	7.3%	351	98	11	11	3.0%	10.8%
11.00	1265	269	13	13	1.0%	4.9%	947	160	12	12	1.3%	7.5%	571	96	11	11	1.9%	11.1%
12.00	1384	254	13	13	0.9%	5.2%	969	137	12	12	1.2%	8.8%	871	80	11	11	1.2%	13.4%
13.00	1500	276	13	13	0.8%	4.6%	930	132	10	10	1.1%	7.8%	538	93	10	10	1.9%	11.1%
14.00	1481	268	13	13	0.9%	4.8%	910	129	10	10	1.1%	8.0%	551	87	10	10	1.9%	11.8%
15.00	1602	264	13	13	0.8%	4.9%	922	135	11	11	1.2%	7.9%	552	90	11	11	1.9%	11.9%
16.00	1731	221	13	13	0.8%	5.9%	992	114	410	4	41.4%	3.2%	834	71	410	4	49.2%	5.2%
17.00	1844	186	14	14	0.7%	7.4%	839	99	3	3	0.4%	3.4%	695	68	3	3	0.5%	4.9%
18.00	1221	148	13	13	1.0%	8.6%	695	77	3	3	0.5%	4.3%	456	46	3	3	0.7%	7.3%
19.00	903	102	421	3	46.7%	2.6%	555	73	3	3	0.5%	3.6%	521	56	3	3	0.5%	4.7%
20.00	549	98	3	3	0.5%	2.7%	406	74	3	3	0.7%	3.6%	369	49	3	3	0.7%	5.4%
21.00	394	73	4	4	0.9%	5.0%	322	54	4	4	1.1%	6.7%	231	38	4	4	1.6%	9.5%
22.00	309	54	4	4	1.2%	6.8%	285	30	4	4	1.3%	12.1%	314	15	4	4	1.2%	24.4%
23.00	203	51	0	0	0.0%	0.0%	209	34	0	0	0.0%	0.0%	202	15	0	0	0.0%	0.0%
12 hr	18780	2915	158	158	0.8%	5.4%	10393	1612	523	116	5.0%	7.2%	6373	985	514	108	8.1%	10.9%
24 hr	24487	3937	1007	170	4.1%	4.3%	14260	2393	942	129	6.6%	5.4%	9372	1388	933	120	10.0%	8.7%

Link 2 - Barge Way North of Swale Roundabout																		
2021 Baseline + K3 Operational + WKN Construction + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact																		
Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	133	40	0	0	0.0%	0.0%	138	36	0	0	0.0%	0.0%	105	31	0	0	0.0%	0.0%
01.00	136	37	0	0	0.0%	0.0%	112	31	0	0	0.0%	0.0%	92	30	0	0	0.0%	0.0%
02.00	174	38	0	0	0.0%	0.0%	135	40	0	0	0.0%	0.0%	93	27	0	0	0.0%	0.0%
03.00	228	56	0	0	0.0%	0.0%	171	48	0	0	0.0%	0.0%	86	30	0	0	0.0%	0.0%
04.00	313	68	0	0	0.0%	0.0%	216	62	0	0	0.0%	0.0%	109	33	0	0	0.0%	0.0%
05.00	550	104	0	0	0.0%	0.0%	351	90	0	0	0.0%	0.0%	199	60	0	0	0.0%	0.0%
06.00	539	143	407	0	75.5%	0.0%	318	128	407	0	128.1%	0.0%	177	82	407	0	229.9%	0.0%
07.00	551	179	13	13	2.4%	7.3%	337	145	13	13	3.9%	9.1%	185	102	12	12	6.3%	11.5%
08.00	558	177	13	13	2.4%	7.4%	321	148	13	13	4.1%	8.9%	197	91	12	12	5.9%	12.8%
09.00	466	195	12	12	2.6%	6.2%	308	154	12	12	3.9%	7.9%	179	102	11	11	5.9%	10.5%
10.00	477	201	12	12	2.5%	6.0%	319	143	12	12	3.8%	8.5%	183	106	11	11	5.8%	10.0%
11.00	434	200	12	12	2.8%	6.1%	290	149	12	12	4.2%	8.1%	208	119	11	11	5.1%	9.0%
12.00	448	184	12	12	2.7%	6.6%	269	111	12	12	4.5%	10.9%	243	90	11	11	4.4%	11.9%
13.00	546	208	12	12	2.2%	5.7%	332	119	10	10	3.1%	8.7%	242	109	10	10	4.3%	9.5%
14.00	541	217	12	12	2.2%	5.4%	302	131	10	10	3.4%	7.9%	214	107	10	10	4.8%	9.7%
15.00	538	215	12	12	2.3%	5.6%	317	140	11	11	3.4%	7.6%	206	110	11	11	5.2%	9.7%
16.00	555	180	12	12	2.2%	6.7%	263	94	410	4	156.3%	3.9%	238	100	410	4	172.2%	3.7%
17.00	541	145	13	13	2.4%	8.8%	230	87	3	3	1.4%	3.8%	211	78	3	3	1.6%	4.3%
18.00	388	114	13	13	3.3%	11.2%	192	58	3	3	1.7%	5.8%	148	52	3	3	2.2%	6.4%
19.00	253	90	409	3	161.6%	2.9%	139	74	3	3	1.9%	3.6%	135	59	3	3	2.0%	4.5%
20.00	188	69	3	3	1.4%	3.8%	111	62	3	3	2.4%	4.3%	104	55	3	3	2.5%	4.9%
21.00	154	52	4	4	2.4%	7.1%	98	45	4	4	3.7%	8.1%	83	39	4	4	4.4%	9.3%
22.00	118	37	4	4	3.1%	9.9%	76	28	4	4	4.8%	13.0%	82	20	4	4	4.5%	18.3%
23.00	148	46	0	0	0.0%	0.0%	82	29	0	0	0.0%	0.0%	79	25	0	0	0.0%	0.0%
12 hr	6044	2214	148	148	2.5%	6.7%	3480	1477	523	116	15.0%	7.9%	2454	1163	514	108	21.0%	9.2%
24 hr	8978	2994	974	161	10.8%	5.4%	5427	2151	942	129	17.4%	6.0%	3797	1655	933	120	24.6%	7.3%

Link 3 - Barge Way East of Fleet End Roundabout

2021 Baseline + K3 Operational + WKN Construction + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	2021 Baseline + K3 Operational + WKN Construction + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact																	
	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	45	23	0	0	0.0%	0.0%	95	19	0	0	0.0%	0.0%	19	15	0	0	0.0%	0.0%
01.00	43	22	0	0	0.0%	0.0%	39	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
02.00	62	24	0	0	0.0%	0.0%	40	30	0	0	0.0%	0.0%	18	15	0	0	0.0%	0.0%
03.00	75	26	0	0	0.0%	0.0%	24	17	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
04.00	116	32	0	0	0.0%	0.0%	43	25	0	0	0.0%	0.0%	25	15	0	0	0.0%	0.0%
05.00	231	41	0	0	0.0%	0.0%	102	22	0	0	0.0%	0.0%	60	16	0	0	0.0%	0.0%
06.00	284	59	407	0	143.2%	0.0%	119	44	407	0	343.0%	0.0%	64	18	407	0	636.4%	0.0%
07.00	337	97	13	13	3.9%	13.5%	161	67	13	13	8.1%	19.5%	93	38	12	12	12.5%	31.0%
08.00	336	105	13	13	3.9%	12.4%	169	71	13	13	7.8%	18.4%	116	35	12	12	10.0%	33.7%
09.00	256	108	12	12	4.7%	11.2%	150	71	12	12	8.1%	17.0%	83	35	11	11	12.9%	30.8%
10.00	245	110	12	12	5.0%	11.0%	138	66	12	12	8.8%	18.3%	83	35	11	11	12.8%	30.8%
11.00	220	107	12	12	5.5%	11.3%	124	52	12	12	9.8%	23.2%	77	37	11	11	13.9%	29.1%
12.00	254	108	12	12	4.8%	11.2%	116	47	12	12	10.5%	25.7%	84	36	11	11	12.7%	29.9%
13.00	292	109	12	12	4.0%	10.8%	139	38	10	10	7.4%	27.4%	119	34	10	10	8.6%	30.7%
14.00	269	119	12	12	4.4%	9.9%	116	37	10	10	8.9%	28.2%	99	34	10	10	10.4%	30.7%
15.00	242	116	12	12	5.0%	10.5%	103	41	11	11	10.3%	26.2%	85	35	11	11	12.5%	30.8%
16.00	274	95	12	12	4.4%	12.8%	104	32	410	4	393.5%	11.6%	98	31	410	4	417.8%	11.9%
17.00	315	75	13	13	4.1%	17.0%	115	29	3	3	2.9%	11.6%	124	28	3	3	2.7%	12.1%
18.00	166	49	13	13	7.7%	25.8%	67	17	3	3	5.0%	19.6%	64	16	3	3	5.2%	20.8%
19.00	93	33	409	3	438.5%	8.0%	52	15	3	3	5.1%	17.7%	55	15	3	3	4.9%	17.7%
20.00	82	32	3	3	3.2%	8.4%	34	17	3	3	7.7%	15.6%	33	15	3	3	8.0%	17.7%
21.00	77	24	4	4	4.8%	15.1%	36	15	4	4	10.0%	24.4%	35	17	4	4	10.3%	21.5%
22.00	50	26	4	4	7.3%	14.1%	21	15	4	4	17.2%	24.4%	28	16	4	4	12.9%	22.9%
23.00	45	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%	22	16	0	0	0.0%	0.0%
12 hr	3206	1199	148	148	4.6%	12.3%	1503	568	523	116	34.8%	20.5%	1126	390	514	108	45.7%	27.6%
24 hr	4409	1564	974	161	22.1%	10.3%	2124	825	942	129	44.4%	15.6%	1518	577	933	120	61.5%	20.8%

Link 4 - A249 South of Swale Way Junction

2021 Baseline + K3 Operational + WKN Construction + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	240	67	0	0	0.0%	0.0%	398	68	0	0	0.0%	0.0%	458	45	0	0	0.0%	0.0%
01.00	174	58	0	0	0.0%	0.0%	267	63	0	0	0.0%	0.0%	296	38	0	0	0.0%	0.0%
02.00	172	65	0	0	0.0%	0.0%	227	73	0	0	0.0%	0.0%	209	42	0	0	0.0%	0.0%
03.00	242	83	0	0	0.0%	0.0%	228	73	0	0	0.0%	0.0%	176	44	0	0	0.0%	0.0%
04.00	553	144	0	0	0.0%	0.0%	310	81	0	0	0.0%	0.0%	201	45	0	0	0.0%	0.0%
05.00	1343	244	0	0	0.0%	0.0%	700	145	0	0	0.0%	0.0%	414	80	0	0	0.0%	0.0%
06.00	2383	308	401	0	16.8%	0.0%	1212	186	390	0	32.1%	0.0%	796	114	390	0	49.0%	0.0%
07.00	3160	370	13	13	0.4%	3.5%	1450	224	13	13	0.9%	5.8%	829	131	12	12	1.4%	8.9%
08.00	2917	375	14	14	0.5%	3.7%	1846	236	13	13	0.7%	5.5%	1143	131	12	12	1.0%	8.9%
09.00	2224	388	13	13	0.6%	3.3%	2079	254	12	12	0.6%	4.7%	1652	172	11	11	0.6%	6.2%
10.00	2133	410	13	13	0.6%	3.1%	2374	243	12	12	0.5%	5.0%	2114	188	11	11	0.5%	5.7%
11.00	2167	400	13	13	0.6%	3.2%	2518	238	12	12	0.5%	5.1%	2337	187	11	11	0.5%	5.7%
12.00	2328	394	13	13	0.6%	3.3%	2710	214	12	12	0.4%	5.6%	2197	159	11	11	0.5%	6.7%
13.00	2364	410	13	13	0.5%	3.1%	2646	212	10	10	0.4%	4.9%	2160	167	10	10	0.5%	6.2%
14.00	2606	411	13	13	0.5%	3.1%	2428	198	10	10	0.4%	5.2%	2179	168	10	10	0.5%	6.1%
15.00	2890	406	13	13	0.4%	3.2%	2378	201	11	11	0.4%	5.3%	2148	180	11	11	0.5%	5.9%
16.00	3415	342	13	13	0.4%	3.8%	2475	169	393	4	15.9%	2.2%	2414	167	393	4	16.3%	2.2%
17.00	3701	303	14	14	0.4%	4.5%	2360	159	3	3	0.1%	2.1%	1973	154	3	3	0.2%	2.2%
18.00	2781	262	13	13	0.5%	4.8%	2038	134	3	3	0.2%	2.5%	1863	129	3	3	0.2%	2.6%
19.00	2013	189	404	3	20.1%	1.4%	1601	123	3	3	0.2%	2.2%	1548	115	3	3	0.2%	2.3%
20.00	1277	142	3	3	0.2%	1.9%	1164	91	3	3	0.2%	2.9%	1279	100	3	3	0.2%	2.7%
21.00	956	109	4	4	0.4%	3.4%	973	71	4	4	0.4%	5.2%	935	83	4	4	0.4%	4.4%
22.00	735	74	4	4	0.5%	5.0%	861	49	4	4	0.4%	7.5%	554	45	4	4	0.7%	8.2%
23.00	440	63	0	0	0.0%	0.0%	664	50	0	0	0.0%	0.0%	336	47	0	0	0.0%	0.0%
12 hr	32685	4472	156	156	0.5%	3.5%	27303	2482	505	116	1.9%	4.7%	23009	1933	497	108	2.2%	5.6%
24 hr	43212	6017	970	168	2.2%	2.8%	35910	3554	908	128	2.5%	3.6%	30210	2731	899	120	3.0%	4.4%

Link 5 - A249 between the A2 and M2

2021 Baseline + K3 Operational + WKN Construction + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	338	91	0	0	0.0%	0.0%	564	93	0	0	0.0%	0.0%	649	60	0	0	0.0%	0.0%
01.00	243	79	0	0	0.0%	0.0%	377	85	0	0	0.0%	0.0%	419	50	0	0	0.0%	0.0%
02.00	241	87	0	0	0.0%	0.0%	320	99	0	0	0.0%	0.0%	295	55	0	0	0.0%	0.0%
03.00	339	113	0	0	0.0%	0.0%	322	100	0	0	0.0%	0.0%	247	58	0	0	0.0%	0.0%
04.00	782	199	0	0	0.0%	0.0%	438	111	0	0	0.0%	0.0%	282	59	0	0	0.0%	0.0%
05.00	1878	328	0	0	0.0%	0.0%	976	190	0	0	0.0%	0.0%	567	97	0	0	0.0%	0.0%
06.00	3269	406	383	0	11.7%	0.0%	1614	237	372	0	23.1%	0.0%	1018	134	372	0	36.6%	0.0%
07.00	4405	470	13	13	0.3%	2.7%	2004	275	13	13	0.6%	4.6%	1137	153	11	11	1.0%	7.3%
08.00	3990	475	13	13	0.3%	2.8%	2566	293	13	13	0.5%	4.3%	1579	154	11	11	0.7%	7.2%
09.00	3078	491	12	12	0.4%	2.5%	2929	315	12	12	0.4%	3.7%	2325	209	10	10	0.4%	4.9%
10.00	2943	519	12	12	0.4%	2.4%	3350	296	12	12	0.3%	3.9%	3012	230	10	10	0.3%	4.4%
11.00	2997	508	12	12	0.4%	2.4%	3568	290	12	12	0.3%	4.0%	3343	229	10	10	0.3%	4.4%
12.00	3225	506	12	12	0.4%	2.5%	3859	265	12	12	0.3%	4.4%	3149	199	10	10	0.3%	5.1%
13.00	3269	524	13	13	0.4%	2.5%	3747	258	11	11	0.3%	4.2%	3071	203	11	11	0.4%	5.3%
14.00	3609	529	13	13	0.4%	2.5%	3450	242	11	11	0.3%	4.5%	3089	209	11	11	0.4%	5.2%
15.00	4037	518	13	13	0.3%	2.6%	3373	242	11	11	0.3%	4.6%	3051	221	11	11	0.4%	5.0%
16.00	4779	433	13	13	0.3%	3.1%	3433	204	376	4	11.0%	1.8%	3350	211	376	4	11.2%	1.7%
17.00	5155	377	13	13	0.3%	3.5%	3351	191	3	3	0.1%	1.7%	2791	193	3	3	0.1%	1.7%
18.00	3918	329	12	12	0.3%	3.7%	2909	164	3	3	0.1%	2.0%	2658	166	3	3	0.1%	2.0%
19.00	2751	244	386	3	14.0%	1.1%	2253	153	3	3	0.1%	1.7%	2177	143	3	3	0.1%	1.9%
20.00	1790	180	3	3	0.1%	1.5%	1639	112	3	3	0.2%	2.4%	1803	123	3	3	0.1%	2.2%
21.00	1337	138	4	4	0.3%	2.6%	1370	87	4	4	0.3%	4.2%	1315	105	4	4	0.3%	3.5%
22.00	1030	100	4	4	0.4%	3.7%	1225	65	4	4	0.3%	5.6%	786	60	4	4	0.5%	6.1%
23.00	621	86	0	0	0.0%	0.0%	945	66	0	0	0.0%	0.0%	475	62	0	0	0.0%	0.0%
12 hr	45404	5680	154	154	0.3%	2.7%	38539	3034	487	115	1.3%	3.8%	32554	2376	478	106	1.5%	4.5%
24 hr	60022	7731	933	167	1.6%	2.2%	50583	4433	872	127	1.7%	2.9%	42587	3381	863	119	2.0%	3.5%

Link 6 - M2 West

2021 Baseline + K3 Operational + WKN Construction + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	428	111	0	0	0.0%	0.0%	711	123	0	0	0.0%	0.0%	869	69	0	0	0.0%	0.0%
01.00	326	103	0	0	0.0%	0.0%	472	106	0	0	0.0%	0.0%	533	66	0	0	0.0%	0.0%
02.00	341	117	0	0	0.0%	0.0%	398	99	0	0	0.0%	0.0%	355	51	0	0	0.0%	0.0%
03.00	467	160	0	0	0.0%	0.0%	419	120	0	0	0.0%	0.0%	315	71	0	0	0.0%	0.0%
04.00	1075	267	0	0	0.0%	0.0%	566	151	0	0	0.0%	0.0%	338	62	0	0	0.0%	0.0%
05.00	2830	449	0	0	0.0%	0.0%	1199	213	0	0	0.0%	0.0%	687	98	0	0	0.0%	0.0%
06.00	4315	527	116	0	2.7%	0.0%	1851	269	112	0	6.1%	0.0%	1077	126	112	0	10.4%	0.0%
07.00	5711	553	7	7	0.1%	1.3%	2530	316	7	7	0.3%	2.3%	1415	145	7	7	0.5%	4.8%
08.00	5282	606	7	7	0.1%	1.2%	3244	322	7	7	0.2%	2.2%	1889	148	7	7	0.4%	4.6%
09.00	4378	631	7	7	0.2%	1.1%	3635	320	7	7	0.2%	2.0%	2788	196	6	6	0.2%	3.2%
10.00	4039	619	7	7	0.2%	1.1%	4155	312	7	7	0.2%	2.1%	3768	225	6	6	0.2%	2.8%
11.00	4032	602	7	7	0.2%	1.1%	4605	293	7	7	0.1%	2.2%	4306	253	6	6	0.1%	2.5%
12.00	4382	642	7	7	0.2%	1.1%	4829	271	7	7	0.1%	2.4%	4639	227	6	6	0.1%	2.8%
13.00	4547	664	7	7	0.2%	1.1%	4749	267	7	7	0.1%	2.5%	4407	238	7	7	0.2%	2.8%
14.00	4838	663	7	7	0.2%	1.1%	4374	261	7	7	0.2%	2.6%	4015	236	7	7	0.2%	2.8%
15.00	5344	645	7	7	0.1%	1.2%	4200	244	7	7	0.2%	2.8%	3835	226	7	7	0.2%	3.0%
16.00	6285	523	7	7	0.1%	1.4%	4422	224	115	2	2.6%	1.0%	4286	211	115	2	2.7%	1.1%
17.00	6683	429	7	7	0.1%	1.7%	4156	192	2	2	0.0%	1.1%	3860	198	2	2	0.1%	1.0%
18.00	4992	355	7	7	0.1%	1.9%	3665	172	2	2	0.1%	1.2%	3400	157	2	2	0.1%	1.3%
19.00	3293	272	117	2	3.6%	0.6%	2806	140	2	2	0.1%	1.2%	2808	141	2	2	0.1%	1.2%
20.00	2271	187	2	2	0.1%	0.9%	2029	102	2	2	0.1%	1.6%	2121	103	2	2	0.1%	1.6%
21.00	1668	132	2	2	0.1%	1.7%	1577	83	2	2	0.1%	2.7%	1505	88	2	2	0.1%	2.6%
22.00	1339	112	2	2	0.2%	2.0%	1568	63	2	2	0.1%	3.6%	970	62	2	2	0.2%	3.7%
23.00	800	108	0	0	0.0%	0.0%	1213	69	0	0	0.0%	0.0%	556	79	0	0	0.0%	0.0%
12 hr	60515	6931	86	86	0.1%	1.2%	48566	3196	179	67	0.4%	2.1%	42608	2461	178	65	0.4%	2.7%
24 hr	79669	9476	325	93	0.4%	1.0%	63375	4733	300	75	0.5%	1.6%	54742	3475	298	73	0.5%	2.1%

Link 7 - M2 East

2021 Baseline + K3 Operational + WKN Construction + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.0%	0.0%	650	110	0	0	0.0%	0.0%	795	61	0	0	0.0%	0.0%
01.00	297	92	0	0	0.0%	0.0%	430	94	0	0	0.0%	0.0%	487	58	0	0	0.0%	0.0%
02.00	311	105	0	0	0.0%	0.0%	363	88	0	0	0.0%	0.0%	323	44	0	0	0.0%	0.0%
03.00	426	144	0	0	0.0%	0.0%	382	108	0	0	0.0%	0.0%	287	63	0	0	0.0%	0.0%
04.00	984	242	0	0	0.0%	0.0%	517	136	0	0	0.0%	0.0%	308	54	0	0	0.0%	0.0%
05.00	2575	395	0	0	0.0%	0.0%	1082	178	0	0	0.0%	0.0%	611	72	0	0	0.0%	0.0%
06.00	3905	453	57	0	1.5%	0.0%	1647	217	56	0	3.4%	0.0%	936	86	56	0	5.9%	0.0%
07.00	5181	472	1	1	0.0%	0.2%	2282	256	1	1	0.0%	0.4%	1256	98	1	1	0.1%	0.8%
08.00	4760	521	1	1	0.0%	0.2%	2933	263	1	1	0.0%	0.4%	1688	104	1	1	0.0%	0.7%
09.00	3956	540	1	1	0.0%	0.2%	3286	256	1	1	0.0%	0.3%	2511	143	1	1	0.0%	0.5%
10.00	3642	526	1	1	0.0%	0.2%	3759	246	1	1	0.0%	0.4%	3399	166	1	1	0.0%	0.4%
11.00	3638	512	1	1	0.0%	0.2%	4173	229	1	1	0.0%	0.4%	3893	193	1	1	0.0%	0.4%
12.00	3964	558	1	1	0.0%	0.2%	4386	219	1	1	0.0%	0.4%	4209	180	1	1	0.0%	0.4%
13.00	4106	569	1	1	0.0%	0.2%	4299	207	1	1	0.0%	0.4%	3983	180	1	1	0.0%	0.4%
14.00	4376	573	1	1	0.0%	0.2%	3961	206	1	1	0.0%	0.4%	3636	183	1	1	0.0%	0.4%
15.00	4837	552	1	1	0.0%	0.2%	3797	186	1	1	0.0%	0.4%	3464	169	1	1	0.0%	0.4%
16.00	5704	446	1	1	0.0%	0.3%	3994	177	56	0	1.4%	0.1%	3872	165	56	0	1.4%	0.1%
17.00	6058	361	1	1	0.0%	0.3%	3768	150	0	0	0.0%	0.1%	3501	155	0	0	0.0%	0.1%
18.00	4542	305	1	1	0.0%	0.3%	3333	142	0	0	0.0%	0.2%	3093	128	0	0	0.0%	0.2%
19.00	2976	228	57	0	1.9%	0.1%	2552	107	0	0	0.0%	0.2%	2553	108	0	0	0.0%	0.2%
20.00	2064	154	0	0	0.0%	0.1%	1844	76	0	0	0.0%	0.2%	1928	76	0	0	0.0%	0.2%
21.00	1516	108	0	0	0.0%	0.2%	1433	63	0	0	0.0%	0.4%	1367	68	0	0	0.0%	0.4%
22.00	1223	100	0	0	0.0%	0.2%	1436	55	0	0	0.0%	0.4%	887	54	0	0	0.0%	0.5%
23.00	731	96	0	0	0.0%	0.0%	1111	60	0	0	0.0%	0.0%	508	70	0	0	0.0%	0.0%
12 hr	54766	5936	13	13	0.0%	0.2%	43971	2538	64	8	0.1%	0.3%	38503	1863	63	7	0.2%	0.4%
24 hr	72162	8151	129	14	0.2%	0.2%	57418	3831	120	9	0.2%	0.2%	49494	2676	119	8	0.2%	0.3%

Link 8 - Swale Way north of Reams Way Junction																		
2021 Baseline + K3 Operational + WKN Construction + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact																		
Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	814	51	12	0	1.5%	0.0%	410	19	0	0	0.0%	0.0%	299	12	0	0	0.0%	0.0%
07.00	1414	85	0	0	0.0%	0.0%	349	22	0	0	0.0%	0.0%	154	12	0	0	0.0%	0.0%
08.00	1499	83	1	1	0.1%	1.2%	450	30	0	0	0.0%	0.0%	153	14	0	0	0.0%	0.0%
09.00	950	99	1	1	0.1%	1.0%	571	31	0	0	0.0%	0.0%	322	13	0	0	0.0%	0.0%
10.00	839	106	1	1	0.1%	0.9%	704	34	0	0	0.0%	0.0%	437	18	0	0	0.0%	0.0%
11.00	830	100	1	1	0.1%	1.0%	770	23	0	0	0.0%	0.0%	529	24	0	0	0.0%	0.0%
12.00	932	102	1	1	0.1%	1.0%	732	25	0	0	0.0%	0.0%	556	19	0	0	0.0%	0.0%
13.00	900	93	1	1	0.1%	1.1%	692	33	0	0	0.0%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	1	1	0.1%	1.0%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1188	86	1	1	0.1%	1.2%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	1	1	0.1%	1.3%	723	20	0	0	0.0%	0.0%	709	17	0	0	0.0%	0.0%
17.00	1299	61	1	1	0.1%	1.6%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	0	0	0.0%	0.0%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	653	37	12	0	1.8%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	259	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.0%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13175	1052	10	10	0.1%	1.0%	7301	304	0	0	0.0%	0.0%	5413	184	0	0	0.0%	0.0%
24 hr	16456	1362	34	10	0.2%	0.7%	9273	431	0	0	0.0%	0.0%	6957	280	0	0	0.0%	0.0%



Link 9 - Swale Way south of Reams Way Junction

2021 Baseline + K3 Operational + WKN Construction + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	826	57	12	0	1.5%	0.0%	443	20	0	0	0.0%	0.0%	303	13	0	0	0.0%	0.0%
07.00	1416	85	0	0	0.0%	0.0%	347	27	0	0	0.0%	0.0%	188	12	0	0	0.0%	0.0%
08.00	1432	94	1	1	0.1%	1.1%	484	26	0	0	0.0%	0.0%	155	7	0	0	0.0%	0.0%
09.00	917	105	1	1	0.1%	1.0%	575	35	0	0	0.0%	0.0%	324	15	0	0	0.0%	0.0%
10.00	828	107	1	1	0.1%	0.9%	716	25	0	0	0.0%	0.0%	474	15	0	0	0.0%	0.0%
11.00	850	108	1	1	0.1%	0.9%	775	35	0	0	0.0%	0.0%	506	17	0	0	0.0%	0.0%
12.00	917	98	1	1	0.1%	1.0%	749	34	0	0	0.0%	0.0%	522	15	0	0	0.0%	0.0%
13.00	950	92	1	1	0.1%	1.1%	622	32	0	0	0.0%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	1	1	0.1%	1.0%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	1	1	0.1%	1.1%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1433	82	1	1	0.1%	1.2%	717	19	0	0	0.0%	0.0%	610	14	0	0	0.0%	0.0%
17.00	1370	64	1	1	0.1%	1.6%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	0	0	0.0%	0.0%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	647	34	12	0	1.9%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.0%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13210	1093	10	10	0.1%	0.9%	7146	316	0	0	0.0%	0.0%	5030	194	0	0	0.0%	0.0%
24 hr	16474	1403	34	10	0.2%	0.7%	9189	425	0	0	0.0%	0.0%	6512	278	0	0	0.0%	0.0%

**Link 10 - Swale Way south of Ridham Avenue Roundabout**

**2021 Baseline + K3 Operational + WKN Construction + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	566	37	12	0	2.1%	0.0%	198	12	0	0	0.0%	0.0%	100	5	0	0	0.0%	0.0%
07.00	1313	67	0	0	0.0%	0.0%	319	16	0	0	0.0%	0.0%	138	5	0	0	0.0%	0.0%
08.00	1401	71	1	1	0.1%	1.4%	421	17	0	0	0.0%	0.0%	139	4	0	0	0.0%	0.0%
09.00	869	83	1	1	0.1%	1.2%	542	18	0	0	0.0%	0.0%	312	4	0	0	0.0%	0.0%
10.00	741	88	1	1	0.1%	1.1%	681	16	0	0	0.0%	0.0%	404	8	0	0	0.0%	0.0%
11.00	740	75	1	1	0.1%	1.3%	764	11	0	0	0.0%	0.0%	518	9	0	0	0.0%	0.0%
12.00	823	81	1	1	0.1%	1.2%	717	15	0	0	0.0%	0.0%	540	11	0	0	0.0%	0.0%
13.00	833	74	1	1	0.1%	1.4%	658	16	0	0	0.0%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	77	1	1	0.1%	1.3%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	1	1	0.1%	1.3%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	1	1	0.1%	1.5%	533	13	0	0	0.0%	0.0%	522	11	0	0	0.0%	0.0%
17.00	1242	56	1	1	0.1%	1.8%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	50	0	0	0.0%	0.0%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	432	20	12	0	2.8%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.0%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12154	863	10	10	0.1%	1.2%	6807	170	0	0	0.0%	0.0%	5024	84	0	0	0.0%	0.0%
24 hr	14593	1055	34	10	0.2%	0.9%	8380	245	0	0	0.0%	0.0%	6219	120	0	0	0.0%	0.0%

Link 11 - A249 North of Swale Way Junction

2021 Baseline + K3 Operational + WKN Construction + 2021 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact		2021 Baseline		Development + Construction + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.0%	0.0%	436	30	0	0	0.0%	0.0%
07.00	3012	191	0	0	0.0%	0.0%	1139	82	0	0	0.0%	0.0%	581	26	0	0	0.0%	0.0%
08.00	2710	235	0	0	0.0%	0.1%	1543	83	0	0	0.0%	0.0%	872	31	0	0	0.0%	0.0%
09.00	2053	238	0	0	0.0%	0.1%	1887	76	0	0	0.0%	0.1%	1368	48	0	0	0.0%	0.0%
10.00	1965	234	0	0	0.0%	0.1%	2223	85	0	0	0.0%	0.0%	2020	41	0	0	0.0%	0.0%
11.00	2067	230	0	0	0.0%	0.1%	2492	71	0	0	0.0%	0.1%	2331	38	0	0	0.0%	0.0%
12.00	2199	227	0	0	0.0%	0.1%	2640	63	0	0	0.0%	0.1%	2543	44	0	0	0.0%	0.0%
13.00	2235	222	0	0	0.0%	0.1%	2540	61	0	0	0.0%	0.0%	2417	47	0	0	0.0%	0.0%
14.00	2350	239	0	0	0.0%	0.1%	2406	57	0	0	0.0%	0.0%	2134	42	0	0	0.0%	0.0%
15.00	2574	205	0	0	0.0%	0.1%	2333	45	0	0	0.0%	0.0%	2049	45	0	0	0.0%	0.0%
16.00	3164	170	0	0	0.0%	0.1%	2290	49	0	0	0.0%	0.0%	2114	41	0	0	0.0%	0.0%
17.00	3303	126	0	0	0.0%	0.1%	2189	36	0	0	0.0%	0.0%	1964	39	0	0	0.0%	0.0%
18.00	2284	83	0	0	0.0%	0.0%	1847	36	0	0	0.0%	0.0%	1763	43	0	0	0.0%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	0	0	0.0%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	0	0	0.0%	0.0%	822	25	0	0	0.0%	0.0%	704	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.0%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.0%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29916	2398	2	2	0.0%	0.1%	25528	742	0	0	0.0%	0.0%	22156	485	0	0	0.0%	0.0%
24 hr	37860	3121	3	2	0.0%	0.1%	32342	1117	0	0	0.0%	0.0%	27697	709	0	0	0.0%	0.0%

**Link 1 - Swale Way East of B2005 Groveshurst Roundabout**

**2021 Baseline + K3 Operational + WKN Construction (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	160	51	5	5	3.1%	9.7%	179	45	5	5	2.8%	10.9%	184	15	5	5	2.7%	32.9%
01.00	148	46	5	5	3.3%	10.8%	158	56	5	5	3.1%	8.9%	157	14	5	5	3.2%	35.3%
02.00	164	42	5	5	3.0%	11.8%	128	45	5	5	3.9%	10.9%	97	13	5	5	5.1%	38.1%
03.00	242	66	5	5	2.1%	7.5%	165	46	5	5	3.0%	10.7%	82	15	5	5	6.0%	32.9%
04.00	366	80	5	5	1.4%	6.2%	204	61	5	5	2.4%	8.2%	100	16	5	5	5.0%	30.9%
05.00	945	135	5	5	0.5%	3.7%	530	93	5	5	0.9%	5.3%	289	47	5	5	1.7%	10.6%
06.00	1285	189	416	5	32.3%	2.6%	687	134	416	5	60.6%	3.7%	416	75	416	5	99.9%	6.6%
07.00	1892	223	42	38	2.2%	16.9%	684	135	42	38	6.2%	27.9%	278	68	33	29	12.0%	43.0%
08.00	2200	213	49	38	2.2%	17.8%	712	117	50	38	7.0%	32.5%	293	64	41	29	14.0%	45.4%
09.00	1333	236	37	37	2.8%	15.6%	785	140	37	37	4.7%	26.4%	314	72	28	28	9.0%	39.1%
10.00	1214	258	37	37	3.0%	14.3%	893	140	37	37	4.1%	26.3%	333	81	28	28	8.5%	34.9%
11.00	1240	244	37	37	3.0%	15.1%	922	136	37	37	4.0%	27.2%	554	78	28	28	5.1%	36.0%
12.00	1359	229	37	37	2.7%	16.1%	944	112	37	37	3.9%	32.8%	854	62	28	28	3.3%	45.5%
13.00	1471	251	41	37	2.8%	14.5%	909	114	32	28	3.5%	24.5%	516	75	32	28	6.2%	37.2%
14.00	1452	243	41	37	2.8%	15.0%	888	111	32	28	3.6%	25.2%	529	70	32	28	6.1%	39.9%
15.00	1577	240	37	37	2.3%	15.4%	904	117	28	28	3.1%	24.1%	535	72	28	28	5.3%	39.2%
16.00	1706	196	37	37	2.1%	18.8%	974	96	428	21	43.9%	22.1%	816	53	428	21	52.4%	40.0%
17.00	1807	162	49	38	2.7%	23.2%	810	81	33	21	4.0%	25.8%	666	50	33	21	4.9%	41.8%
18.00	1209	136	25	25	2.0%	18.3%	690	72	8	8	1.2%	11.6%	451	41	8	8	1.8%	20.3%
19.00	898	97	414	8	46.1%	7.9%	550	68	8	8	1.4%	11.2%	516	51	8	8	1.5%	14.9%
20.00	544	93	8	8	1.4%	8.2%	401	69	8	8	1.9%	11.1%	364	44	8	8	2.1%	17.4%
21.00	384	68	13	9	3.3%	12.7%	313	49	13	9	4.1%	17.5%	221	33	13	9	5.8%	25.8%
22.00	300	49	13	9	4.3%	17.5%	276	25	13	9	4.6%	34.2%	305	10	13	9	4.2%	86.2%
23.00	198	46	5	5	2.5%	10.8%	204	29	5	5	2.4%	17.0%	197	10	5	5	2.5%	49.6%
12 hr	18461	2630	466	432	2.5%	16.4%	10115	1371	801	358	7.9%	26.1%	6138	787	749	306	12.2%	38.9%
24 hr	24096	3593	1364	504	5.7%	14.0%	13910	2092	1292	430	9.3%	20.5%	9065	1130	1240	378	13.7%	33.5%

**Link 2 - Barge Way North of Swale Roundabout**

**2021 Baseline + K3 Operational + WKN Construction (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	128	35	5	5	3.9%	14.1%	133	31	5	5	3.7%	15.9%	100	26	5	5	5.0%	18.9%
01.00	131	32	5	5	3.8%	15.6%	107	26	5	5	4.6%	18.9%	87	25	5	5	5.7%	19.7%
02.00	169	33	5	5	2.9%	15.0%	130	35	5	5	3.8%	14.1%	88	22	5	5	5.6%	22.4%
03.00	223	51	5	5	2.2%	9.6%	166	43	5	5	3.0%	11.4%	81	25	5	5	6.1%	19.7%
04.00	308	63	5	5	1.6%	7.9%	211	57	5	5	2.3%	8.8%	104	28	5	5	4.8%	17.6%
05.00	545	99	5	5	0.9%	5.0%	346	85	5	5	1.4%	5.8%	194	55	5	5	2.6%	9.1%
06.00	530	138	416	5	78.5%	3.6%	308	123	416	5	134.9%	4.0%	168	77	416	5	248.0%	6.4%
07.00	522	154	42	38	8.0%	24.8%	308	119	42	38	13.6%	32.0%	163	84	33	29	20.6%	34.8%
08.00	522	152	50	38	9.5%	25.2%	285	123	50	38	17.4%	31.1%	167	73	41	29	24.6%	39.9%
09.00	441	170	37	37	8.3%	21.9%	283	129	37	37	13.0%	28.9%	162	84	28	28	17.5%	33.6%
10.00	453	176	37	37	8.1%	21.2%	294	118	37	37	12.5%	31.5%	166	89	28	28	17.0%	31.8%
11.00	410	175	37	37	9.0%	21.3%	266	124	37	37	13.8%	30.1%	190	101	28	28	14.9%	27.8%
12.00	424	159	37	37	8.7%	23.5%	245	86	37	37	15.0%	43.2%	226	72	28	28	12.5%	39.3%
13.00	517	183	41	37	7.9%	20.2%	310	101	32	28	10.4%	27.6%	220	91	32	28	14.6%	30.6%
14.00	512	192	41	37	7.9%	19.2%	281	113	32	28	11.5%	24.7%	193	89	32	28	16.7%	31.4%
15.00	514	190	37	37	7.1%	19.6%	299	122	28	28	9.4%	23.1%	188	92	28	28	15.0%	30.7%
16.00	530	155	37	37	6.9%	24.0%	245	76	428	21	174.7%	27.9%	221	82	428	21	193.9%	25.8%
17.00	504	120	49	38	9.8%	31.6%	201	69	33	21	16.3%	30.3%	181	60	33	21	18.1%	34.9%
18.00	376	101	25	25	6.6%	24.9%	187	53	8	8	4.4%	15.7%	143	47	8	8	5.8%	17.8%
19.00	248	85	414	8	166.9%	9.0%	134	69	8	8	5.7%	11.0%	130	54	8	8	5.8%	14.1%
20.00	183	64	8	8	4.2%	11.8%	106	57	8	8	7.2%	13.4%	100	50	8	8	7.7%	15.3%
21.00	144	47	13	9	8.9%	18.4%	89	40	13	9	14.5%	21.4%	74	34	13	9	17.5%	25.2%
22.00	109	32	13	9	11.8%	26.9%	67	23	13	9	19.3%	37.2%	73	15	13	9	17.7%	57.2%
23.00	143	41	5	5	3.5%	12.1%	77	24	5	5	6.5%	20.5%	74	20	5	5	6.7%	24.7%
12 hr	5725	1925	467	437	8.2%	22.7%	3203	1234	800	360	25.0%	29.2%	2219	965	749	306	33.8%	31.7%
24 hr	8586	2646	1365	509	15.9%	19.2%	5078	1848	1291	432	25.4%	23.4%	3490	1397	1241	378	35.5%	27.1%

**Link 3 - Barge Way East of Fleet End Roundabout**

**2021 Baseline + K3 Operational + WKN Construction (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	18	5	5	12.5%	27.1%	90	14	5	5	5.5%	35.3%	14	10	5	5	35.3%	49.6%
01.00	38	17	5	5	12.9%	29.4%	34	17	5	5	14.5%	29.0%	11	10	5	5	45.1%	49.6%
02.00	57	20	5	5	8.7%	25.4%	35	25	5	5	14.1%	19.7%	13	10	5	5	38.1%	49.6%
03.00	71	21	5	5	7.0%	23.3%	19	12	5	5	26.0%	41.3%	11	10	5	5	45.1%	49.6%
04.00	111	27	5	5	4.5%	18.2%	38	20	5	5	12.9%	24.7%	20	10	5	5	24.7%	49.6%
05.00	226	36	5	5	2.2%	13.9%	97	17	5	5	5.1%	29.0%	55	11	5	5	9.0%	45.1%
06.00	275	54	416	5	151.4%	9.1%	109	39	416	5	380.3%	12.6%	55	13	416	5	760.3%	38.1%
07.00	308	72	42	38	13.8%	52.9%	132	42	42	38	32.1%	90.3%	71	20	33	29	46.9%	146.0%
08.00	299	80	50	38	16.7%	47.6%	132	46	50	38	37.9%	82.4%	87	17	41	29	47.4%	172.0%
09.00	231	83	37	37	16.1%	44.8%	125	46	37	37	29.8%	80.3%	65	17	28	28	43.4%	166.2%
10.00	220	85	37	37	16.9%	43.6%	113	41	37	37	32.9%	90.1%	66	17	28	28	43.0%	166.2%
11.00	195	82	37	37	19.1%	45.3%	98	27	37	37	37.8%	137.2%	59	19	28	28	47.9%	148.5%
12.00	228	83	37	37	16.3%	44.7%	91	22	37	37	41.0%	168.7%	66	18	28	28	42.6%	156.8%
13.00	262	84	41	37	15.7%	44.1%	117	20	32	28	27.5%	139.3%	98	16	32	28	33.0%	174.5%
14.00	240	94	41	37	17.1%	39.4%	94	19	32	28	34.1%	146.7%	77	16	32	28	41.7%	174.5%
15.00	217	91	37	37	17.1%	41.0%	86	23	28	28	33.0%	122.4%	67	17	28	28	41.9%	166.0%
16.00	249	69	37	37	14.9%	53.6%	87	14	428	21	493.6%	151.3%	81	13	428	21	530.8%	163.0%
17.00	278	50	50	38	17.9%	75.5%	86	11	33	21	38.2%	190.0%	95	10	33	21	34.5%	209.2%
18.00	154	37	25	25	16.4%	68.2%	62	12	8	8	13.4%	68.9%	59	11	8	8	14.1%	75.3%
19.00	88	28	414	8	468.7%	26.8%	47	10	8	8	16.3%	76.2%	50	10	8	8	15.3%	76.2%
20.00	77	27	8	8	9.8%	28.6%	29	12	8	8	25.9%	63.4%	28	10	8	8	26.8%	76.2%
21.00	67	19	13	9	19.1%	44.6%	27	10	13	9	47.3%	86.2%	26	12	13	9	49.1%	71.7%
22.00	41	21	13	9	31.5%	41.2%	12	10	13	9	106.9%	86.2%	19	11	13	9	67.3%	78.3%
23.00	40	17	5	5	12.4%	29.0%	11	10	5	5	45.1%	49.6%	17	11	5	5	29.0%	45.1%
12 hr	2881	911	473	437	16.4%	47.9%	1223	325	803	360	65.7%	110.8%	891	191	749	306	84.1%	160.1%
24 hr	4012	1216	1371	509	34.2%	41.8%	1772	522	1294	432	73.0%	82.8%	1210	319	1241	378	102.5%	118.5%

**Link 4 - A249 South of Swale Way Junction**

**2021 Baseline + K3 Operational + WKN Construction (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	235	62	5	5	2.1%	8.0%	393	63	5	5	1.3%	7.9%	453	40	5	5	1.1%	12.3%
01.00	169	53	5	5	2.9%	9.3%	262	58	5	5	1.9%	8.6%	291	33	5	5	1.7%	14.9%
02.00	167	60	5	5	3.0%	8.3%	222	68	5	5	2.2%	7.3%	204	37	5	5	2.4%	13.6%
03.00	237	78	5	5	2.1%	6.4%	223	68	5	5	2.2%	7.3%	171	39	5	5	2.9%	12.8%
04.00	548	139	5	5	0.9%	3.6%	305	76	5	5	1.6%	6.5%	196	40	5	5	2.5%	12.5%
05.00	1339	239	5	5	0.4%	2.1%	695	140	5	5	0.7%	3.5%	409	75	5	5	1.2%	6.6%
06.00	2374	303	399	5	16.8%	1.6%	1203	181	399	5	33.1%	2.7%	787	109	399	5	50.7%	4.5%
07.00	3131	346	42	37	1.3%	10.8%	1422	200	42	37	2.9%	18.8%	808	113	33	29	4.1%	25.8%
08.00	2881	350	49	37	1.7%	10.7%	1810	211	49	37	2.7%	17.7%	1114	113	41	29	3.6%	25.9%
09.00	2199	364	36	36	1.7%	10.0%	2055	230	36	36	1.8%	15.9%	1635	154	28	28	1.7%	18.4%
10.00	2108	385	36	36	1.7%	9.5%	2350	218	36	36	1.6%	16.7%	2097	171	28	28	1.3%	16.6%
11.00	2143	376	36	36	1.7%	9.7%	2493	213	36	36	1.5%	17.1%	2319	169	28	28	1.2%	16.7%
12.00	2303	369	36	36	1.6%	9.9%	2685	190	36	36	1.4%	19.2%	2179	142	28	28	1.3%	19.9%
13.00	2335	386	40	36	1.7%	9.4%	2625	195	32	28	1.2%	14.3%	2139	150	32	28	1.5%	18.6%
14.00	2577	387	40	36	1.6%	9.3%	2406	180	32	28	1.3%	15.5%	2157	151	32	28	1.5%	18.5%
15.00	2866	382	36	36	1.3%	9.6%	2360	184	28	28	1.2%	15.4%	2130	162	28	28	1.3%	17.4%
16.00	3391	318	36	36	1.1%	11.5%	2458	151	411	21	16.7%	14.0%	2396	150	411	21	17.1%	14.2%
17.00	3665	279	48	37	1.3%	13.3%	2331	142	32	21	1.4%	14.8%	1944	136	32	21	1.7%	15.4%
18.00	2769	250	25	25	0.9%	9.8%	2033	129	8	8	0.4%	6.4%	1858	124	8	8	0.4%	6.7%
19.00	2008	184	397	8	19.8%	4.1%	1596	118	8	8	0.5%	6.5%	1543	111	8	8	0.5%	6.9%
20.00	1272	137	8	8	0.6%	5.6%	1159	86	8	8	0.7%	8.8%	1274	95	8	8	0.6%	8.1%
21.00	947	104	13	9	1.3%	8.3%	964	66	13	9	1.3%	13.1%	926	78	13	9	1.4%	11.0%
22.00	726	69	13	9	1.7%	12.5%	852	44	13	9	1.5%	19.6%	545	40	13	9	2.3%	21.6%
23.00	435	58	5	5	1.1%	8.5%	659	45	5	5	0.8%	11.1%	331	42	5	5	1.5%	11.9%
12 hr	32369	4192	463	428	1.4%	10.2%	27028	2243	780	355	2.9%	15.9%	22776	1734	730	306	3.2%	17.6%
24 hr	42824	5677	1326	500	3.1%	8.8%	35563	3254	1254	428	3.5%	13.1%	29905	2473	1204	378	4.0%	15.3%

Link 5 - A249 between the A2 and M2

2021 Baseline + K3 Operational + WKN Construction (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	333	86	5	5	1.5%	5.8%	559	88	5	5	0.9%	5.7%	644	55	5	5	0.8%	9.0%
01.00	238	74	5	5	2.1%	6.7%	372	80	5	5	1.3%	6.2%	414	45	5	5	1.2%	11.0%
02.00	236	82	5	5	2.1%	6.0%	315	94	5	5	1.6%	5.3%	290	50	5	5	1.7%	10.0%
03.00	334	108	5	5	1.5%	4.6%	317	95	5	5	1.6%	5.2%	242	53	5	5	2.1%	9.3%
04.00	777	194	5	5	0.6%	2.6%	433	106	5	5	1.1%	4.7%	277	54	5	5	1.8%	9.2%
05.00	1873	323	5	5	0.3%	1.5%	971	185	5	5	0.5%	2.7%	562	92	5	5	0.9%	5.4%
06.00	3260	401	381	5	11.7%	1.2%	1605	232	381	5	23.7%	2.1%	1009	129	381	5	37.8%	3.9%
07.00	4376	445	42	38	0.9%	8.5%	1975	250	42	38	2.1%	15.1%	1116	135	33	29	2.9%	21.2%
08.00	3954	450	49	38	1.2%	8.4%	2530	268	49	38	1.9%	14.1%	1550	137	40	29	2.6%	21.0%
09.00	3053	466	37	37	1.2%	7.9%	2904	290	37	37	1.3%	12.7%	2308	191	28	28	1.2%	14.5%
10.00	2918	494	37	37	1.3%	7.4%	3325	271	37	37	1.1%	13.5%	2994	212	28	28	0.9%	13.1%
11.00	2971	482	37	37	1.2%	7.6%	3543	265	37	37	1.0%	13.9%	3325	212	28	28	0.8%	13.1%
12.00	3200	481	37	37	1.1%	7.6%	3834	240	37	37	1.0%	15.3%	3131	181	28	28	0.9%	15.3%
13.00	3240	499	41	37	1.3%	7.5%	3726	240	32	28	0.9%	11.8%	3050	186	32	28	1.1%	15.3%
14.00	3580	504	41	37	1.2%	7.4%	3429	224	32	28	0.9%	12.7%	3067	191	32	28	1.1%	14.9%
15.00	4011	493	38	38	0.9%	7.7%	3356	224	29	29	0.9%	12.8%	3034	204	29	29	0.9%	14.1%
16.00	4754	408	38	38	0.8%	9.3%	3416	186	394	21	11.5%	11.4%	3332	193	394	21	11.8%	11.0%
17.00	5120	352	48	37	0.9%	10.6%	3322	173	32	21	1.0%	12.1%	2762	175	32	21	1.1%	12.0%
18.00	3905	317	25	25	0.6%	7.8%	2904	159	8	8	0.3%	5.2%	2653	161	8	8	0.3%	5.2%
19.00	2746	239	380	8	13.8%	3.2%	2248	148	8	8	0.3%	5.1%	2172	138	8	8	0.4%	5.5%
20.00	1785	175	8	8	0.4%	4.3%	1634	107	8	8	0.5%	7.1%	1798	118	8	8	0.4%	6.4%
21.00	1328	133	12	9	0.9%	6.5%	1361	82	12	9	0.9%	10.4%	1306	100	12	9	1.0%	8.6%
22.00	1021	95	12	9	1.2%	9.1%	1216	60	12	9	1.0%	14.3%	777	55	12	9	1.6%	15.8%
23.00	616	81	5	5	0.8%	6.2%	940	61	5	5	0.5%	8.1%	470	57	5	5	1.1%	8.7%
12 hr	45082	5391	468	435	1.0%	8.1%	38262	2791	764	358	2.0%	12.8%	32322	2178	710	305	2.2%	14.0%
24 hr	59629	7383	1296	507	2.2%	6.9%	50235	4130	1220	430	2.4%	10.4%	42284	3123	1166	377	2.8%	12.1%



Link 6 - M2 West

2021 Baseline + K3 Operational + WKN Construction (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	425	108	3	3	0.7%	2.8%	708	120	3	3	0.4%	2.6%	866	66	3	3	0.4%	4.6%
01.00	323	100	3	3	0.9%	3.1%	469	103	3	3	0.7%	3.0%	530	63	3	3	0.6%	4.9%
02.00	338	114	3	3	0.9%	2.7%	395	96	3	3	0.8%	3.2%	351	48	3	3	0.9%	6.4%
03.00	464	157	3	3	0.7%	1.9%	416	117	3	3	0.7%	2.6%	312	68	3	3	1.0%	4.5%
04.00	1072	263	3	3	0.3%	1.2%	563	148	3	3	0.5%	2.1%	335	59	3	3	0.9%	5.2%
05.00	2827	446	3	3	0.1%	0.7%	1196	210	3	3	0.3%	1.5%	684	95	3	3	0.4%	3.2%
06.00	4311	524	117	3	2.7%	0.6%	1847	266	117	3	6.3%	1.2%	1073	123	117	3	10.9%	2.5%
07.00	5698	541	20	19	0.4%	3.6%	2517	304	20	19	0.8%	6.3%	1403	134	19	18	1.3%	13.3%
08.00	5266	594	22	19	0.4%	3.2%	3228	310	22	19	0.7%	6.2%	1875	138	21	18	1.1%	12.9%
09.00	4366	619	19	19	0.4%	3.0%	3623	308	19	19	0.5%	6.0%	2777	186	17	17	0.6%	9.2%
10.00	4027	606	19	19	0.5%	3.1%	4143	300	19	19	0.4%	6.2%	3757	214	17	17	0.5%	8.0%
11.00	4020	590	19	19	0.5%	3.2%	4593	281	19	19	0.4%	6.6%	4295	242	17	17	0.4%	7.1%
12.00	4370	630	19	19	0.4%	3.0%	4817	258	19	19	0.4%	7.2%	4629	216	17	17	0.4%	7.9%
13.00	4534	652	20	19	0.4%	2.9%	4737	256	19	18	0.4%	6.8%	4395	227	19	18	0.4%	7.7%
14.00	4825	651	20	19	0.4%	2.9%	4362	250	19	18	0.4%	7.0%	4003	225	19	18	0.5%	7.8%
15.00	5332	633	19	19	0.4%	3.0%	4189	234	18	18	0.4%	7.6%	3825	215	18	18	0.5%	8.2%
16.00	6273	511	19	19	0.3%	3.8%	4411	213	126	13	2.8%	6.1%	4276	200	126	13	2.9%	6.5%
17.00	6668	417	22	19	0.3%	4.6%	4142	182	16	13	0.4%	7.1%	3845	188	16	13	0.4%	6.9%
18.00	4988	351	11	11	0.2%	3.2%	3662	169	5	5	0.1%	3.0%	3397	154	5	5	0.2%	3.3%
19.00	3290	269	117	5	3.6%	1.7%	2803	137	5	5	0.2%	3.4%	2805	138	5	5	0.2%	3.4%
20.00	2268	184	5	5	0.2%	2.6%	2026	99	5	5	0.2%	4.8%	2118	100	5	5	0.2%	4.7%
21.00	1664	129	6	5	0.4%	4.1%	1572	80	6	5	0.4%	6.7%	1500	85	6	5	0.4%	6.3%
22.00	1335	109	6	5	0.5%	4.9%	1564	60	6	5	0.4%	8.8%	965	59	6	5	0.7%	9.1%
23.00	796	105	3	3	0.4%	2.9%	1210	66	3	3	0.3%	4.7%	553	76	3	3	0.6%	4.0%
12 hr	60367	6794	230	220	0.4%	3.2%	48427	3066	319	197	0.7%	6.4%	42475	2338	310	188	0.7%	8.0%
24 hr	79481	9302	503	264	0.6%	2.8%	63195	4567	480	241	0.8%	5.3%	54569	3316	471	232	0.9%	7.0%

Link 7 - M2 East

2021 Baseline + K3 Operational + WKN Construction (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.1%	0.3%	649	110	0	0	0.1%	0.3%	795	60	0	0	0.0%	0.6%
01.00	296	92	0	0	0.1%	0.4%	430	94	0	0	0.1%	0.4%	487	57	0	0	0.1%	0.6%
02.00	310	104	0	0	0.1%	0.3%	363	88	0	0	0.1%	0.4%	322	44	0	0	0.1%	0.8%
03.00	425	144	0	0	0.1%	0.2%	382	107	0	0	0.1%	0.3%	287	62	0	0	0.1%	0.5%
04.00	983	241	0	0	0.0%	0.1%	516	136	0	0	0.1%	0.2%	307	53	0	0	0.1%	0.6%
05.00	2574	394	0	0	0.0%	0.1%	1081	177	0	0	0.0%	0.2%	611	72	0	0	0.1%	0.5%
06.00	3904	453	57	0	1.4%	0.1%	1646	217	57	0	3.4%	0.2%	935	85	57	0	6.0%	0.4%
07.00	5178	470	4	3	0.1%	0.6%	2279	254	4	3	0.2%	1.2%	1254	97	3	2	0.2%	2.0%
08.00	4757	519	5	3	0.1%	0.6%	2929	261	5	3	0.2%	1.2%	1685	102	4	2	0.2%	1.9%
09.00	3954	538	3	3	0.1%	0.6%	3284	254	3	3	0.1%	1.2%	2510	142	2	2	0.1%	1.3%
10.00	3640	524	3	3	0.1%	0.6%	3757	244	3	3	0.1%	1.2%	3398	165	2	2	0.1%	1.1%
11.00	3636	510	3	3	0.1%	0.6%	4171	227	3	3	0.1%	1.3%	3892	192	2	2	0.0%	1.0%
12.00	3962	556	3	3	0.1%	0.5%	4383	217	3	3	0.1%	1.4%	4208	178	2	2	0.0%	1.0%
13.00	4103	567	4	3	0.1%	0.5%	4297	206	2	2	0.1%	0.9%	3981	179	2	2	0.1%	1.1%
14.00	4374	571	4	3	0.1%	0.5%	3959	205	2	2	0.1%	0.9%	3634	182	2	2	0.1%	1.0%
15.00	4835	550	3	3	0.1%	0.6%	3796	185	2	2	0.1%	1.0%	3463	168	2	2	0.1%	1.1%
16.00	5702	444	3	3	0.1%	0.7%	3993	176	57	1	1.4%	0.8%	3870	164	57	1	1.5%	0.9%
17.00	6055	359	5	3	0.1%	0.8%	3765	148	3	1	0.1%	0.9%	3498	154	3	1	0.1%	0.9%
18.00	4541	304	2	2	0.0%	0.7%	3333	142	1	1	0.0%	0.4%	3092	128	1	1	0.0%	0.4%
19.00	2976	228	56	1	1.9%	0.2%	2551	107	1	1	0.0%	0.5%	2553	108	1	1	0.0%	0.5%
20.00	2064	153	1	1	0.0%	0.3%	1844	75	1	1	0.0%	0.7%	1928	76	1	1	0.0%	0.7%
21.00	1515	108	1	1	0.1%	0.5%	1432	63	1	1	0.1%	0.9%	1366	68	1	1	0.1%	0.9%
22.00	1222	100	1	1	0.1%	0.6%	1435	55	1	1	0.1%	1.0%	886	54	1	1	0.1%	1.1%
23.00	730	96	0	0	0.0%	0.3%	1111	60	0	0	0.0%	0.6%	507	69	0	0	0.1%	0.5%
12 hr	54736	5912	40	35	0.1%	0.6%	43947	2519	88	27	0.2%	1.1%	38485	1850	81	20	0.2%	1.1%
24 hr	72126	8123	158	40	0.2%	0.5%	57388	3808	150	32	0.3%	0.8%	49470	2659	143	25	0.3%	0.9%

**Link 8 - Swale Way north of Reams Way Junction**

**2021 Baseline + K3 Operational + WKN Construction (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	814	51	0	0	0.0%	0.0%	410	19	0	0	0.0%	0.0%	299	12	0	0	0.0%	0.0%
07.00	1413	84	0	0	0.0%	0.4%	348	22	0	0	0.1%	1.4%	154	12	0	0	0.0%	0.0%
08.00	1498	83	0	0	0.0%	0.4%	450	30	0	0	0.1%	1.1%	153	14	0	0	0.0%	0.0%
09.00	949	98	0	0	0.0%	0.3%	570	31	0	0	0.1%	1.0%	322	13	0	0	0.0%	0.0%
10.00	839	106	0	0	0.0%	0.3%	704	34	0	0	0.0%	0.9%	437	18	0	0	0.0%	0.0%
11.00	830	100	0	0	0.0%	0.3%	770	23	0	0	0.0%	1.4%	529	24	0	0	0.0%	0.0%
12.00	931	102	0	0	0.0%	0.3%	732	25	0	0	0.0%	1.3%	556	19	0	0	0.0%	0.0%
13.00	900	93	0	0	0.0%	0.3%	692	33	0	0	0.0%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	0	0	0.0%	0.3%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1187	86	0	0	0.0%	0.4%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	0	0	0.0%	0.4%	723	20	0	0	0.0%	0.0%	709	17	0	0	0.0%	0.0%
17.00	1298	61	0	0	0.0%	0.5%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	0	0	0.0%	0.5%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	653	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	258	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.1%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13171	1048	4	4	0.0%	0.4%	7299	303	2	2	0.0%	0.6%	5413	184	0	0	0.0%	0.0%
24 hr	16452	1358	4	4	0.0%	0.3%	9270	429	2	2	0.0%	0.4%	6956	280	0	0	0.0%	0.0%

**Link 9 - Swale Way south of Reams Way Junction**

**2021 Baseline + K3 Operational + WKN Construction (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	826	57	0	0	0.0%	0.0%	443	20	0	0	0.0%	0.0%	303	13	0	0	0.0%	0.0%
07.00	1416	85	0	0	0.0%	0.4%	346	27	0	0	0.1%	1.2%	188	12	0	0	0.0%	0.0%
08.00	1431	93	0	0	0.0%	0.3%	484	26	0	0	0.1%	1.2%	155	7	0	0	0.0%	0.0%
09.00	917	105	0	0	0.0%	0.3%	574	35	0	0	0.1%	0.9%	324	15	0	0	0.0%	0.0%
10.00	828	107	0	0	0.0%	0.3%	716	25	0	0	0.0%	1.3%	474	15	0	0	0.0%	0.0%
11.00	850	108	0	0	0.0%	0.3%	775	35	0	0	0.0%	0.9%	506	17	0	0	0.0%	0.0%
12.00	917	98	0	0	0.0%	0.3%	749	34	0	0	0.0%	0.9%	522	15	0	0	0.0%	0.0%
13.00	949	92	0	0	0.0%	0.3%	622	32	0	0	0.0%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	0	0	0.0%	0.3%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	0	0	0.0%	0.3%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1432	81	0	0	0.0%	0.4%	717	19	0	0	0.0%	0.0%	610	14	0	0	0.0%	0.0%
17.00	1369	64	0	0	0.0%	0.5%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	0	0	0.0%	0.5%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	647	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.1%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13206	1090	4	4	0.0%	0.3%	7144	315	2	2	0.0%	0.6%	5030	194	0	0	0.0%	0.0%
24 hr	16470	1399	4	4	0.0%	0.3%	9186	423	2	2	0.0%	0.4%	6511	278	0	0	0.0%	0.0%

**Link 10 - Swale Way south of Ridham Avenue Roundabout**

**2021 Baseline + K3 Operational + WKN Construction (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	566	37	0	0	0.0%	0.0%	198	12	0	0	0.0%	0.0%	100	5	0	0	0.0%	0.0%
07.00	1312	66	0	0	0.0%	0.5%	319	16	0	0	0.1%	2.0%	138	5	0	0	0.0%	0.0%
08.00	1401	70	0	0	0.0%	0.4%	421	17	0	0	0.1%	1.9%	139	4	0	0	0.0%	0.0%
09.00	869	82	0	0	0.0%	0.4%	541	18	0	0	0.1%	1.8%	312	4	0	0	0.0%	0.0%
10.00	741	87	0	0	0.0%	0.4%	681	16	0	0	0.0%	2.0%	404	8	0	0	0.0%	0.0%
11.00	739	75	0	0	0.0%	0.4%	763	11	0	0	0.0%	2.9%	518	9	0	0	0.0%	0.0%
12.00	822	81	0	0	0.0%	0.4%	717	15	0	0	0.0%	2.1%	540	11	0	0	0.0%	0.0%
13.00	833	73	0	0	0.0%	0.4%	658	16	0	0	0.0%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	76	0	0	0.0%	0.4%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	0	0	0.0%	0.4%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	0	0	0.0%	0.5%	533	13	0	0	0.0%	0.0%	522	11	0	0	0.0%	0.0%
17.00	1242	55	0	0	0.0%	0.6%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	49	0	0	0.0%	0.6%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	432	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.1%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12150	859	4	4	0.0%	0.4%	6805	168	2	2	0.0%	1.1%	5024	84	0	0	0.0%	0.0%
24 hr	14589	1052	4	4	0.0%	0.4%	8378	243	2	2	0.0%	0.8%	6219	120	0	0	0.0%	0.0%

**Link 11 - A249 North of Swale Way Junction**

**2021 Baseline + K3 Operational + WKN Construction (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.0%	0.0%	436	30	0	0	0.0%	0.0%
07.00	3011	190	0	0	0.0%	0.1%	1138	81	0	0	0.0%	0.3%	581	26	0	0	0.0%	0.0%
08.00	2710	235	1	0	0.0%	0.1%	1542	83	1	0	0.0%	0.3%	871	31	0	0	0.0%	0.0%
09.00	2053	237	0	0	0.0%	0.1%	1887	76	0	0	0.0%	0.3%	1368	48	0	0	0.0%	0.0%
10.00	1965	234	0	0	0.0%	0.1%	2223	85	0	0	0.0%	0.3%	2020	41	0	0	0.0%	0.0%
11.00	2067	230	0	0	0.0%	0.1%	2492	70	0	0	0.0%	0.4%	2331	38	0	0	0.0%	0.0%
12.00	2199	227	0	0	0.0%	0.1%	2640	62	0	0	0.0%	0.4%	2543	44	0	0	0.0%	0.0%
13.00	2234	221	1	0	0.0%	0.1%	2539	61	0	0	0.0%	0.0%	2416	47	0	0	0.0%	0.0%
14.00	2349	239	1	0	0.0%	0.1%	2405	57	0	0	0.0%	0.0%	2133	42	0	0	0.0%	0.0%
15.00	2574	205	0	0	0.0%	0.1%	2333	45	0	0	0.0%	0.0%	2049	45	0	0	0.0%	0.0%
16.00	3163	169	0	0	0.0%	0.1%	2290	49	0	0	0.0%	0.0%	2114	41	0	0	0.0%	0.0%
17.00	3303	126	1	0	0.0%	0.2%	2188	36	0	0	0.0%	0.0%	1964	39	0	0	0.0%	0.0%
18.00	2284	83	0	0	0.0%	0.3%	1847	36	0	0	0.0%	0.0%	1763	43	0	0	0.0%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	0	0	0.0%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	0	0	0.0%	0.0%	822	25	0	0	0.0%	0.0%	703	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.1%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.1%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29912	2396	4	3	0.0%	0.1%	25525	741	3	1	0.0%	0.2%	22154	485	1	0	0.0%	0.0%
24 hr	37856	3118	5	3	0.0%	0.1%	32339	1116	4	1	0.0%	0.1%	27695	709	2	0	0.0%	0.0%

Link 1 - Swale Way East of B2005 Groveshurst Roundabout

2021 Baseline + K3 Operational + WKN Construction (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	165	56	0	0	0.0%	0.0%	184	50	0	0	0.0%	0.0%	189	20	0	0	0.0%	0.0%
01.00	153	51	0	0	0.0%	0.0%	163	60	0	0	0.0%	0.0%	162	19	0	0	0.0%	0.0%
02.00	169	47	0	0	0.0%	0.0%	133	50	0	0	0.0%	0.0%	102	18	0	0	0.0%	0.0%
03.00	247	71	0	0	0.0%	0.0%	170	51	0	0	0.0%	0.0%	87	20	0	0	0.0%	0.0%
04.00	371	85	0	0	0.0%	0.0%	209	66	0	0	0.0%	0.0%	105	21	0	0	0.0%	0.0%
05.00	950	140	0	0	0.0%	0.0%	535	98	0	0	0.0%	0.0%	294	52	0	0	0.0%	0.0%
06.00	1295	194	407	0	31.4%	0.0%	696	139	407	0	58.4%	0.0%	425	80	407	0	95.6%	0.0%
07.00	1921	248	13	13	0.7%	5.3%	713	160	13	13	1.8%	8.2%	300	86	12	12	3.9%	13.6%
08.00	2236	238	13	13	0.6%	5.5%	748	141	13	13	1.7%	9.3%	322	82	12	12	3.6%	14.2%
09.00	1357	261	12	12	0.9%	4.6%	810	164	12	12	1.5%	7.3%	332	90	11	11	3.2%	11.9%
10.00	1239	282	12	12	1.0%	4.3%	918	165	12	12	1.3%	7.3%	351	98	11	11	3.0%	10.8%
11.00	1265	269	12	12	1.0%	4.5%	947	160	12	12	1.3%	7.5%	571	96	11	11	1.9%	11.1%
12.00	1384	254	12	12	0.9%	4.8%	969	137	12	12	1.2%	8.8%	871	80	11	11	1.2%	13.4%
13.00	1500	276	12	12	0.8%	4.3%	930	132	10	10	1.1%	7.8%	538	93	10	10	1.9%	11.1%
14.00	1481	268	12	12	0.8%	4.4%	910	129	10	10	1.1%	8.0%	551	87	10	10	1.9%	11.8%
15.00	1602	264	12	12	0.8%	4.6%	922	135	11	11	1.2%	7.9%	552	90	11	11	1.9%	11.9%
16.00	1731	221	12	12	0.7%	5.5%	992	114	410	4	41.4%	3.2%	834	71	410	4	49.2%	5.2%
17.00	1844	186	13	13	0.7%	6.8%	839	99	3	3	0.4%	3.4%	695	68	3	3	0.5%	4.9%
18.00	1221	148	13	13	1.0%	8.6%	695	77	3	3	0.5%	4.3%	456	46	3	3	0.7%	7.3%
19.00	903	102	409	3	45.3%	2.6%	555	73	3	3	0.5%	3.6%	521	56	3	3	0.5%	4.7%
20.00	549	98	3	3	0.5%	2.7%	406	74	3	3	0.7%	3.6%	369	49	3	3	0.7%	5.4%
21.00	394	73	4	4	0.9%	5.0%	322	54	4	4	1.1%	6.7%	231	38	4	4	1.6%	9.5%
22.00	309	54	4	4	1.2%	6.8%	285	30	4	4	1.3%	12.1%	314	15	4	4	1.2%	24.4%
23.00	203	51	0	0	0.0%	0.0%	209	34	0	0	0.0%	0.0%	202	15	0	0	0.0%	0.0%
12 hr	18780	2915	148	148	0.8%	5.1%	10393	1612	523	116	5.0%	7.2%	6373	985	514	108	8.1%	10.9%
24 hr	24487	3937	973	160	4.0%	4.1%	14260	2393	942	129	6.6%	5.4%	9372	1388	933	120	10.0%	8.7%

Link 2 - Barge Way North of Swale Roundabout																		
2021 Baseline + K3 Operational + WKN Construction (K3 (49.9 - 75MW) and WKN) Percentage Impact																		
Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	133	40	0	0	0.0%	0.0%	138	36	0	0	0.0%	0.0%	105	31	0	0	0.0%	0.0%
01.00	136	37	0	0	0.0%	0.0%	112	31	0	0	0.0%	0.0%	92	30	0	0	0.0%	0.0%
02.00	174	38	0	0	0.0%	0.0%	135	40	0	0	0.0%	0.0%	93	27	0	0	0.0%	0.0%
03.00	228	56	0	0	0.0%	0.0%	171	48	0	0	0.0%	0.0%	86	30	0	0	0.0%	0.0%
04.00	313	68	0	0	0.0%	0.0%	216	62	0	0	0.0%	0.0%	109	33	0	0	0.0%	0.0%
05.00	550	104	0	0	0.0%	0.0%	351	90	0	0	0.0%	0.0%	199	60	0	0	0.0%	0.0%
06.00	539	143	407	0	75.5%	0.0%	318	128	407	0	128.1%	0.0%	177	82	407	0	229.9%	0.0%
07.00	551	179	13	13	2.4%	7.3%	337	145	13	13	3.9%	9.1%	185	102	12	12	6.3%	11.5%
08.00	558	177	13	13	2.4%	7.4%	321	148	13	13	4.1%	8.9%	197	91	12	12	5.9%	12.8%
09.00	466	195	12	12	2.6%	6.2%	308	154	12	12	3.9%	7.9%	179	102	11	11	5.9%	10.5%
10.00	477	201	12	12	2.5%	6.0%	319	143	12	12	3.8%	8.5%	183	106	11	11	5.8%	10.0%
11.00	434	200	12	12	2.8%	6.1%	290	149	12	12	4.2%	8.1%	208	119	11	11	5.1%	9.0%
12.00	448	184	12	12	2.7%	6.6%	269	111	12	12	4.5%	10.9%	243	90	11	11	4.4%	11.9%
13.00	546	208	12	12	2.2%	5.7%	332	119	10	10	3.1%	8.7%	242	109	10	10	4.3%	9.5%
14.00	541	217	12	12	2.2%	5.4%	302	131	10	10	3.4%	7.9%	214	107	10	10	4.8%	9.7%
15.00	538	215	12	12	2.3%	5.6%	317	140	11	11	3.4%	7.6%	206	110	11	11	5.2%	9.7%
16.00	555	180	12	12	2.2%	6.7%	263	94	410	4	156.3%	3.9%	238	100	410	4	172.2%	3.7%
17.00	541	145	13	13	2.4%	8.8%	230	87	3	3	1.4%	3.8%	211	78	3	3	1.6%	4.3%
18.00	388	114	13	13	3.3%	11.2%	192	58	3	3	1.7%	5.8%	148	52	3	3	2.2%	6.4%
19.00	253	90	409	3	161.6%	2.9%	139	74	3	3	1.9%	3.6%	135	59	3	3	2.0%	4.5%
20.00	188	69	3	3	1.4%	3.8%	111	62	3	3	2.4%	4.3%	104	55	3	3	2.5%	4.9%
21.00	154	52	4	4	2.4%	7.1%	98	45	4	4	3.7%	8.1%	83	39	4	4	4.4%	9.3%
22.00	118	37	4	4	3.1%	9.9%	76	28	4	4	4.8%	13.0%	82	20	4	4	4.5%	18.3%
23.00	148	46	0	0	0.0%	0.0%	82	29	0	0	0.0%	0.0%	79	25	0	0	0.0%	0.0%
12 hr	6044	2214	148	148	2.5%	6.7%	3480	1477	523	116	15.0%	7.9%	2454	1163	514	108	21.0%	9.2%
24 hr	8978	2994	974	161	10.8%	5.4%	5427	2151	942	129	17.4%	6.0%	3797	1655	933	120	24.6%	7.3%



**Link 3 - Barge Way East of Fleet End Roundabout**

**2021 Baseline + K3 Operational + WKN Construction (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	45	23	0	0	0.0%	0.0%	95	19	0	0	0.0%	0.0%	19	15	0	0	0.0%	0.0%
01.00	43	22	0	0	0.0%	0.0%	39	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
02.00	62	24	0	0	0.0%	0.0%	40	30	0	0	0.0%	0.0%	18	15	0	0	0.0%	0.0%
03.00	75	26	0	0	0.0%	0.0%	24	17	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
04.00	116	32	0	0	0.0%	0.0%	43	25	0	0	0.0%	0.0%	25	15	0	0	0.0%	0.0%
05.00	231	41	0	0	0.0%	0.0%	102	22	0	0	0.0%	0.0%	60	16	0	0	0.0%	0.0%
06.00	284	59	407	0	143.2%	0.0%	119	44	407	0	343.0%	0.0%	64	18	407	0	636.4%	0.0%
07.00	337	97	13	13	3.9%	13.5%	161	67	13	13	8.1%	19.5%	93	38	12	12	12.5%	31.0%
08.00	336	105	13	13	3.9%	12.4%	169	71	13	13	7.8%	18.4%	116	35	12	12	10.0%	33.7%
09.00	256	108	12	12	4.7%	11.2%	150	71	12	12	8.1%	17.0%	83	35	11	11	12.9%	30.8%
10.00	245	110	12	12	5.0%	11.0%	138	66	12	12	8.8%	18.3%	83	35	11	11	12.8%	30.8%
11.00	220	107	12	12	5.5%	11.3%	124	52	12	12	9.8%	23.2%	77	37	11	11	13.9%	29.1%
12.00	254	108	12	12	4.8%	11.2%	116	47	12	12	10.5%	25.7%	84	36	11	11	12.7%	29.9%
13.00	292	109	12	12	4.0%	10.8%	139	38	10	10	7.4%	27.4%	119	34	10	10	8.6%	30.7%
14.00	269	119	12	12	4.4%	9.9%	116	37	10	10	8.9%	28.2%	99	34	10	10	10.4%	30.7%
15.00	242	116	12	12	5.0%	10.5%	103	41	11	11	10.3%	26.2%	85	35	11	11	12.5%	30.8%
16.00	274	95	12	12	4.4%	12.8%	104	32	410	4	393.5%	11.6%	98	31	410	4	417.8%	11.9%
17.00	315	75	13	13	4.1%	17.0%	115	29	3	3	2.9%	11.6%	124	28	3	3	2.7%	12.1%
18.00	166	49	13	13	7.7%	25.8%	67	17	3	3	5.0%	19.6%	64	16	3	3	5.2%	20.8%
19.00	93	33	409	3	438.5%	8.0%	52	15	3	3	5.1%	17.7%	55	15	3	3	4.9%	17.7%
20.00	82	32	3	3	3.2%	8.4%	34	17	3	3	7.7%	15.6%	33	15	3	3	8.0%	17.7%
21.00	77	24	4	4	4.8%	15.1%	36	15	4	4	10.0%	24.4%	35	17	4	4	10.3%	21.5%
22.00	50	26	4	4	7.3%	14.1%	21	15	4	4	17.2%	24.4%	28	16	4	4	12.9%	22.9%
23.00	45	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%	22	16	0	0	0.0%	0.0%
12 hr	3206	1199	148	148	4.6%	12.3%	1503	568	523	116	34.8%	20.5%	1126	390	514	108	45.7%	27.6%
24 hr	4409	1564	974	161	22.1%	10.3%	2124	825	942	129	44.4%	15.6%	1518	577	933	120	61.5%	20.8%

**Link 4 - A249 South of Swale Way Junction**

**2021 Baseline + K3 Operational + WKN Construction (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	240	67	0	0	0.0%	0.0%	398	68	0	0	0.0%	0.0%	458	45	0	0	0.0%	0.0%
01.00	174	58	0	0	0.0%	0.0%	267	63	0	0	0.0%	0.0%	296	38	0	0	0.0%	0.0%
02.00	172	65	0	0	0.0%	0.0%	227	73	0	0	0.0%	0.0%	209	42	0	0	0.0%	0.0%
03.00	242	83	0	0	0.0%	0.0%	228	73	0	0	0.0%	0.0%	176	44	0	0	0.0%	0.0%
04.00	553	144	0	0	0.0%	0.0%	310	81	0	0	0.0%	0.0%	201	45	0	0	0.0%	0.0%
05.00	1343	244	0	0	0.0%	0.0%	700	145	0	0	0.0%	0.0%	414	80	0	0	0.0%	0.0%
06.00	2383	308	390	0	16.4%	0.0%	1212	186	390	0	32.1%	0.0%	796	114	390	0	49.0%	0.0%
07.00	3160	370	13	13	0.4%	3.5%	1450	224	13	13	0.9%	5.8%	829	131	12	12	1.4%	8.9%
08.00	2917	375	13	13	0.4%	3.5%	1846	236	13	13	0.7%	5.5%	1143	131	12	12	1.0%	8.9%
09.00	2224	388	12	12	0.5%	3.1%	2079	254	12	12	0.6%	4.7%	1652	172	11	11	0.6%	6.2%
10.00	2133	410	12	12	0.6%	2.9%	2374	243	12	12	0.5%	5.0%	2114	188	11	11	0.5%	5.7%
11.00	2167	400	12	12	0.6%	3.0%	2518	238	12	12	0.5%	5.1%	2337	187	11	11	0.5%	5.7%
12.00	2328	394	12	12	0.5%	3.1%	2710	214	12	12	0.4%	5.6%	2197	159	11	11	0.5%	6.7%
13.00	2364	410	12	12	0.5%	2.9%	2646	212	10	10	0.4%	4.9%	2160	167	10	10	0.5%	6.2%
14.00	2606	411	12	12	0.4%	2.8%	2428	198	10	10	0.4%	5.2%	2179	168	10	10	0.5%	6.1%
15.00	2890	406	12	12	0.4%	3.0%	2378	201	11	11	0.4%	5.3%	2148	180	11	11	0.5%	5.9%
16.00	3415	342	12	12	0.4%	3.5%	2475	169	393	4	15.9%	2.2%	2414	167	393	4	16.3%	2.2%
17.00	3701	303	13	13	0.3%	4.2%	2360	159	3	3	0.1%	2.1%	1973	154	3	3	0.2%	2.2%
18.00	2781	262	13	13	0.5%	4.8%	2038	134	3	3	0.2%	2.5%	1863	129	3	3	0.2%	2.6%
19.00	2013	189	392	3	19.5%	1.4%	1601	123	3	3	0.2%	2.2%	1548	115	3	3	0.2%	2.3%
20.00	1277	142	3	3	0.2%	1.9%	1164	91	3	3	0.2%	2.9%	1279	100	3	3	0.2%	2.7%
21.00	956	109	4	4	0.4%	3.4%	973	71	4	4	0.4%	5.2%	935	83	4	4	0.4%	4.4%
22.00	735	74	4	4	0.5%	5.0%	861	49	4	4	0.4%	7.5%	554	45	4	4	0.7%	8.2%
23.00	440	63	0	0	0.0%	0.0%	664	50	0	0	0.0%	0.0%	336	47	0	0	0.0%	0.0%
12 hr	32685	4472	147	147	0.5%	3.3%	27303	2482	505	116	1.9%	4.7%	23009	1933	497	108	2.2%	5.6%
24 hr	43212	6017	939	160	2.2%	2.7%	35910	3554	908	128	2.5%	3.6%	30210	2731	899	120	3.0%	4.4%

Link 5 - A249 between the A2 and M2

2021 Baseline + K3 Operational + WKN Construction (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	338	91	0	0	0.0%	0.0%	564	93	0	0	0.0%	0.0%	649	60	0	0	0.0%	0.0%
01.00	243	79	0	0	0.0%	0.0%	377	85	0	0	0.0%	0.0%	419	50	0	0	0.0%	0.0%
02.00	241	87	0	0	0.0%	0.0%	320	99	0	0	0.0%	0.0%	295	55	0	0	0.0%	0.0%
03.00	339	113	0	0	0.0%	0.0%	322	100	0	0	0.0%	0.0%	247	58	0	0	0.0%	0.0%
04.00	782	199	0	0	0.0%	0.0%	438	111	0	0	0.0%	0.0%	282	59	0	0	0.0%	0.0%
05.00	1878	328	0	0	0.0%	0.0%	976	190	0	0	0.0%	0.0%	567	97	0	0	0.0%	0.0%
06.00	3269	406	372	0	11.4%	0.0%	1614	237	372	0	23.1%	0.0%	1018	134	372	0	36.6%	0.0%
07.00	4405	470	13	13	0.3%	2.7%	2004	275	13	13	0.6%	4.6%	1137	153	11	11	1.0%	7.3%
08.00	3990	475	13	13	0.3%	2.7%	2566	293	13	13	0.5%	4.3%	1579	154	11	11	0.7%	7.2%
09.00	3078	491	12	12	0.4%	2.4%	2929	315	12	12	0.4%	3.7%	2325	209	10	10	0.4%	4.9%
10.00	2943	519	12	12	0.4%	2.2%	3350	296	12	12	0.3%	3.9%	3012	230	10	10	0.3%	4.4%
11.00	2997	508	12	12	0.4%	2.3%	3568	290	12	12	0.3%	4.0%	3343	229	10	10	0.3%	4.4%
12.00	3225	506	12	12	0.4%	2.3%	3859	265	12	12	0.3%	4.4%	3149	199	10	10	0.3%	5.1%
13.00	3269	524	12	12	0.4%	2.3%	3747	258	11	11	0.3%	4.2%	3071	203	11	11	0.4%	5.3%
14.00	3609	529	12	12	0.3%	2.3%	3450	242	11	11	0.3%	4.5%	3089	209	11	11	0.4%	5.2%
15.00	4037	518	13	13	0.3%	2.4%	3373	242	11	11	0.3%	4.6%	3051	221	11	11	0.4%	5.0%
16.00	4779	433	13	13	0.3%	2.9%	3433	204	376	4	11.0%	1.8%	3350	211	376	4	11.2%	1.7%
17.00	5155	377	12	12	0.2%	3.3%	3351	191	3	3	0.1%	1.7%	2791	193	3	3	0.1%	1.7%
18.00	3918	329	12	12	0.3%	3.7%	2909	164	3	3	0.1%	2.0%	2658	166	3	3	0.1%	2.0%
19.00	2751	244	375	3	13.6%	1.1%	2253	153	3	3	0.1%	1.7%	2177	143	3	3	0.1%	1.9%
20.00	1790	180	3	3	0.1%	1.5%	1639	112	3	3	0.2%	2.4%	1803	123	3	3	0.1%	2.2%
21.00	1337	138	4	4	0.3%	2.6%	1370	87	4	4	0.3%	4.2%	1315	105	4	4	0.3%	3.5%
22.00	1030	100	4	4	0.4%	3.7%	1225	65	4	4	0.3%	5.6%	786	60	4	4	0.5%	6.1%
23.00	621	86	0	0	0.0%	0.0%	945	66	0	0	0.0%	0.0%	475	62	0	0	0.0%	0.0%
12 hr	45404	5680	146	146	0.3%	2.6%	38539	3034	487	115	1.3%	3.8%	32554	2376	478	106	1.5%	4.5%
24 hr	60022	7731	903	159	1.5%	2.1%	50583	4433	872	127	1.7%	2.9%	42587	3381	863	119	2.0%	3.5%

Link 6 - M2 West

2021 Baseline + K3 Operational + WKN Construction (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	428	111	0	0	0.0%	0.0%	711	123	0	0	0.0%	0.0%	869	69	0	0	0.0%	0.0%
01.00	326	103	0	0	0.0%	0.0%	472	106	0	0	0.0%	0.0%	533	66	0	0	0.0%	0.0%
02.00	341	117	0	0	0.0%	0.0%	398	99	0	0	0.0%	0.0%	355	51	0	0	0.0%	0.0%
03.00	467	160	0	0	0.0%	0.0%	419	120	0	0	0.0%	0.0%	315	71	0	0	0.0%	0.0%
04.00	1075	267	0	0	0.0%	0.0%	566	151	0	0	0.0%	0.0%	338	62	0	0	0.0%	0.0%
05.00	2830	449	0	0	0.0%	0.0%	1199	213	0	0	0.0%	0.0%	687	98	0	0	0.0%	0.0%
06.00	4315	527	112	0	2.6%	0.0%	1851	269	112	0	6.1%	0.0%	1077	126	112	0	10.4%	0.0%
07.00	5711	553	7	7	0.1%	1.3%	2530	316	7	7	0.3%	2.3%	1415	145	7	7	0.5%	4.8%
08.00	5282	606	7	7	0.1%	1.2%	3244	322	7	7	0.2%	2.2%	1889	148	7	7	0.4%	4.6%
09.00	4378	631	7	7	0.1%	1.0%	3635	320	7	7	0.2%	2.0%	2788	196	6	6	0.2%	3.2%
10.00	4039	619	7	7	0.2%	1.1%	4155	312	7	7	0.2%	2.1%	3768	225	6	6	0.2%	2.8%
11.00	4032	602	7	7	0.2%	1.1%	4605	293	7	7	0.1%	2.2%	4306	253	6	6	0.1%	2.5%
12.00	4382	642	7	7	0.1%	1.0%	4829	271	7	7	0.1%	2.4%	4639	227	6	6	0.1%	2.8%
13.00	4547	664	7	7	0.2%	1.0%	4749	267	7	7	0.1%	2.5%	4407	238	7	7	0.2%	2.8%
14.00	4838	663	7	7	0.1%	1.0%	4374	261	7	7	0.2%	2.6%	4015	236	7	7	0.2%	2.8%
15.00	5344	645	7	7	0.1%	1.1%	4200	244	7	7	0.2%	2.8%	3835	226	7	7	0.2%	3.0%
16.00	6285	523	7	7	0.1%	1.4%	4422	224	115	2	2.6%	1.0%	4286	211	115	2	2.7%	1.1%
17.00	6683	429	7	7	0.1%	1.6%	4156	192	2	2	0.0%	1.1%	3860	198	2	2	0.1%	1.0%
18.00	4992	355	7	7	0.1%	1.9%	3665	172	2	2	0.1%	1.2%	3400	157	2	2	0.1%	1.3%
19.00	3293	272	114	2	3.5%	0.6%	2806	140	2	2	0.1%	1.2%	2808	141	2	2	0.1%	1.2%
20.00	2271	187	2	2	0.1%	0.9%	2029	102	2	2	0.1%	1.6%	2121	103	2	2	0.1%	1.6%
21.00	1668	132	2	2	0.1%	1.7%	1577	83	2	2	0.1%	2.7%	1505	88	2	2	0.1%	2.6%
22.00	1339	112	2	2	0.2%	2.0%	1568	63	2	2	0.1%	3.6%	970	62	2	2	0.2%	3.7%
23.00	800	108	0	0	0.0%	0.0%	1213	69	0	0	0.0%	0.0%	556	79	0	0	0.0%	0.0%
12 hr	60515	6931	82	82	0.1%	1.2%	48566	3196	179	67	0.4%	2.1%	42608	2461	178	65	0.4%	2.7%
24 hr	79669	9476	315	90	0.4%	1.0%	63375	4733	300	75	0.5%	1.6%	54742	3475	298	73	0.5%	2.1%

Link 7 - M2 East

2021 Baseline + K3 Operational + WKN Construction (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.0%	0.0%	650	110	0	0	0.0%	0.0%	795	61	0	0	0.0%	0.0%
01.00	297	92	0	0	0.0%	0.0%	430	94	0	0	0.0%	0.0%	487	58	0	0	0.0%	0.0%
02.00	311	105	0	0	0.0%	0.0%	363	88	0	0	0.0%	0.0%	323	44	0	0	0.0%	0.0%
03.00	426	144	0	0	0.0%	0.0%	382	108	0	0	0.0%	0.0%	287	63	0	0	0.0%	0.0%
04.00	984	242	0	0	0.0%	0.0%	517	136	0	0	0.0%	0.0%	308	54	0	0	0.0%	0.0%
05.00	2575	395	0	0	0.0%	0.0%	1082	178	0	0	0.0%	0.0%	611	72	0	0	0.0%	0.0%
06.00	3905	453	56	0	1.4%	0.0%	1647	217	56	0	3.4%	0.0%	936	86	56	0	5.9%	0.0%
07.00	5181	472	1	1	0.0%	0.2%	2282	256	1	1	0.0%	0.4%	1256	98	1	1	0.1%	0.8%
08.00	4760	521	1	1	0.0%	0.2%	2933	263	1	1	0.0%	0.4%	1688	104	1	1	0.0%	0.7%
09.00	3956	540	1	1	0.0%	0.2%	3286	256	1	1	0.0%	0.3%	2511	143	1	1	0.0%	0.5%
10.00	3642	526	1	1	0.0%	0.2%	3759	246	1	1	0.0%	0.4%	3399	166	1	1	0.0%	0.4%
11.00	3638	512	1	1	0.0%	0.2%	4173	229	1	1	0.0%	0.4%	3893	193	1	1	0.0%	0.4%
12.00	3964	558	1	1	0.0%	0.2%	4386	219	1	1	0.0%	0.4%	4209	180	1	1	0.0%	0.4%
13.00	4106	569	1	1	0.0%	0.2%	4299	207	1	1	0.0%	0.4%	3983	180	1	1	0.0%	0.4%
14.00	4376	573	1	1	0.0%	0.2%	3961	206	1	1	0.0%	0.4%	3636	183	1	1	0.0%	0.4%
15.00	4837	552	1	1	0.0%	0.2%	3797	186	1	1	0.0%	0.4%	3464	169	1	1	0.0%	0.4%
16.00	5704	446	1	1	0.0%	0.2%	3994	177	56	0	1.4%	0.1%	3872	165	56	0	1.4%	0.1%
17.00	6058	361	1	1	0.0%	0.3%	3768	150	0	0	0.0%	0.1%	3501	155	0	0	0.0%	0.1%
18.00	4542	305	1	1	0.0%	0.3%	3333	142	0	0	0.0%	0.2%	3093	128	0	0	0.0%	0.2%
19.00	2976	228	56	0	1.9%	0.1%	2552	107	0	0	0.0%	0.2%	2553	108	0	0	0.0%	0.2%
20.00	2064	154	0	0	0.0%	0.1%	1844	76	0	0	0.0%	0.2%	1928	76	0	0	0.0%	0.2%
21.00	1516	108	0	0	0.0%	0.2%	1433	63	0	0	0.0%	0.4%	1367	68	0	0	0.0%	0.4%
22.00	1223	100	0	0	0.0%	0.2%	1436	55	0	0	0.0%	0.4%	887	54	0	0	0.0%	0.5%
23.00	731	96	0	0	0.0%	0.0%	1111	60	0	0	0.0%	0.0%	508	70	0	0	0.0%	0.0%
12 hr	54766	5936	11	11	0.0%	0.2%	43971	2538	64	8	0.1%	0.3%	38503	1863	63	7	0.2%	0.4%
24 hr	72162	8151	123	12	0.2%	0.1%	57418	3831	120	9	0.2%	0.2%	49494	2676	119	8	0.2%	0.3%

**Link 8 - Swale Way north of Reams Way Junction**

**2021 Baseline + K3 Operational + WKN Construction (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	814	51	0	0	0.0%	0.0%	410	19	0	0	0.0%	0.0%	299	12	0	0	0.0%	0.0%
07.00	1414	85	0	0	0.0%	0.0%	349	22	0	0	0.0%	0.0%	154	12	0	0	0.0%	0.0%
08.00	1499	83	0	0	0.0%	0.0%	450	30	0	0	0.0%	0.0%	153	14	0	0	0.0%	0.0%
09.00	950	99	0	0	0.0%	0.0%	571	31	0	0	0.0%	0.0%	322	13	0	0	0.0%	0.0%
10.00	839	106	0	0	0.0%	0.0%	704	34	0	0	0.0%	0.0%	437	18	0	0	0.0%	0.0%
11.00	830	100	0	0	0.0%	0.0%	770	23	0	0	0.0%	0.0%	529	24	0	0	0.0%	0.0%
12.00	932	102	0	0	0.0%	0.0%	732	25	0	0	0.0%	0.0%	556	19	0	0	0.0%	0.0%
13.00	900	93	0	0	0.0%	0.0%	692	33	0	0	0.0%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	0	0	0.0%	0.0%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1188	86	0	0	0.0%	0.0%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	0	0	0.0%	0.0%	723	20	0	0	0.0%	0.0%	709	17	0	0	0.0%	0.0%
17.00	1299	61	0	0	0.0%	0.0%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	0	0	0.0%	0.0%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	653	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	259	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.0%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13175	1052	0	0	0.0%	0.0%	7301	304	0	0	0.0%	0.0%	5413	184	0	0	0.0%	0.0%
24 hr	16456	1362	0	0	0.0%	0.0%	9273	431	0	0	0.0%	0.0%	6957	280	0	0	0.0%	0.0%

**Link 9 - Swale Way south of Reams Way Junction**

**2021 Baseline + K3 Operational + WKN Construction (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	826	57	0	0	0.0%	0.0%	443	20	0	0	0.0%	0.0%	303	13	0	0	0.0%	0.0%
07.00	1416	85	0	0	0.0%	0.0%	347	27	0	0	0.0%	0.0%	188	12	0	0	0.0%	0.0%
08.00	1432	94	0	0	0.0%	0.0%	484	26	0	0	0.0%	0.0%	155	7	0	0	0.0%	0.0%
09.00	917	105	0	0	0.0%	0.0%	575	35	0	0	0.0%	0.0%	324	15	0	0	0.0%	0.0%
10.00	828	107	0	0	0.0%	0.0%	716	25	0	0	0.0%	0.0%	474	15	0	0	0.0%	0.0%
11.00	850	108	0	0	0.0%	0.0%	775	35	0	0	0.0%	0.0%	506	17	0	0	0.0%	0.0%
12.00	917	98	0	0	0.0%	0.0%	749	34	0	0	0.0%	0.0%	522	15	0	0	0.0%	0.0%
13.00	950	92	0	0	0.0%	0.0%	622	32	0	0	0.0%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	0	0	0.0%	0.0%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	0	0	0.0%	0.0%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1433	82	0	0	0.0%	0.0%	717	19	0	0	0.0%	0.0%	610	14	0	0	0.0%	0.0%
17.00	1370	64	0	0	0.0%	0.0%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	0	0	0.0%	0.0%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	647	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.0%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13210	1093	0	0	0.0%	0.0%	7146	316	0	0	0.0%	0.0%	5030	194	0	0	0.0%	0.0%
24 hr	16474	1403	0	0	0.0%	0.0%	9189	425	0	0	0.0%	0.0%	6512	278	0	0	0.0%	0.0%

**Link 10 - Swale Way south of Ridham Avenue Roundabout**

**2021 Baseline + K3 Operational + WKN Construction (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	566	37	0	0	0.0%	0.0%	198	12	0	0	0.0%	0.0%	100	5	0	0	0.0%	0.0%
07.00	1313	67	0	0	0.0%	0.0%	319	16	0	0	0.0%	0.0%	138	5	0	0	0.0%	0.0%
08.00	1401	71	0	0	0.0%	0.0%	421	17	0	0	0.0%	0.0%	139	4	0	0	0.0%	0.0%
09.00	869	83	0	0	0.0%	0.0%	542	18	0	0	0.0%	0.0%	312	4	0	0	0.0%	0.0%
10.00	741	88	0	0	0.0%	0.0%	681	16	0	0	0.0%	0.0%	404	8	0	0	0.0%	0.0%
11.00	740	75	0	0	0.0%	0.0%	764	11	0	0	0.0%	0.0%	518	9	0	0	0.0%	0.0%
12.00	823	81	0	0	0.0%	0.0%	717	15	0	0	0.0%	0.0%	540	11	0	0	0.0%	0.0%
13.00	833	74	0	0	0.0%	0.0%	658	16	0	0	0.0%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	77	0	0	0.0%	0.0%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	0	0	0.0%	0.0%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	0	0	0.0%	0.0%	533	13	0	0	0.0%	0.0%	522	11	0	0	0.0%	0.0%
17.00	1242	56	0	0	0.0%	0.0%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	50	0	0	0.0%	0.0%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	432	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.0%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12154	863	0	0	0.0%	0.0%	6807	170	0	0	0.0%	0.0%	5024	84	0	0	0.0%	0.0%
24 hr	14593	1055	0	0	0.0%	0.0%	8380	245	0	0	0.0%	0.0%	6219	120	0	0	0.0%	0.0%



**Link 11 - A249 North of Swale Way Junction**

**2021 Baseline + K3 Operational + WKN Construction (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact		2021 Baseline		Development + Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.0%	0.0%	436	30	0	0	0.0%	0.0%
07.00	3012	191	0	0	0.0%	0.0%	1139	82	0	0	0.0%	0.0%	581	26	0	0	0.0%	0.0%
08.00	2710	235	0	0	0.0%	0.0%	1543	83	0	0	0.0%	0.0%	872	31	0	0	0.0%	0.0%
09.00	2053	238	0	0	0.0%	0.0%	1887	76	0	0	0.0%	0.1%	1368	48	0	0	0.0%	0.0%
10.00	1965	234	0	0	0.0%	0.0%	2223	85	0	0	0.0%	0.0%	2020	41	0	0	0.0%	0.0%
11.00	2067	230	0	0	0.0%	0.0%	2492	71	0	0	0.0%	0.1%	2331	38	0	0	0.0%	0.0%
12.00	2199	227	0	0	0.0%	0.0%	2640	63	0	0	0.0%	0.1%	2543	44	0	0	0.0%	0.0%
13.00	2235	222	0	0	0.0%	0.0%	2540	61	0	0	0.0%	0.0%	2417	47	0	0	0.0%	0.0%
14.00	2350	239	0	0	0.0%	0.0%	2406	57	0	0	0.0%	0.0%	2134	42	0	0	0.0%	0.0%
15.00	2574	205	0	0	0.0%	0.0%	2333	45	0	0	0.0%	0.0%	2049	45	0	0	0.0%	0.0%
16.00	3164	170	0	0	0.0%	0.0%	2290	49	0	0	0.0%	0.0%	2114	41	0	0	0.0%	0.0%
17.00	3303	126	0	0	0.0%	0.0%	2189	36	0	0	0.0%	0.0%	1964	39	0	0	0.0%	0.0%
18.00	2284	83	0	0	0.0%	0.0%	1847	36	0	0	0.0%	0.0%	1763	43	0	0	0.0%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	0	0	0.0%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	0	0	0.0%	0.0%	822	25	0	0	0.0%	0.0%	704	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.0%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.0%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29916	2398	0	0	0.0%	0.0%	25528	742	0	0	0.0%	0.0%	22156	485	0	0	0.0%	0.0%
24 hr	37860	3121	0	0	0.0%	0.0%	32342	1117	0	0	0.0%	0.0%	27697	709	0	0	0.0%	0.0%

**Link 1 - Swale Way East of B2005 Groveshurst Roundabout**

**2021 Baseline + WKN Construction (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Construction		% Impact		2021 Baseline		Construction		% Impact		2021 Baseline		Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	165	56	0	0	0.0%	0.0%	184	50	0	0	0.0%	0.0%	189	20	0	0	0.0%	0.0%
01.00	153	51	0	0	0.0%	0.0%	163	60	0	0	0.0%	0.0%	162	19	0	0	0.0%	0.0%
02.00	169	47	0	0	0.0%	0.0%	133	50	0	0	0.0%	0.0%	102	18	0	0	0.0%	0.0%
03.00	247	71	0	0	0.0%	0.0%	170	51	0	0	0.0%	0.0%	87	20	0	0	0.0%	0.0%
04.00	371	85	0	0	0.0%	0.0%	209	66	0	0	0.0%	0.0%	105	21	0	0	0.0%	0.0%
05.00	950	140	0	0	0.0%	0.0%	535	98	0	0	0.0%	0.0%	294	52	0	0	0.0%	0.0%
06.00	1295	194	407	0	31.4%	0.0%	696	139	407	0	58.4%	0.0%	425	80	407	0	95.6%	0.0%
07.00	1921	248	8	8	0.4%	3.2%	713	160	8	8	1.1%	5.0%	300	86	8	8	2.7%	9.3%
08.00	2236	238	8	8	0.4%	3.4%	748	141	8	8	1.1%	5.7%	322	82	8	8	2.5%	9.8%
09.00	1357	261	8	8	0.6%	3.1%	810	164	8	8	1.0%	4.9%	332	90	8	8	2.4%	8.9%
10.00	1239	282	8	8	0.6%	2.8%	918	165	8	8	0.9%	4.9%	351	98	8	8	2.3%	8.1%
11.00	1265	269	8	8	0.6%	3.0%	947	160	8	8	0.8%	5.0%	571	96	8	8	1.4%	8.3%
12.00	1384	254	8	8	0.6%	3.2%	969	137	8	8	0.8%	5.8%	871	80	8	8	0.9%	10.0%
13.00	1500	276	7	7	0.5%	2.5%	930	132	7	7	0.8%	5.3%	538	93	7	7	1.3%	7.6%
14.00	1481	268	7	7	0.5%	2.6%	910	129	7	7	0.8%	5.4%	551	87	7	7	1.3%	8.0%
15.00	1602	264	7	7	0.4%	2.6%	922	135	7	7	0.8%	5.2%	552	90	7	7	1.3%	7.8%
16.00	1731	221	7	7	0.4%	3.2%	992	114	407	0	41.0%	0.0%	834	71	407	0	48.8%	0.0%
17.00	1844	186	8	8	0.4%	4.3%	839	99	0	0	0.0%	0.0%	695	68	0	0	0.0%	0.0%
18.00	1221	148	8	8	0.7%	5.4%	695	77	0	0	0.0%	0.0%	456	46	0	0	0.0%	0.0%
19.00	903	102	407	0	45.0%	0.0%	555	73	0	0	0.0%	0.0%	521	56	0	0	0.0%	0.0%
20.00	549	98	0	0	0.0%	0.0%	406	74	0	0	0.0%	0.0%	369	49	0	0	0.0%	0.0%
21.00	394	73	0	0	0.0%	0.0%	322	54	0	0	0.0%	0.0%	231	38	0	0	0.0%	0.0%
22.00	309	54	0	0	0.0%	0.0%	285	30	0	0	0.0%	0.0%	314	15	0	0	0.0%	0.0%
23.00	203	51	0	0	0.0%	0.0%	209	34	0	0	0.0%	0.0%	202	15	0	0	0.0%	0.0%
12 hr	18780	2915	92	92	0.5%	3.2%	10393	1612	476	69	4.6%	4.3%	6373	985	476	69	7.5%	7.0%
24 hr	24487	3937	905	92	3.7%	2.3%	14260	2393	882	69	6.2%	2.9%	9372	1388	882	69	9.4%	5.0%

**Link 2 - Barge Way North of Swale Roundabout**

**2021 Baseline + WKN Construction (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Construction		% Impact		2021 Baseline		Construction		% Impact		2021 Baseline		Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	133	40	0	0	0.0%	0.0%	138	36	0	0	0.0%	0.0%	105	31	0	0	0.0%	0.0%
01.00	136	37	0	0	0.0%	0.0%	112	31	0	0	0.0%	0.0%	92	30	0	0	0.0%	0.0%
02.00	174	38	0	0	0.0%	0.0%	135	40	0	0	0.0%	0.0%	93	27	0	0	0.0%	0.0%
03.00	228	56	0	0	0.0%	0.0%	171	48	0	0	0.0%	0.0%	86	30	0	0	0.0%	0.0%
04.00	313	68	0	0	0.0%	0.0%	216	62	0	0	0.0%	0.0%	109	33	0	0	0.0%	0.0%
05.00	550	104	0	0	0.0%	0.0%	351	90	0	0	0.0%	0.0%	199	60	0	0	0.0%	0.0%
06.00	539	143	407	0	75.5%	0.0%	318	128	407	0	128.1%	0.0%	177	82	407	0	229.9%	0.0%
07.00	551	179	8	8	1.5%	4.5%	337	145	8	8	2.4%	5.5%	185	102	8	8	4.3%	7.9%
08.00	558	177	8	8	1.4%	4.5%	321	148	8	8	2.5%	5.4%	197	91	8	8	4.1%	8.8%
09.00	466	195	8	8	1.7%	4.1%	308	154	8	8	2.6%	5.2%	179	102	8	8	4.5%	7.9%
10.00	477	201	8	8	1.7%	4.0%	319	143	8	8	2.5%	5.6%	183	106	8	8	4.4%	7.5%
11.00	434	200	8	8	1.8%	4.0%	290	149	8	8	2.8%	5.4%	208	119	8	8	3.9%	6.7%
12.00	448	184	8	8	1.8%	4.4%	269	111	8	8	3.0%	7.2%	243	90	8	8	3.3%	8.9%
13.00	546	208	7	7	1.3%	3.4%	332	119	7	7	2.1%	5.9%	242	109	7	7	2.9%	6.4%
14.00	541	217	7	7	1.3%	3.2%	302	131	7	7	2.3%	5.4%	214	107	7	7	3.3%	6.6%
15.00	538	215	7	7	1.3%	3.3%	317	140	7	7	2.2%	5.0%	206	110	7	7	3.4%	6.4%
16.00	555	180	7	7	1.3%	3.9%	263	94	407	0	154.9%	0.0%	238	100	407	0	170.7%	0.0%
17.00	541	145	8	8	1.5%	5.5%	230	87	0	0	0.0%	0.0%	211	78	0	0	0.0%	0.0%
18.00	388	114	8	8	2.1%	7.0%	192	58	0	0	0.0%	0.0%	148	52	0	0	0.0%	0.0%
19.00	253	90	407	0	160.6%	0.0%	139	74	0	0	0.0%	0.0%	135	59	0	0	0.0%	0.0%
20.00	188	69	0	0	0.0%	0.0%	111	62	0	0	0.0%	0.0%	104	55	0	0	0.0%	0.0%
21.00	154	52	0	0	0.0%	0.0%	98	45	0	0	0.0%	0.0%	83	39	0	0	0.0%	0.0%
22.00	118	37	0	0	0.0%	0.0%	76	28	0	0	0.0%	0.0%	82	20	0	0	0.0%	0.0%
23.00	148	46	0	0	0.0%	0.0%	82	29	0	0	0.0%	0.0%	79	25	0	0	0.0%	0.0%
12 hr	6044	2214	92	92	1.5%	4.2%	3480	1477	476	69	13.7%	4.7%	2454	1163	476	69	19.4%	5.9%
24 hr	8978	2994	905	92	10.1%	3.1%	5427	2151	882	69	16.3%	3.2%	3797	1655	882	69	23.2%	4.2%

**Link 3 - Barge Way East of Fleet End Roundabout**

**2021 Baseline + WKN Construction (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Construction		% Impact		2021 Baseline		Construction		% Impact		2021 Baseline		Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	45	23	0	0	0.0%	0.0%	95	19	0	0	0.0%	0.0%	19	15	0	0	0.0%	0.0%
01.00	43	22	0	0	0.0%	0.0%	39	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
02.00	62	24	0	0	0.0%	0.0%	40	30	0	0	0.0%	0.0%	18	15	0	0	0.0%	0.0%
03.00	75	26	0	0	0.0%	0.0%	24	17	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
04.00	116	32	0	0	0.0%	0.0%	43	25	0	0	0.0%	0.0%	25	15	0	0	0.0%	0.0%
05.00	231	41	0	0	0.0%	0.0%	102	22	0	0	0.0%	0.0%	60	16	0	0	0.0%	0.0%
06.00	284	59	407	0	143.2%	0.0%	119	44	407	0	343.0%	0.0%	64	18	407	0	636.4%	0.0%
07.00	337	97	8	8	2.4%	8.2%	161	67	8	8	5.0%	11.9%	93	38	8	8	8.6%	21.3%
08.00	336	105	8	8	2.4%	7.6%	169	71	8	8	4.7%	11.2%	116	35	8	8	6.9%	23.1%
09.00	256	108	8	8	3.1%	7.4%	150	71	8	8	5.3%	11.2%	83	35	8	8	9.7%	23.1%
10.00	245	110	8	8	3.3%	7.2%	138	66	8	8	5.8%	12.1%	83	35	8	8	9.6%	23.1%
11.00	220	107	8	8	3.6%	7.5%	124	52	8	8	6.5%	15.3%	77	37	8	8	10.4%	21.8%
12.00	254	108	8	8	3.2%	7.4%	116	47	8	8	6.9%	17.0%	84	36	8	8	9.5%	22.5%
13.00	292	109	7	7	2.4%	6.4%	139	38	7	7	5.0%	18.6%	119	34	7	7	5.9%	20.8%
14.00	269	119	7	7	2.6%	5.9%	116	37	7	7	6.0%	19.1%	99	34	7	7	7.1%	20.8%
15.00	242	116	7	7	2.9%	6.0%	103	41	7	7	6.8%	17.2%	85	35	7	7	8.2%	20.2%
16.00	274	95	7	7	2.6%	7.4%	104	32	407	0	390.0%	0.0%	98	31	407	0	414.1%	0.0%
17.00	315	75	8	8	2.5%	10.6%	115	29	0	0	0.0%	0.0%	124	28	0	0	0.0%	0.0%
18.00	166	49	8	8	4.8%	16.2%	67	17	0	0	0.0%	0.0%	64	16	0	0	0.0%	0.0%
19.00	93	33	407	0	435.6%	0.0%	52	15	0	0	0.0%	0.0%	55	15	0	0	0.0%	0.0%
20.00	82	32	0	0	0.0%	0.0%	34	17	0	0	0.0%	0.0%	33	15	0	0	0.0%	0.0%
21.00	77	24	0	0	0.0%	0.0%	36	15	0	0	0.0%	0.0%	35	17	0	0	0.0%	0.0%
22.00	50	26	0	0	0.0%	0.0%	21	15	0	0	0.0%	0.0%	28	16	0	0	0.0%	0.0%
23.00	45	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%	22	16	0	0	0.0%	0.0%
12 hr	3206	1199	92	92	2.9%	7.7%	1503	568	476	69	31.7%	12.1%	1126	390	476	69	42.3%	17.7%
24 hr	4409	1564	905	92	20.5%	5.9%	2124	825	882	69	41.5%	8.4%	1518	577	882	69	58.1%	12.0%

**Link 4 - A249 South of Swale Way Junction**

**2021 Baseline + WKN Construction (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Construction		% Impact		2021 Baseline		Construction		% Impact		2021 Baseline		Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	240	67	0	0	0.0%	0.0%	398	68	0	0	0.0%	0.0%	458	45	0	0	0.0%	0.0%
01.00	174	58	0	0	0.0%	0.0%	267	63	0	0	0.0%	0.0%	296	38	0	0	0.0%	0.0%
02.00	172	65	0	0	0.0%	0.0%	227	73	0	0	0.0%	0.0%	209	42	0	0	0.0%	0.0%
03.00	242	83	0	0	0.0%	0.0%	228	73	0	0	0.0%	0.0%	176	44	0	0	0.0%	0.0%
04.00	553	144	0	0	0.0%	0.0%	310	81	0	0	0.0%	0.0%	201	45	0	0	0.0%	0.0%
05.00	1343	244	0	0	0.0%	0.0%	700	145	0	0	0.0%	0.0%	414	80	0	0	0.0%	0.0%
06.00	2383	308	390	0	16.4%	0.0%	1212	186	390	0	32.1%	0.0%	796	114	390	0	49.0%	0.0%
07.00	3160	370	8	8	0.3%	2.2%	1450	224	8	8	0.6%	3.6%	829	131	8	8	1.0%	6.1%
08.00	2917	375	8	8	0.3%	2.1%	1846	236	8	8	0.4%	3.4%	1143	131	8	8	0.7%	6.1%
09.00	2224	388	8	8	0.4%	2.1%	2079	254	8	8	0.4%	3.1%	1652	172	8	8	0.5%	4.7%
10.00	2133	410	8	8	0.4%	2.0%	2374	243	8	8	0.3%	3.3%	2114	188	8	8	0.4%	4.2%
11.00	2167	400	8	8	0.4%	2.0%	2518	238	8	8	0.3%	3.4%	2337	187	8	8	0.3%	4.3%
12.00	2328	394	8	8	0.3%	2.0%	2710	214	8	8	0.3%	3.7%	2197	159	8	8	0.4%	5.0%
13.00	2364	410	7	7	0.3%	1.7%	2646	212	7	7	0.3%	3.3%	2160	167	7	7	0.3%	4.2%
14.00	2606	411	7	7	0.3%	1.7%	2428	198	7	7	0.3%	3.5%	2179	168	7	7	0.3%	4.2%
15.00	2890	406	7	7	0.2%	1.7%	2378	201	7	7	0.3%	3.5%	2148	180	7	7	0.3%	3.9%
16.00	3415	342	7	7	0.2%	2.0%	2475	169	390	0	15.7%	0.0%	2414	167	390	0	16.1%	0.0%
17.00	3701	303	8	8	0.2%	2.6%	2360	159	0	0	0.0%	0.0%	1973	154	0	0	0.0%	0.0%
18.00	2781	262	8	8	0.3%	3.1%	2038	134	0	0	0.0%	0.0%	1863	129	0	0	0.0%	0.0%
19.00	2013	189	390	0	19.4%	0.0%	1601	123	0	0	0.0%	0.0%	1548	115	0	0	0.0%	0.0%
20.00	1277	142	0	0	0.0%	0.0%	1164	91	0	0	0.0%	0.0%	1279	100	0	0	0.0%	0.0%
21.00	956	109	0	0	0.0%	0.0%	973	71	0	0	0.0%	0.0%	935	83	0	0	0.0%	0.0%
22.00	735	74	0	0	0.0%	0.0%	861	49	0	0	0.0%	0.0%	554	45	0	0	0.0%	0.0%
23.00	440	63	0	0	0.0%	0.0%	664	50	0	0	0.0%	0.0%	336	47	0	0	0.0%	0.0%
12 hr	32685	4472	92	92	0.3%	2.1%	27303	2482	459	69	1.7%	2.8%	23009	1933	459	69	2.0%	3.6%
24 hr	43212	6017	871	92	2.0%	1.5%	35910	3554	848	69	2.4%	1.9%	30210	2731	848	69	2.8%	2.5%

**Link 5 - A249 between the A2 and M2**

**2021 Baseline + WKN Construction (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Construction		% Impact		2021 Baseline		Construction		% Impact		2021 Baseline		Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	338	91	0	0	0.0%	0.0%	564	93	0	0	0.0%	0.0%	649	60	0	0	0.0%	0.0%
01.00	243	79	0	0	0.0%	0.0%	377	85	0	0	0.0%	0.0%	419	50	0	0	0.0%	0.0%
02.00	241	87	0	0	0.0%	0.0%	320	99	0	0	0.0%	0.0%	295	55	0	0	0.0%	0.0%
03.00	339	113	0	0	0.0%	0.0%	322	100	0	0	0.0%	0.0%	247	58	0	0	0.0%	0.0%
04.00	782	199	0	0	0.0%	0.0%	438	111	0	0	0.0%	0.0%	282	59	0	0	0.0%	0.0%
05.00	1878	328	0	0	0.0%	0.0%	976	190	0	0	0.0%	0.0%	567	97	0	0	0.0%	0.0%
06.00	3269	406	372	0	11.4%	0.0%	1614	237	372	0	23.1%	0.0%	1018	134	372	0	36.6%	0.0%
07.00	4405	470	8	8	0.2%	1.6%	2004	275	8	8	0.4%	2.7%	1137	153	8	8	0.7%	4.9%
08.00	3990	475	8	8	0.2%	1.6%	2566	293	8	8	0.3%	2.6%	1579	154	8	8	0.5%	4.9%
09.00	3078	491	8	8	0.2%	1.5%	2929	315	8	8	0.3%	2.4%	2325	209	8	8	0.3%	3.6%
10.00	2943	519	8	8	0.3%	1.4%	3350	296	8	8	0.2%	2.5%	3012	230	8	8	0.2%	3.3%
11.00	2997	508	8	8	0.3%	1.5%	3568	290	8	8	0.2%	2.6%	3343	229	8	8	0.2%	3.3%
12.00	3225	506	8	8	0.2%	1.5%	3859	265	8	8	0.2%	2.8%	3149	199	8	8	0.2%	3.8%
13.00	3269	524	8	8	0.2%	1.4%	3747	258	8	8	0.2%	2.9%	3071	203	8	8	0.2%	3.7%
14.00	3609	529	8	8	0.2%	1.4%	3450	242	8	8	0.2%	3.1%	3089	209	8	8	0.2%	3.6%
15.00	4037	518	8	8	0.2%	1.4%	3373	242	8	8	0.2%	3.1%	3051	221	8	8	0.2%	3.4%
16.00	4779	433	8	8	0.2%	1.7%	3433	204	372	0	10.8%	0.0%	3350	211	372	0	11.1%	0.0%
17.00	5155	377	8	8	0.1%	2.0%	3351	191	0	0	0.0%	0.0%	2791	193	0	0	0.0%	0.0%
18.00	3918	329	8	8	0.2%	2.3%	2909	164	0	0	0.0%	0.0%	2658	166	0	0	0.0%	0.0%
19.00	2751	244	372	0	13.5%	0.0%	2253	153	0	0	0.0%	0.0%	2177	143	0	0	0.0%	0.0%
20.00	1790	180	0	0	0.0%	0.0%	1639	112	0	0	0.0%	0.0%	1803	123	0	0	0.0%	0.0%
21.00	1337	138	0	0	0.0%	0.0%	1370	87	0	0	0.0%	0.0%	1315	105	0	0	0.0%	0.0%
22.00	1030	100	0	0	0.0%	0.0%	1225	65	0	0	0.0%	0.0%	786	60	0	0	0.0%	0.0%
23.00	621	86	0	0	0.0%	0.0%	945	66	0	0	0.0%	0.0%	475	62	0	0	0.0%	0.0%
12 hr	45404	5680	90	90	0.2%	1.6%	38539	3034	440	68	1.1%	2.2%	32554	2376	440	68	1.4%	2.8%
24 hr	60022	7731	835	90	1.4%	1.2%	50583	4433	812	68	1.6%	1.5%	42587	3381	812	68	1.9%	2.0%

**Link 6 - M2 West**

**2021 Baseline + WKN Construction (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Construction		% Impact		2021 Baseline		Construction		% Impact		2021 Baseline		Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	428	111	0	0	0.0%	0.0%	711	123	0	0	0.0%	0.0%	869	69	0	0	0.0%	0.0%
01.00	326	103	0	0	0.0%	0.0%	472	106	0	0	0.0%	0.0%	533	66	0	0	0.0%	0.0%
02.00	341	117	0	0	0.0%	0.0%	398	99	0	0	0.0%	0.0%	355	51	0	0	0.0%	0.0%
03.00	467	160	0	0	0.0%	0.0%	419	120	0	0	0.0%	0.0%	315	71	0	0	0.0%	0.0%
04.00	1075	267	0	0	0.0%	0.0%	566	151	0	0	0.0%	0.0%	338	62	0	0	0.0%	0.0%
05.00	2830	449	0	0	0.0%	0.0%	1199	213	0	0	0.0%	0.0%	687	98	0	0	0.0%	0.0%
06.00	4315	527	112	0	2.6%	0.0%	1851	269	112	0	6.1%	0.0%	1077	126	112	0	10.4%	0.0%
07.00	5711	553	5	5	0.1%	0.8%	2530	316	5	5	0.2%	1.5%	1415	145	5	5	0.3%	3.2%
08.00	5282	606	5	5	0.1%	0.8%	3244	322	5	5	0.1%	1.4%	1889	148	5	5	0.2%	3.1%
09.00	4378	631	5	5	0.1%	0.7%	3635	320	5	5	0.1%	1.4%	2788	196	5	5	0.2%	2.4%
10.00	4039	619	5	5	0.1%	0.7%	4155	312	5	5	0.1%	1.5%	3768	225	5	5	0.1%	2.1%
11.00	4032	602	5	5	0.1%	0.8%	4605	293	5	5	0.1%	1.6%	4306	253	5	5	0.1%	1.8%
12.00	4382	642	5	5	0.1%	0.7%	4829	271	5	5	0.1%	1.7%	4639	227	5	5	0.1%	2.0%
13.00	4547	664	5	5	0.1%	0.7%	4749	267	5	5	0.1%	1.7%	4407	238	5	5	0.1%	1.9%
14.00	4838	663	5	5	0.1%	0.7%	4374	261	5	5	0.1%	1.8%	4015	236	5	5	0.1%	2.0%
15.00	5344	645	5	5	0.1%	0.7%	4200	244	5	5	0.1%	1.9%	3835	226	5	5	0.1%	2.0%
16.00	6285	523	5	5	0.1%	0.9%	4422	224	112	0	2.5%	0.0%	4286	211	112	0	2.6%	0.0%
17.00	6683	429	5	5	0.1%	1.1%	4156	192	0	0	0.0%	0.0%	3860	198	0	0	0.0%	0.0%
18.00	4992	355	5	5	0.1%	1.3%	3665	172	0	0	0.0%	0.0%	3400	157	0	0	0.0%	0.0%
19.00	3293	272	112	0	3.4%	0.0%	2806	140	0	0	0.0%	0.0%	2808	141	0	0	0.0%	0.0%
20.00	2271	187	0	0	0.0%	0.0%	2029	102	0	0	0.0%	0.0%	2121	103	0	0	0.0%	0.0%
21.00	1668	132	0	0	0.0%	0.0%	1577	83	0	0	0.0%	0.0%	1505	88	0	0	0.0%	0.0%
22.00	1339	112	0	0	0.0%	0.0%	1568	63	0	0	0.0%	0.0%	970	62	0	0	0.0%	0.0%
23.00	800	108	0	0	0.0%	0.0%	1213	69	0	0	0.0%	0.0%	556	79	0	0	0.0%	0.0%
12 hr	60515	6931	56	56	0.1%	0.8%	48566	3196	154	42	0.3%	1.3%	42608	2461	154	42	0.4%	1.7%
24 hr	79669	9476	280	56	0.4%	0.6%	63375	4733	267	42	0.4%	0.9%	54742	3475	267	42	0.5%	1.2%

Link 7 - M2 East

2021 Baseline + WKN Construction (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Construction		% Impact		2021 Baseline		Construction		% Impact		2021 Baseline		Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.0%	0.0%	650	110	0	0	0.0%	0.0%	795	61	0	0	0.0%	0.0%
01.00	297	92	0	0	0.0%	0.0%	430	94	0	0	0.0%	0.0%	487	58	0	0	0.0%	0.0%
02.00	311	105	0	0	0.0%	0.0%	363	88	0	0	0.0%	0.0%	323	44	0	0	0.0%	0.0%
03.00	426	144	0	0	0.0%	0.0%	382	108	0	0	0.0%	0.0%	287	63	0	0	0.0%	0.0%
04.00	984	242	0	0	0.0%	0.0%	517	136	0	0	0.0%	0.0%	308	54	0	0	0.0%	0.0%
05.00	2575	395	0	0	0.0%	0.0%	1082	178	0	0	0.0%	0.0%	611	72	0	0	0.0%	0.0%
06.00	3905	453	56	0	1.4%	0.0%	1647	217	56	0	3.4%	0.0%	936	86	56	0	5.9%	0.0%
07.00	5181	472	1	1	0.0%	0.1%	2282	256	1	1	0.0%	0.2%	1256	98	1	1	0.0%	0.5%
08.00	4760	521	1	1	0.0%	0.1%	2933	263	1	1	0.0%	0.2%	1688	104	1	1	0.0%	0.5%
09.00	3956	540	1	1	0.0%	0.1%	3286	256	1	1	0.0%	0.2%	2511	143	1	1	0.0%	0.4%
10.00	3642	526	1	1	0.0%	0.1%	3759	246	1	1	0.0%	0.2%	3399	166	1	1	0.0%	0.3%
11.00	3638	512	1	1	0.0%	0.1%	4173	229	1	1	0.0%	0.2%	3893	193	1	1	0.0%	0.3%
12.00	3964	558	1	1	0.0%	0.1%	4386	219	1	1	0.0%	0.2%	4209	180	1	1	0.0%	0.3%
13.00	4106	569	1	1	0.0%	0.1%	4299	207	1	1	0.0%	0.2%	3983	180	1	1	0.0%	0.3%
14.00	4376	573	1	1	0.0%	0.1%	3961	206	1	1	0.0%	0.2%	3636	183	1	1	0.0%	0.3%
15.00	4837	552	1	1	0.0%	0.1%	3797	186	1	1	0.0%	0.3%	3464	169	1	1	0.0%	0.3%
16.00	5704	446	1	1	0.0%	0.1%	3994	177	56	0	1.4%	0.0%	3872	165	56	0	1.4%	0.0%
17.00	6058	361	1	1	0.0%	0.1%	3768	150	0	0	0.0%	0.0%	3501	155	0	0	0.0%	0.0%
18.00	4542	305	1	1	0.0%	0.2%	3333	142	0	0	0.0%	0.0%	3093	128	0	0	0.0%	0.0%
19.00	2976	228	56	0	1.9%	0.0%	2552	107	0	0	0.0%	0.0%	2553	108	0	0	0.0%	0.0%
20.00	2064	154	0	0	0.0%	0.0%	1844	76	0	0	0.0%	0.0%	1928	76	0	0	0.0%	0.0%
21.00	1516	108	0	0	0.0%	0.0%	1433	63	0	0	0.0%	0.0%	1367	68	0	0	0.0%	0.0%
22.00	1223	100	0	0	0.0%	0.0%	1436	55	0	0	0.0%	0.0%	887	54	0	0	0.0%	0.0%
23.00	731	96	0	0	0.0%	0.0%	1111	60	0	0	0.0%	0.0%	508	70	0	0	0.0%	0.0%
12 hr	54766	5936	6	6	0.0%	0.1%	43971	2538	60	5	0.1%	0.2%	38503	1863	60	5	0.2%	0.2%
24 hr	72162	8151	117	6	0.2%	0.1%	57418	3831	116	5	0.2%	0.1%	49494	2676	116	5	0.2%	0.2%



**Link 8 - Swale Way north of Reams Way Junction**

**2021 Baseline + WKN Construction (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Construction		% Impact		2021 Baseline		Construction		% Impact		2021 Baseline		Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	814	51	0	0	0.0%	0.0%	410	19	0	0	0.0%	0.0%	299	12	0	0	0.0%	0.0%
07.00	1414	85	0	0	0.0%	0.0%	349	22	0	0	0.0%	0.0%	154	12	0	0	0.0%	0.0%
08.00	1499	83	0	0	0.0%	0.0%	450	30	0	0	0.0%	0.0%	153	14	0	0	0.0%	0.0%
09.00	950	99	0	0	0.0%	0.0%	571	31	0	0	0.0%	0.0%	322	13	0	0	0.0%	0.0%
10.00	839	106	0	0	0.0%	0.0%	704	34	0	0	0.0%	0.0%	437	18	0	0	0.0%	0.0%
11.00	830	100	0	0	0.0%	0.0%	770	23	0	0	0.0%	0.0%	529	24	0	0	0.0%	0.0%
12.00	932	102	0	0	0.0%	0.0%	732	25	0	0	0.0%	0.0%	556	19	0	0	0.0%	0.0%
13.00	900	93	0	0	0.0%	0.0%	692	33	0	0	0.0%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	0	0	0.0%	0.0%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1188	86	0	0	0.0%	0.0%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	0	0	0.0%	0.0%	723	20	0	0	0.0%	0.0%	709	17	0	0	0.0%	0.0%
17.00	1299	61	0	0	0.0%	0.0%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	0	0	0.0%	0.0%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	653	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	259	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.0%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13175	1052	0	0	0.0%	0.0%	7301	304	0	0	0.0%	0.0%	5413	184	0	0	0.0%	0.0%
24 hr	16456	1362	0	0	0.0%	0.0%	9273	431	0	0	0.0%	0.0%	6957	280	0	0	0.0%	0.0%

**Link 9 - Swale Way south of Reams Way Junction**

**2021 Baseline + WKN Construction (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Construction		% Impact		2021 Baseline		Construction		% Impact		2021 Baseline		Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	826	57	0	0	0.0%	0.0%	443	20	0	0	0.0%	0.0%	303	13	0	0	0.0%	0.0%
07.00	1416	85	0	0	0.0%	0.0%	347	27	0	0	0.0%	0.0%	188	12	0	0	0.0%	0.0%
08.00	1432	94	0	0	0.0%	0.0%	484	26	0	0	0.0%	0.0%	155	7	0	0	0.0%	0.0%
09.00	917	105	0	0	0.0%	0.0%	575	35	0	0	0.0%	0.0%	324	15	0	0	0.0%	0.0%
10.00	828	107	0	0	0.0%	0.0%	716	25	0	0	0.0%	0.0%	474	15	0	0	0.0%	0.0%
11.00	850	108	0	0	0.0%	0.0%	775	35	0	0	0.0%	0.0%	506	17	0	0	0.0%	0.0%
12.00	917	98	0	0	0.0%	0.0%	749	34	0	0	0.0%	0.0%	522	15	0	0	0.0%	0.0%
13.00	950	92	0	0	0.0%	0.0%	622	32	0	0	0.0%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	0	0	0.0%	0.0%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	0	0	0.0%	0.0%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1433	82	0	0	0.0%	0.0%	717	19	0	0	0.0%	0.0%	610	14	0	0	0.0%	0.0%
17.00	1370	64	0	0	0.0%	0.0%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	0	0	0.0%	0.0%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	647	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.0%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13210	1093	0	0	0.0%	0.0%	7146	316	0	0	0.0%	0.0%	5030	194	0	0	0.0%	0.0%
24 hr	16474	1403	0	0	0.0%	0.0%	9189	425	0	0	0.0%	0.0%	6512	278	0	0	0.0%	0.0%

**Link 10 - Swale Way south of Ridham Avenue Roundabout**

**2021 Baseline + WKN Construction (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Construction		% Impact		2021 Baseline		Construction		% Impact		2021 Baseline		Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	566	37	0	0	0.0%	0.0%	198	12	0	0	0.0%	0.0%	100	5	0	0	0.0%	0.0%
07.00	1313	67	0	0	0.0%	0.0%	319	16	0	0	0.0%	0.0%	138	5	0	0	0.0%	0.0%
08.00	1401	71	0	0	0.0%	0.0%	421	17	0	0	0.0%	0.0%	139	4	0	0	0.0%	0.0%
09.00	869	83	0	0	0.0%	0.0%	542	18	0	0	0.0%	0.0%	312	4	0	0	0.0%	0.0%
10.00	741	88	0	0	0.0%	0.0%	681	16	0	0	0.0%	0.0%	404	8	0	0	0.0%	0.0%
11.00	740	75	0	0	0.0%	0.0%	764	11	0	0	0.0%	0.0%	518	9	0	0	0.0%	0.0%
12.00	823	81	0	0	0.0%	0.0%	717	15	0	0	0.0%	0.0%	540	11	0	0	0.0%	0.0%
13.00	833	74	0	0	0.0%	0.0%	658	16	0	0	0.0%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	77	0	0	0.0%	0.0%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	0	0	0.0%	0.0%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	0	0	0.0%	0.0%	533	13	0	0	0.0%	0.0%	522	11	0	0	0.0%	0.0%
17.00	1242	56	0	0	0.0%	0.0%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	50	0	0	0.0%	0.0%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	432	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.0%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12154	863	0	0	0.0%	0.0%	6807	170	0	0	0.0%	0.0%	5024	84	0	0	0.0%	0.0%
24 hr	14593	1055	0	0	0.0%	0.0%	8380	245	0	0	0.0%	0.0%	6219	120	0	0	0.0%	0.0%

**Link 11 - A249 North of Swale Way Junction**

**2021 Baseline + WKN Construction (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2021 Baseline		Construction		% Impact		2021 Baseline		Construction		% Impact		2021 Baseline		Construction		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.0%	0.0%	436	30	0	0	0.0%	0.0%
07.00	3012	191	0	0	0.0%	0.0%	1139	82	0	0	0.0%	0.0%	581	26	0	0	0.0%	0.0%
08.00	2710	235	0	0	0.0%	0.0%	1543	83	0	0	0.0%	0.0%	872	31	0	0	0.0%	0.0%
09.00	2053	238	0	0	0.0%	0.0%	1887	76	0	0	0.0%	0.0%	1368	48	0	0	0.0%	0.0%
10.00	1965	234	0	0	0.0%	0.0%	2223	85	0	0	0.0%	0.0%	2020	41	0	0	0.0%	0.0%
11.00	2067	230	0	0	0.0%	0.0%	2492	71	0	0	0.0%	0.0%	2331	38	0	0	0.0%	0.0%
12.00	2199	227	0	0	0.0%	0.0%	2640	63	0	0	0.0%	0.0%	2543	44	0	0	0.0%	0.0%
13.00	2235	222	0	0	0.0%	0.0%	2540	61	0	0	0.0%	0.0%	2417	47	0	0	0.0%	0.0%
14.00	2350	239	0	0	0.0%	0.0%	2406	57	0	0	0.0%	0.0%	2134	42	0	0	0.0%	0.0%
15.00	2574	205	0	0	0.0%	0.0%	2333	45	0	0	0.0%	0.0%	2049	45	0	0	0.0%	0.0%
16.00	3164	170	0	0	0.0%	0.0%	2290	49	0	0	0.0%	0.0%	2114	41	0	0	0.0%	0.0%
17.00	3303	126	0	0	0.0%	0.0%	2189	36	0	0	0.0%	0.0%	1964	39	0	0	0.0%	0.0%
18.00	2284	83	0	0	0.0%	0.0%	1847	36	0	0	0.0%	0.0%	1763	43	0	0	0.0%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	0	0	0.0%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	0	0	0.0%	0.0%	822	25	0	0	0.0%	0.0%	704	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.0%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.0%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29916	2398	0	0	0.0%	0.0%	25528	742	0	0	0.0%	0.0%	22156	485	0	0	0.0%	0.0%
24 hr	37860	3121	0	0	0.0%	0.0%	32342	1117	0	0	0.0%	0.0%	27697	709	0	0	0.0%	0.0%

**APPENDIX Y: 2024 BASELINE AND K3 OPERATIONAL  
PERCENTAGE IMPACT TABLE**

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Link 1 - Swale Way East of B2005 Groveshurst Roundabout																		
2024 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact																		
Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	160	51	5	5	3.1%	9.7%	179	45	5	5	2.8%	10.9%	184	15	5	5	2.7%	32.9%
01.00	148	46	5	5	3.3%	10.8%	158	56	5	5	3.1%	8.9%	157	14	5	5	3.2%	35.3%
02.00	164	42	5	5	3.0%	11.8%	128	45	5	5	3.9%	10.9%	97	13	5	5	5.1%	38.1%
03.00	242	66	5	5	2.1%	7.5%	165	46	5	5	3.0%	10.7%	82	15	5	5	6.0%	32.9%
04.00	366	80	5	5	1.4%	6.2%	204	61	5	5	2.4%	8.2%	100	16	5	5	5.0%	30.9%
05.00	945	135	5	5	0.5%	3.7%	530	93	5	5	0.9%	5.3%	289	47	5	5	1.7%	10.6%
06.00	1116	189	9	5	0.8%	2.6%	517	134	9	5	1.8%	3.7%	247	75	9	5	3.7%	6.6%
07.00	1885	216	34	30	1.8%	13.8%	677	128	34	30	5.0%	23.2%	271	61	25	21	9.4%	34.8%
08.00	2193	206	41	30	1.9%	14.5%	705	110	42	30	5.9%	27.2%	286	57	33	21	11.6%	37.0%
09.00	1326	229	29	29	2.2%	12.6%	778	133	29	29	3.7%	21.8%	307	65	20	20	6.6%	31.0%
10.00	1207	251	29	29	2.4%	11.5%	886	133	29	29	3.3%	21.7%	326	74	20	20	6.2%	27.4%
11.00	1233	237	29	29	2.3%	12.2%	915	129	29	29	3.2%	22.4%	547	71	20	20	3.7%	28.4%
12.00	1352	222	29	29	2.1%	13.0%	937	105	29	29	3.1%	27.4%	847	55	20	20	2.4%	36.8%
13.00	1465	245	34	30	2.3%	12.0%	903	108	25	21	2.8%	19.3%	510	69	25	21	4.9%	30.3%
14.00	1446	237	34	30	2.3%	12.5%	882	105	25	21	2.9%	19.9%	523	64	25	21	4.8%	32.7%
15.00	1571	234	30	30	1.9%	12.8%	898	111	21	21	2.4%	19.1%	529	66	21	21	4.0%	32.2%
16.00	1700	190	30	30	1.7%	15.7%	805	96	21	21	2.6%	22.1%	647	53	21	21	3.3%	40.0%
17.00	1800	155	41	30	2.3%	19.1%	810	81	33	21	4.0%	25.8%	666	50	33	21	4.9%	41.8%
18.00	1202	129	17	17	1.4%	13.1%	690	72	8	8	1.2%	11.6%	451	41	8	8	1.8%	20.3%
19.00	729	97	8	8	1.0%	7.9%	550	68	8	8	1.4%	11.2%	516	51	8	8	1.5%	14.9%
20.00	544	93	8	8	1.4%	8.2%	401	69	8	8	1.9%	11.1%	364	44	8	8	2.1%	17.4%
21.00	384	68	13	9	3.3%	12.7%	313	49	13	9	4.1%	17.5%	221	33	13	9	5.8%	25.8%
22.00	300	49	13	9	4.3%	17.5%	276	25	13	9	4.6%	34.2%	305	10	13	9	4.2%	86.2%
23.00	198	46	5	5	2.5%	10.8%	204	29	5	5	2.4%	17.0%	197	10	5	5	2.5%	49.6%
12 hr	18381	2550	374	340	2.0%	13.3%	9886	1311	325	289	3.3%	22.0%	5909	727	273	237	4.6%	32.6%
24 hr	23678	3513	459	412	1.9%	11.7%	13512	2032	410	361	3.0%	17.8%	8667	1070	358	309	4.1%	28.9%

**Link 2 - Barge Way North of Swale Roundabout**

**2024 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	128	35	5	5	3.9%	14.1%	133	31	5	5	3.7%	15.9%	100	26	5	5	5.0%	18.9%
01.00	131	32	5	5	3.8%	15.6%	107	26	5	5	4.6%	18.9%	87	25	5	5	5.7%	19.7%
02.00	169	33	5	5	2.9%	15.0%	130	35	5	5	3.8%	14.1%	88	22	5	5	5.6%	22.4%
03.00	223	51	5	5	2.2%	9.6%	166	43	5	5	3.0%	11.4%	81	25	5	5	6.1%	19.7%
04.00	308	63	5	5	1.6%	7.9%	211	57	5	5	2.3%	8.8%	104	28	5	5	4.8%	17.6%
05.00	545	99	5	5	0.9%	5.0%	346	85	5	5	1.4%	5.8%	194	55	5	5	2.6%	9.1%
06.00	530	138	9	5	1.7%	3.6%	308	123	9	5	3.0%	4.0%	168	77	9	5	5.5%	6.4%
07.00	515	147	34	30	6.6%	20.5%	301	112	34	30	11.3%	26.9%	156	77	25	21	16.4%	27.6%
08.00	515	145	42	30	8.1%	20.9%	278	116	42	30	15.0%	26.1%	160	66	33	21	20.7%	32.0%
09.00	434	163	29	29	6.6%	17.9%	276	122	29	29	10.4%	24.0%	155	77	20	20	13.1%	26.2%
10.00	446	169	29	29	6.4%	17.3%	287	111	29	29	10.0%	26.3%	159	82	20	20	12.8%	24.8%
11.00	403	168	29	29	7.1%	17.4%	259	117	29	29	11.1%	25.0%	183	94	20	20	11.1%	21.4%
12.00	417	152	29	29	6.9%	19.3%	238	79	29	29	12.1%	36.9%	219	65	20	20	9.3%	31.2%
13.00	511	177	34	30	6.6%	16.9%	304	95	25	21	8.3%	22.0%	214	85	25	21	11.7%	24.6%
14.00	506	186	34	30	6.6%	16.1%	275	107	25	21	9.2%	19.5%	187	83	25	21	13.5%	25.2%
15.00	508	184	30	30	5.9%	16.4%	293	116	21	21	7.2%	18.2%	182	86	21	21	11.7%	24.7%
16.00	524	149	30	30	5.7%	20.3%	245	76	21	21	8.7%	27.9%	221	82	21	21	9.6%	25.8%
17.00	497	113	41	30	8.3%	26.5%	201	69	33	21	16.3%	30.3%	181	60	33	21	18.1%	34.9%
18.00	369	94	17	17	4.5%	18.3%	187	53	8	8	4.4%	15.7%	143	47	8	8	5.8%	17.8%
19.00	248	85	8	8	3.1%	9.0%	134	69	8	8	5.7%	11.0%	130	54	8	8	5.8%	14.1%
20.00	183	64	8	8	4.2%	11.8%	106	57	8	8	7.2%	13.4%	100	50	8	8	7.7%	15.3%
21.00	144	47	13	9	8.9%	18.4%	89	40	13	9	14.5%	21.4%	74	34	13	9	17.5%	25.2%
22.00	109	32	13	9	11.8%	26.9%	67	23	13	9	19.3%	37.2%	73	15	13	9	17.7%	57.2%
23.00	143	41	5	5	3.5%	12.1%	77	24	5	5	6.5%	20.5%	74	20	5	5	6.7%	24.7%
12 hr	5645	1845	375	345	6.6%	18.7%	3143	1174	324	291	10.3%	24.8%	2159	905	273	237	12.7%	26.2%
24 hr	8506	2566	460	417	5.4%	16.2%	5018	1788	409	363	8.2%	20.3%	3430	1337	358	309	10.4%	23.1%

**Link 3 - Barge Way East of Fleet End Roundabout**

**2024 Baseline + K3 Operational (K3 0-75MW) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	18	5	5	12.5%	27.1%	90	14	5	5	5.5%	35.3%	14	10	5	5	35.3%	49.6%
01.00	38	17	5	5	12.9%	29.4%	34	17	5	5	14.5%	29.0%	11	10	5	5	45.1%	49.6%
02.00	57	20	5	5	8.7%	25.4%	35	25	5	5	14.1%	19.7%	13	10	5	5	38.1%	49.6%
03.00	71	21	5	5	7.0%	23.3%	19	12	5	5	26.0%	41.3%	11	10	5	5	45.1%	49.6%
04.00	111	27	5	5	4.5%	18.2%	38	20	5	5	12.9%	24.7%	20	10	5	5	24.7%	49.6%
05.00	226	36	5	5	2.2%	13.9%	97	17	5	5	5.1%	29.0%	55	11	5	5	9.0%	45.1%
06.00	275	54	9	5	3.4%	9.1%	109	39	9	5	8.4%	12.6%	55	13	9	5	16.8%	38.1%
07.00	301	65	34	30	11.4%	46.3%	125	35	34	30	27.5%	85.6%	64	13	25	21	39.6%	163.0%
08.00	292	73	42	30	14.4%	41.2%	125	39	42	30	33.6%	76.8%	80	10	33	21	41.6%	212.5%
09.00	224	76	29	29	13.1%	38.4%	118	39	29	29	24.8%	74.2%	58	10	20	20	34.9%	202.5%
10.00	213	78	29	29	13.7%	37.3%	106	34	29	29	27.5%	85.2%	59	10	20	20	34.5%	202.5%
11.00	188	75	29	29	15.6%	38.9%	91	20	29	29	31.9%	145.2%	52	12	20	20	39.0%	168.4%
12.00	221	76	29	29	13.2%	38.3%	84	15	29	29	34.9%	194.0%	59	11	20	20	34.1%	183.9%
13.00	256	78	34	30	13.3%	38.5%	111	14	25	21	22.7%	148.9%	92	10	25	21	27.5%	209.2%
14.00	234	88	34	30	14.6%	34.1%	88	13	25	21	28.5%	160.5%	71	10	25	21	35.4%	209.2%
15.00	211	85	30	30	14.3%	35.7%	80	17	21	21	26.7%	124.4%	61	11	21	21	34.6%	192.9%
16.00	243	63	30	30	12.4%	47.6%	87	14	21	21	24.5%	151.3%	81	13	21	21	26.4%	163.0%
17.00	271	43	42	30	15.4%	69.2%	86	11	33	21	38.2%	190.0%	95	10	33	21	34.5%	209.2%
18.00	147	30	17	17	11.8%	57.4%	62	12	8	8	13.4%	68.9%	59	11	8	8	14.1%	75.3%
19.00	88	28	8	8	8.6%	26.8%	47	10	8	8	16.3%	76.2%	50	10	8	8	15.3%	76.2%
20.00	77	27	8	8	9.8%	28.6%	29	12	8	8	25.9%	63.4%	28	10	8	8	26.8%	76.2%
21.00	67	19	13	9	19.1%	44.6%	27	10	13	9	47.3%	86.2%	26	12	13	9	49.1%	71.7%
22.00	41	21	13	9	31.5%	41.2%	12	10	13	9	106.9%	86.2%	19	11	13	9	67.3%	78.3%
23.00	40	17	5	5	12.4%	29.0%	11	10	5	5	45.1%	49.6%	17	11	5	5	29.0%	45.1%
12 hr	2801	831	381	345	13.6%	41.5%	1163	265	327	291	28.1%	109.9%	831	131	273	237	32.9%	180.8%
24 hr	3932	1136	466	417	11.8%	36.7%	1712	462	412	363	24.1%	78.6%	1150	259	358	309	31.2%	119.3%



**Link 4 - A249 South of Swale Way Junction**

**2024 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	235	62	5	5	2.1%	8.0%	393	63	5	5	1.3%	7.9%	453	40	5	5	1.1%	12.3%
01.00	169	53	5	5	2.9%	9.3%	262	58	5	5	1.9%	8.6%	291	33	5	5	1.7%	14.9%
02.00	167	60	5	5	3.0%	8.3%	222	68	5	5	2.2%	7.3%	204	37	5	5	2.4%	13.6%
03.00	237	78	5	5	2.1%	6.4%	223	68	5	5	2.2%	7.3%	171	39	5	5	2.9%	12.8%
04.00	548	139	5	5	0.9%	3.6%	305	76	5	5	1.6%	6.5%	196	40	5	5	2.5%	12.5%
05.00	1339	239	5	5	0.4%	2.1%	695	140	5	5	0.7%	3.5%	409	75	5	5	1.2%	6.6%
06.00	2212	303	9	5	0.4%	1.6%	1041	181	9	5	0.9%	2.7%	625	109	9	5	1.4%	4.5%
07.00	3124	339	34	29	1.1%	8.7%	1415	193	34	29	2.4%	15.3%	801	106	25	21	3.2%	20.0%
08.00	2874	343	41	29	1.4%	8.6%	1803	204	41	29	2.3%	14.4%	1107	106	33	21	2.9%	20.0%
09.00	2192	357	28	28	1.3%	8.0%	2048	223	28	28	1.4%	12.8%	1628	147	20	20	1.2%	13.8%
10.00	2101	378	28	28	1.4%	7.5%	2343	211	28	28	1.2%	13.5%	2090	164	20	20	1.0%	12.4%
11.00	2136	369	28	28	1.3%	7.7%	2486	206	28	28	1.1%	13.8%	2312	162	20	20	0.9%	12.5%
12.00	2296	362	28	28	1.2%	7.9%	2678	183	28	28	1.1%	15.6%	2172	135	20	20	0.9%	15.0%
13.00	2329	380	33	29	1.4%	7.7%	2619	189	25	21	1.0%	11.1%	2133	144	25	21	1.2%	14.6%
14.00	2571	381	33	29	1.3%	7.7%	2400	174	25	21	1.0%	12.0%	2151	145	25	21	1.2%	14.5%
15.00	2860	376	29	29	1.0%	7.8%	2354	178	21	21	0.9%	12.0%	2124	156	21	21	1.0%	13.6%
16.00	3385	312	29	29	0.9%	9.5%	2296	151	21	21	0.9%	14.0%	2234	150	21	21	1.0%	14.2%
17.00	3658	272	40	29	1.1%	10.7%	2331	142	32	21	1.4%	14.8%	1944	136	32	21	1.7%	15.4%
18.00	2762	243	17	17	0.6%	6.8%	2033	129	8	8	0.4%	6.4%	1858	124	8	8	0.4%	6.7%
19.00	1846	184	8	8	0.4%	4.1%	1596	118	8	8	0.5%	6.5%	1543	111	8	8	0.5%	6.9%
20.00	1272	137	8	8	0.6%	5.6%	1159	86	8	8	0.7%	8.8%	1274	95	8	8	0.6%	8.1%
21.00	947	104	13	9	1.3%	8.3%	964	66	13	9	1.3%	13.1%	926	78	13	9	1.4%	11.0%
22.00	726	69	13	9	1.7%	12.5%	852	44	13	9	1.5%	19.6%	545	40	13	9	2.3%	21.6%
23.00	435	58	5	5	1.1%	8.5%	659	45	5	5	0.8%	11.1%	331	42	5	5	1.5%	11.9%
12 hr	32289	4112	371	336	1.1%	8.2%	26806	2183	321	286	1.2%	13.1%	22554	1674	272	237	1.2%	14.2%
24 hr	42420	5597	455	408	1.1%	7.3%	35179	3194	406	359	1.2%	11.2%	29521	2413	356	309	1.2%	12.8%

**Link 5 - A249 between the A2 and M2**

**2024 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	333	86	5	5	1.5%	5.8%	559	88	5	5	0.9%	5.7%	644	55	5	5	0.8%	9.0%
01.00	238	74	5	5	2.1%	6.7%	372	80	5	5	1.3%	6.2%	414	45	5	5	1.2%	11.0%
02.00	236	82	5	5	2.1%	6.0%	315	94	5	5	1.6%	5.3%	290	50	5	5	1.7%	10.0%
03.00	334	108	5	5	1.5%	4.6%	317	95	5	5	1.6%	5.2%	242	53	5	5	2.1%	9.3%
04.00	777	194	5	5	0.6%	2.6%	433	106	5	5	1.1%	4.7%	277	54	5	5	1.8%	9.2%
05.00	1873	323	5	5	0.3%	1.5%	971	185	5	5	0.5%	2.7%	562	92	5	5	0.9%	5.4%
06.00	3105	401	9	5	0.3%	1.2%	1451	232	9	5	0.6%	2.1%	854	129	9	5	1.0%	3.9%
07.00	4370	438	34	30	0.8%	6.9%	1968	243	34	30	1.7%	12.4%	1109	129	25	21	2.3%	16.5%
08.00	3947	444	41	30	1.0%	6.8%	2523	261	41	30	1.6%	11.6%	1544	130	32	21	2.1%	16.3%
09.00	3046	460	29	29	1.0%	6.4%	2898	283	29	29	1.0%	10.3%	2301	184	20	20	0.9%	11.0%
10.00	2911	487	29	29	1.0%	6.0%	3318	265	29	29	0.9%	11.0%	2988	206	20	20	0.7%	9.8%
11.00	2965	476	29	29	1.0%	6.1%	3536	258	29	29	0.8%	11.3%	3319	205	20	20	0.6%	9.9%
12.00	3193	475	29	29	0.9%	6.2%	3827	233	29	29	0.8%	12.5%	3125	174	20	20	0.6%	11.6%
13.00	3233	492	34	30	1.0%	6.1%	3719	234	25	21	0.7%	9.0%	3043	179	25	21	0.8%	11.7%
14.00	3573	498	34	30	0.9%	6.0%	3422	217	25	21	0.7%	9.6%	3060	184	25	21	0.8%	11.3%
15.00	4005	486	30	30	0.8%	6.2%	3349	218	21	21	0.6%	9.8%	3027	197	21	21	0.7%	10.8%
16.00	4747	401	30	30	0.6%	7.5%	3261	186	21	21	0.7%	11.4%	3177	193	21	21	0.7%	11.0%
17.00	5113	345	41	30	0.8%	8.6%	3322	173	32	21	1.0%	12.1%	2762	175	32	21	1.1%	12.0%
18.00	3899	310	17	17	0.4%	5.6%	2904	159	8	8	0.3%	5.2%	2653	161	8	8	0.3%	5.2%
19.00	2591	239	8	8	0.3%	3.2%	2248	148	8	8	0.3%	5.1%	2172	138	8	8	0.4%	5.5%
20.00	1785	175	8	8	0.4%	4.3%	1634	107	8	8	0.5%	7.1%	1798	118	8	8	0.4%	6.4%
21.00	1328	133	12	9	0.9%	6.5%	1361	82	12	9	0.9%	10.4%	1306	100	12	9	1.0%	8.6%
22.00	1021	95	12	9	1.2%	9.1%	1216	60	12	9	1.0%	14.3%	777	55	12	9	1.6%	15.8%
23.00	616	81	5	5	0.8%	6.2%	940	61	5	5	0.5%	8.1%	470	57	5	5	1.1%	8.7%
12 hr	45002	5311	378	345	0.8%	6.5%	38048	2731	324	291	0.9%	10.6%	32108	2118	270	237	0.8%	11.2%
24 hr	59239	7303	462	417	0.8%	5.7%	49865	4070	408	363	0.8%	8.9%	41914	3063	354	309	0.8%	10.1%

Link 6 - M2 West

2024 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	425	108	3	3	0.7%	2.8%	708	120	3	3	0.4%	2.6%	866	66	3	3	0.4%	4.6%
01.00	323	100	3	3	0.9%	3.1%	469	103	3	3	0.7%	3.0%	530	63	3	3	0.6%	4.9%
02.00	338	114	3	3	0.9%	2.7%	395	96	3	3	0.8%	3.2%	351	48	3	3	0.9%	6.4%
03.00	464	157	3	3	0.7%	1.9%	416	117	3	3	0.7%	2.6%	312	68	3	3	1.0%	4.5%
04.00	1072	263	3	3	0.3%	1.2%	563	148	3	3	0.5%	2.1%	335	59	3	3	0.9%	5.2%
05.00	2827	446	3	3	0.1%	0.7%	1196	210	3	3	0.3%	1.5%	684	95	3	3	0.4%	3.2%
06.00	4264	524	4	3	0.1%	0.6%	1800	266	4	3	0.2%	1.2%	1026	123	4	3	0.4%	2.5%
07.00	5694	537	16	15	0.3%	2.7%	2513	300	16	15	0.6%	4.9%	1399	130	14	13	1.0%	10.1%
08.00	5262	589	18	15	0.3%	2.5%	3224	306	18	15	0.6%	4.8%	1870	133	16	13	0.9%	9.8%
09.00	4362	615	14	14	0.3%	2.3%	3619	304	14	14	0.4%	4.6%	2773	181	12	12	0.5%	6.9%
10.00	4023	602	14	14	0.3%	2.3%	4139	296	14	14	0.3%	4.7%	3753	210	12	12	0.3%	6.0%
11.00	4016	586	14	14	0.3%	2.4%	4589	276	14	14	0.3%	5.1%	4291	238	12	12	0.3%	5.3%
12.00	4365	626	14	14	0.3%	2.2%	4813	254	14	14	0.3%	5.5%	4624	212	12	12	0.3%	5.9%
13.00	4530	648	16	14	0.3%	2.2%	4733	252	14	13	0.3%	5.1%	4390	223	14	13	0.3%	5.8%
14.00	4821	647	16	14	0.3%	2.2%	4358	246	14	13	0.3%	5.2%	3999	221	14	13	0.4%	5.8%
15.00	5328	629	15	15	0.3%	2.3%	4185	229	13	13	0.3%	5.7%	3820	211	13	13	0.3%	6.2%
16.00	6269	506	15	15	0.2%	2.9%	4365	213	13	13	0.3%	6.1%	4229	200	13	13	0.3%	6.5%
17.00	6664	412	18	14	0.3%	3.5%	4142	182	16	13	0.4%	7.1%	3845	188	16	13	0.4%	6.9%
18.00	4984	347	7	7	0.1%	1.9%	3662	169	5	5	0.1%	3.0%	3397	154	5	5	0.2%	3.3%
19.00	3244	269	5	5	0.1%	1.7%	2803	137	5	5	0.2%	3.4%	2805	138	5	5	0.2%	3.4%
20.00	2268	184	5	5	0.2%	2.6%	2026	99	5	5	0.2%	4.8%	2118	100	5	5	0.2%	4.7%
21.00	1664	129	6	5	0.4%	4.1%	1572	80	6	5	0.4%	6.7%	1500	85	6	5	0.4%	6.3%
22.00	1335	109	6	5	0.5%	4.9%	1564	60	6	5	0.4%	8.8%	965	59	6	5	0.7%	9.1%
23.00	796	105	3	3	0.4%	2.9%	1210	66	3	3	0.3%	4.7%	553	76	3	3	0.6%	4.0%
12 hr	60318	6744	174	164	0.3%	2.4%	48343	3029	165	155	0.3%	5.1%	42392	2301	156	146	0.4%	6.4%
24 hr	79338	9252	222	209	0.3%	2.3%	63065	4530	213	200	0.3%	4.4%	54439	3279	204	191	0.4%	5.8%

Link 7 - M2 East

2024 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.1%	0.3%	649	110	0	0	0.1%	0.3%	795	60	0	0	0.0%	0.6%
01.00	296	92	0	0	0.1%	0.4%	430	94	0	0	0.1%	0.4%	487	57	0	0	0.1%	0.6%
02.00	310	104	0	0	0.1%	0.3%	363	88	0	0	0.1%	0.4%	322	44	0	0	0.1%	0.8%
03.00	425	144	0	0	0.1%	0.2%	382	107	0	0	0.1%	0.3%	287	62	0	0	0.1%	0.5%
04.00	983	241	0	0	0.0%	0.1%	516	136	0	0	0.1%	0.2%	307	53	0	0	0.1%	0.6%
05.00	2574	394	0	0	0.0%	0.1%	1081	177	0	0	0.0%	0.2%	611	72	0	0	0.1%	0.5%
06.00	3881	453	1	0	0.0%	0.1%	1623	217	1	0	0.1%	0.2%	912	85	1	0	0.1%	0.4%
07.00	5178	469	3	3	0.1%	0.5%	2279	253	3	3	0.1%	1.0%	1254	97	2	1	0.2%	1.5%
08.00	4756	519	4	3	0.1%	0.5%	2929	260	4	3	0.1%	1.0%	1685	102	3	1	0.2%	1.4%
09.00	3954	537	2	2	0.1%	0.5%	3284	254	2	2	0.1%	1.0%	2509	141	1	1	0.1%	1.0%
10.00	3640	523	2	2	0.1%	0.5%	3757	244	2	2	0.1%	1.0%	3397	164	1	1	0.0%	0.8%
11.00	3636	509	2	2	0.1%	0.5%	4170	227	2	2	0.1%	1.1%	3891	191	1	1	0.0%	0.7%
12.00	3962	556	2	2	0.1%	0.4%	4383	217	2	2	0.1%	1.1%	4207	178	1	1	0.0%	0.8%
13.00	4103	567	3	3	0.1%	0.4%	4297	205	2	1	0.0%	0.7%	3981	179	2	1	0.0%	0.8%
14.00	4373	571	3	3	0.1%	0.4%	3959	204	2	1	0.0%	0.7%	3634	181	2	1	0.1%	0.8%
15.00	4834	550	3	3	0.1%	0.5%	3796	184	1	1	0.0%	0.8%	3462	168	1	1	0.0%	0.8%
16.00	5701	444	3	3	0.0%	0.6%	3970	176	1	1	0.0%	0.8%	3847	164	1	1	0.0%	0.9%
17.00	6054	359	4	3	0.1%	0.7%	3765	148	3	1	0.1%	0.9%	3498	154	3	1	0.1%	0.9%
18.00	4541	303	2	2	0.0%	0.6%	3333	142	1	1	0.0%	0.4%	3092	128	1	1	0.0%	0.4%
19.00	2953	228	1	1	0.0%	0.2%	2551	107	1	1	0.0%	0.5%	2553	108	1	1	0.0%	0.5%
20.00	2064	153	1	1	0.0%	0.3%	1844	75	1	1	0.0%	0.7%	1928	76	1	1	0.0%	0.7%
21.00	1515	108	1	1	0.1%	0.5%	1432	63	1	1	0.1%	0.9%	1366	68	1	1	0.1%	0.9%
22.00	1222	100	1	1	0.1%	0.6%	1435	55	1	1	0.1%	1.0%	886	54	1	1	0.1%	1.1%
23.00	730	96	0	0	0.0%	0.3%	1111	60	0	0	0.0%	0.6%	507	69	0	0	0.1%	0.5%
12 hr	54731	5906	34	29	0.1%	0.5%	43920	2515	28	23	0.1%	0.9%	38458	1846	21	16	0.1%	0.9%
24 hr	72075	8117	41	34	0.1%	0.4%	57338	3804	34	27	0.1%	0.7%	49419	2655	27	21	0.1%	0.8%

Link 8 - Swale Way north of Reams Way Junction

2024 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	644	51	0	0	0.0%	0.0%	240	19	0	0	0.0%	0.0%	129	12	0	0	0.0%	0.0%
07.00	1413	84	0	0	0.0%	0.4%	348	22	0	0	0.1%	1.4%	154	12	0	0	0.0%	0.0%
08.00	1498	83	0	0	0.0%	0.4%	450	30	0	0	0.1%	1.1%	153	14	0	0	0.0%	0.0%
09.00	949	98	0	0	0.0%	0.3%	570	31	0	0	0.1%	1.0%	322	13	0	0	0.0%	0.0%
10.00	839	106	0	0	0.0%	0.3%	704	34	0	0	0.0%	0.9%	437	18	0	0	0.0%	0.0%
11.00	830	100	0	0	0.0%	0.3%	770	23	0	0	0.0%	1.4%	529	24	0	0	0.0%	0.0%
12.00	931	102	0	0	0.0%	0.3%	732	25	0	0	0.0%	1.3%	556	19	0	0	0.0%	0.0%
13.00	900	93	0	0	0.0%	0.3%	692	33	0	0	0.0%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	0	0	0.0%	0.3%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1187	86	0	0	0.0%	0.4%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	0	0	0.0%	0.4%	553	20	0	0	0.0%	0.0%	539	17	0	0	0.0%	0.0%
17.00	1298	61	0	0	0.0%	0.5%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	0	0	0.0%	0.5%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	483	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	258	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.1%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13171	1048	4	4	0.0%	0.4%	7129	303	2	2	0.0%	0.6%	5243	184	0	0	0.0%	0.0%
24 hr	16112	1358	4	4	0.0%	0.3%	8930	429	2	2	0.0%	0.4%	6616	280	0	0	0.0%	0.0%

**Link 9 - Swale Way south of Reams Way Junction**

**2024 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	656	57	0	0	0.0%	0.0%	273	20	0	0	0.0%	0.0%	133	13	0	0	0.0%	0.0%
07.00	1416	85	0	0	0.0%	0.4%	346	27	0	0	0.1%	1.2%	188	12	0	0	0.0%	0.0%
08.00	1431	93	0	0	0.0%	0.3%	484	26	0	0	0.1%	1.2%	155	7	0	0	0.0%	0.0%
09.00	917	105	0	0	0.0%	0.3%	574	35	0	0	0.1%	0.9%	324	15	0	0	0.0%	0.0%
10.00	828	107	0	0	0.0%	0.3%	716	25	0	0	0.0%	1.3%	474	15	0	0	0.0%	0.0%
11.00	850	108	0	0	0.0%	0.3%	775	35	0	0	0.0%	0.9%	506	17	0	0	0.0%	0.0%
12.00	917	98	0	0	0.0%	0.3%	749	34	0	0	0.0%	0.9%	522	15	0	0	0.0%	0.0%
13.00	949	92	0	0	0.0%	0.3%	622	32	0	0	0.0%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	0	0	0.0%	0.3%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	0	0	0.0%	0.3%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1432	81	0	0	0.0%	0.4%	547	19	0	0	0.0%	0.0%	440	14	0	0	0.0%	0.0%
17.00	1369	64	0	0	0.0%	0.5%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	0	0	0.0%	0.5%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	477	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.1%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13206	1090	4	4	0.0%	0.3%	6974	315	2	2	0.0%	0.6%	4860	194	0	0	0.0%	0.0%
24 hr	16130	1399	4	4	0.0%	0.3%	8846	423	2	2	0.0%	0.4%	6171	278	0	0	0.0%	0.0%

**Link 10 - Swale Way south of Ridham Avenue Roundabout**

**2024 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	565	37	0	0	0.0%	0.0%	197	12	0	0	0.0%	0.0%	99	5	0	0	0.0%	0.0%
07.00	1312	66	0	0	0.0%	0.5%	319	16	0	0	0.1%	2.0%	138	5	0	0	0.0%	0.0%
08.00	1401	70	0	0	0.0%	0.4%	421	17	0	0	0.1%	1.9%	139	4	0	0	0.0%	0.0%
09.00	869	82	0	0	0.0%	0.4%	541	18	0	0	0.1%	1.8%	312	4	0	0	0.0%	0.0%
10.00	741	87	0	0	0.0%	0.4%	681	16	0	0	0.0%	2.0%	404	8	0	0	0.0%	0.0%
11.00	739	75	0	0	0.0%	0.4%	763	11	0	0	0.0%	2.9%	518	9	0	0	0.0%	0.0%
12.00	822	81	0	0	0.0%	0.4%	717	15	0	0	0.0%	2.1%	540	11	0	0	0.0%	0.0%
13.00	833	73	0	0	0.0%	0.4%	658	16	0	0	0.0%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	76	0	0	0.0%	0.4%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	0	0	0.0%	0.4%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	0	0	0.0%	0.5%	532	13	0	0	0.0%	0.0%	521	11	0	0	0.0%	0.0%
17.00	1242	55	0	0	0.0%	0.6%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	49	0	0	0.0%	0.6%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	431	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.1%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12150	859	4	4	0.0%	0.4%	6804	168	2	2	0.0%	1.1%	5023	84	0	0	0.0%	0.0%
24 hr	14587	1052	4	4	0.0%	0.4%	8376	243	2	2	0.0%	0.8%	6217	120	0	0	0.0%	0.0%

**Link 11 - A249 North of Swale Way Junction**

**2024 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.0%	0.0%	436	30	0	0	0.0%	0.0%
07.00	3011	190	0	0	0.0%	0.1%	1138	81	0	0	0.0%	0.3%	581	26	0	0	0.0%	0.0%
08.00	2710	235	1	0	0.0%	0.1%	1542	83	1	0	0.0%	0.3%	871	31	0	0	0.0%	0.0%
09.00	2053	237	0	0	0.0%	0.1%	1887	76	0	0	0.0%	0.3%	1368	48	0	0	0.0%	0.0%
10.00	1965	234	0	0	0.0%	0.1%	2223	85	0	0	0.0%	0.3%	2020	41	0	0	0.0%	0.0%
11.00	2067	230	0	0	0.0%	0.1%	2492	70	0	0	0.0%	0.4%	2331	38	0	0	0.0%	0.0%
12.00	2199	227	0	0	0.0%	0.1%	2640	62	0	0	0.0%	0.4%	2543	44	0	0	0.0%	0.0%
13.00	2234	221	1	0	0.0%	0.1%	2539	61	0	0	0.0%	0.0%	2416	47	0	0	0.0%	0.0%
14.00	2349	239	1	0	0.0%	0.1%	2405	57	0	0	0.0%	0.0%	2133	42	0	0	0.0%	0.0%
15.00	2574	205	0	0	0.0%	0.1%	2333	45	0	0	0.0%	0.0%	2049	45	0	0	0.0%	0.0%
16.00	3163	169	0	0	0.0%	0.1%	2290	49	0	0	0.0%	0.0%	2114	41	0	0	0.0%	0.0%
17.00	3303	126	1	0	0.0%	0.2%	2188	36	0	0	0.0%	0.0%	1964	39	0	0	0.0%	0.0%
18.00	2284	83	0	0	0.0%	0.3%	1847	36	0	0	0.0%	0.0%	1763	43	0	0	0.0%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	0	0	0.0%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	0	0	0.0%	0.0%	822	25	0	0	0.0%	0.0%	703	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.1%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.1%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29912	2396	4	3	0.0%	0.1%	25525	741	3	1	0.0%	0.2%	22154	485	1	0	0.0%	0.0%
24 hr	37856	3118	5	3	0.0%	0.1%	32339	1116	4	1	0.0%	0.1%	27695	709	2	0	0.0%	0.0%



Link 1 - Swale Way East of B2005 Groveshurst Roundabout																		
2024 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact																		
Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	165	56	0	0	0.0%	0.0%	184	50	0	0	0.0%	0.0%	189	20	0	0	0.0%	0.0%
01.00	153	51	0	0	0.0%	0.0%	163	60	0	0	0.0%	0.0%	162	19	0	0	0.0%	0.0%
02.00	169	47	0	0	0.0%	0.0%	133	50	0	0	0.0%	0.0%	102	18	0	0	0.0%	0.0%
03.00	247	71	0	0	0.0%	0.0%	170	51	0	0	0.0%	0.0%	87	20	0	0	0.0%	0.0%
04.00	371	85	0	0	0.0%	0.0%	209	66	0	0	0.0%	0.0%	105	21	0	0	0.0%	0.0%
05.00	950	140	0	0	0.0%	0.0%	535	98	0	0	0.0%	0.0%	294	52	0	0	0.0%	0.0%
06.00	1125	194	0	0	0.0%	0.0%	527	139	0	0	0.0%	0.0%	256	80	0	0	0.0%	0.0%
07.00	1914	241	5	5	0.3%	2.1%	706	153	5	5	0.7%	3.3%	293	79	4	4	1.2%	4.6%
08.00	2229	231	5	5	0.2%	2.2%	741	134	5	5	0.7%	3.8%	315	75	4	4	1.2%	4.9%
09.00	1350	254	4	4	0.3%	1.6%	803	157	4	4	0.5%	2.6%	325	83	3	3	0.8%	3.2%
10.00	1232	275	4	4	0.3%	1.5%	911	158	4	4	0.4%	2.6%	344	91	3	3	0.8%	2.9%
11.00	1258	262	4	4	0.3%	1.6%	940	153	4	4	0.4%	2.7%	564	89	3	3	0.5%	3.0%
12.00	1377	247	4	4	0.3%	1.7%	962	130	4	4	0.4%	3.1%	864	73	3	3	0.3%	3.7%
13.00	1494	270	5	5	0.3%	1.8%	924	126	3	3	0.4%	2.6%	532	87	3	3	0.6%	3.8%
14.00	1475	262	5	5	0.3%	1.8%	904	123	3	3	0.4%	2.7%	545	81	3	3	0.6%	4.1%
15.00	1596	258	5	5	0.3%	2.0%	916	129	4	4	0.4%	2.8%	546	84	4	4	0.7%	4.4%
16.00	1725	215	5	5	0.3%	2.4%	823	114	4	4	0.4%	3.2%	665	71	4	4	0.5%	5.2%
17.00	1837	179	5	5	0.3%	2.6%	839	99	3	3	0.4%	3.4%	695	68	3	3	0.5%	4.9%
18.00	1214	141	5	5	0.4%	3.4%	695	77	3	3	0.5%	4.3%	456	46	3	3	0.7%	7.3%
19.00	734	102	3	3	0.4%	2.6%	555	73	3	3	0.5%	3.6%	521	56	3	3	0.5%	4.7%
20.00	549	98	3	3	0.5%	2.7%	406	74	3	3	0.7%	3.6%	369	49	3	3	0.7%	5.4%
21.00	394	73	4	4	0.9%	5.0%	322	54	4	4	1.1%	6.7%	231	38	4	4	1.6%	9.5%
22.00	309	54	4	4	1.2%	6.8%	285	30	4	4	1.3%	12.1%	314	15	4	4	1.2%	24.4%
23.00	203	51	0	0	0.0%	0.0%	209	34	0	0	0.0%	0.0%	202	15	0	0	0.0%	0.0%
12 hr	18700	2835	56	56	0.3%	2.0%	10164	1552	47	47	0.5%	3.0%	6144	925	39	39	0.6%	4.2%
24 hr	24069	3857	68	68	0.3%	1.8%	13862	2333	60	60	0.4%	2.6%	8974	1328	51	51	0.6%	3.9%

**Link 2 - Barge Way North of Swale Roundabout**

**2024 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	133	40	0	0	0.0%	0.0%	138	36	0	0	0.0%	0.0%	105	31	0	0	0.0%	0.0%
01.00	136	37	0	0	0.0%	0.0%	112	31	0	0	0.0%	0.0%	92	30	0	0	0.0%	0.0%
02.00	174	38	0	0	0.0%	0.0%	135	40	0	0	0.0%	0.0%	93	27	0	0	0.0%	0.0%
03.00	228	56	0	0	0.0%	0.0%	171	48	0	0	0.0%	0.0%	86	30	0	0	0.0%	0.0%
04.00	313	68	0	0	0.0%	0.0%	216	62	0	0	0.0%	0.0%	109	33	0	0	0.0%	0.0%
05.00	550	104	0	0	0.0%	0.0%	351	90	0	0	0.0%	0.0%	199	60	0	0	0.0%	0.0%
06.00	539	143	0	0	0.0%	0.0%	318	128	0	0	0.0%	0.0%	177	82	0	0	0.0%	0.0%
07.00	544	172	5	5	0.9%	3.0%	330	138	5	5	1.5%	3.7%	178	95	4	4	2.1%	3.9%
08.00	551	170	5	5	0.9%	3.0%	314	141	5	5	1.6%	3.6%	190	84	4	4	1.9%	4.4%
09.00	459	188	4	4	0.9%	2.2%	301	147	4	4	1.4%	2.8%	172	95	3	3	1.5%	2.8%
10.00	470	194	4	4	0.9%	2.1%	312	136	4	4	1.3%	3.0%	176	99	3	3	1.5%	2.7%
11.00	427	193	4	4	1.0%	2.1%	283	142	4	4	1.5%	2.9%	201	112	3	3	1.3%	2.4%
12.00	441	177	4	4	0.9%	2.3%	262	104	4	4	1.6%	4.0%	236	83	3	3	1.1%	3.2%
13.00	540	202	5	5	0.9%	2.4%	326	113	3	3	1.0%	2.9%	236	103	3	3	1.4%	3.2%
14.00	535	211	5	5	0.9%	2.3%	296	125	3	3	1.1%	2.7%	208	101	3	3	1.6%	3.3%
15.00	532	209	5	5	1.0%	2.4%	311	134	4	4	1.2%	2.7%	200	104	4	4	1.8%	3.5%
16.00	549	174	5	5	0.9%	2.9%	263	94	4	4	1.4%	3.9%	238	100	4	4	1.5%	3.7%
17.00	534	138	5	5	0.9%	3.5%	230	87	3	3	1.4%	3.8%	211	78	3	3	1.6%	4.3%
18.00	381	107	5	5	1.3%	4.5%	192	58	3	3	1.7%	5.8%	148	52	3	3	2.2%	6.4%
19.00	253	90	3	3	1.0%	2.9%	139	74	3	3	1.9%	3.6%	135	59	3	3	2.0%	4.5%
20.00	188	69	3	3	1.4%	3.8%	111	62	3	3	2.4%	4.3%	104	55	3	3	2.5%	4.9%
21.00	154	52	4	4	2.4%	7.1%	98	45	4	4	3.7%	8.1%	83	39	4	4	4.4%	9.3%
22.00	118	37	4	4	3.1%	9.9%	76	28	4	4	4.8%	13.0%	82	20	4	4	4.5%	18.3%
23.00	148	46	0	0	0.0%	0.0%	82	29	0	0	0.0%	0.0%	79	25	0	0	0.0%	0.0%
12 hr	5964	2134	56	56	0.9%	2.6%	3420	1417	47	47	1.4%	3.3%	2394	1103	39	39	1.6%	3.5%
24 hr	8898	2914	69	69	0.8%	2.4%	5367	2091	60	60	1.1%	2.9%	3737	1595	51	51	1.4%	3.2%

**Link 3 - Barge Way East of Fleet End Roundabout**

**2024 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	45	23	0	0	0.0%	0.0%	95	19	0	0	0.0%	0.0%	19	15	0	0	0.0%	0.0%
01.00	43	22	0	0	0.0%	0.0%	39	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
02.00	62	24	0	0	0.0%	0.0%	40	30	0	0	0.0%	0.0%	18	15	0	0	0.0%	0.0%
03.00	75	26	0	0	0.0%	0.0%	24	17	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
04.00	116	32	0	0	0.0%	0.0%	43	25	0	0	0.0%	0.0%	25	15	0	0	0.0%	0.0%
05.00	231	41	0	0	0.0%	0.0%	102	22	0	0	0.0%	0.0%	60	16	0	0	0.0%	0.0%
06.00	284	59	0	0	0.0%	0.0%	119	44	0	0	0.0%	0.0%	64	18	0	0	0.0%	0.0%
07.00	330	90	5	5	1.5%	5.7%	154	60	5	5	3.3%	8.5%	86	31	4	4	4.2%	11.9%
08.00	329	98	5	5	1.6%	5.2%	162	64	5	5	3.2%	7.9%	109	28	4	4	3.3%	13.2%
09.00	249	101	4	4	1.7%	4.1%	143	64	4	4	2.9%	6.4%	76	28	3	3	3.5%	9.6%
10.00	238	103	4	4	1.7%	4.0%	131	59	4	4	3.1%	6.9%	76	28	3	3	3.5%	9.6%
11.00	213	100	4	4	1.9%	4.1%	117	45	4	4	3.5%	9.1%	70	30	3	3	3.8%	9.0%
12.00	247	101	4	4	1.7%	4.1%	109	40	4	4	3.8%	10.3%	77	29	3	3	3.4%	9.3%
13.00	286	103	5	5	1.7%	4.7%	133	32	3	3	2.5%	10.5%	113	28	3	3	2.9%	12.1%
14.00	263	113	5	5	1.8%	4.2%	110	31	3	3	3.0%	10.9%	93	28	3	3	3.6%	12.1%
15.00	236	110	5	5	2.2%	4.7%	97	35	4	4	3.8%	10.5%	79	29	4	4	4.6%	12.8%
16.00	268	89	5	5	1.9%	5.8%	104	32	4	4	3.5%	11.6%	98	31	4	4	3.7%	11.9%
17.00	308	68	5	5	1.6%	7.0%	115	29	3	3	2.9%	11.6%	124	28	3	3	2.7%	12.1%
18.00	159	42	5	5	3.0%	11.3%	67	17	3	3	5.0%	19.6%	64	16	3	3	5.2%	20.8%
19.00	93	33	3	3	2.8%	8.0%	52	15	3	3	5.1%	17.7%	55	15	3	3	4.9%	17.7%
20.00	82	32	3	3	3.2%	8.4%	34	17	3	3	7.7%	15.6%	33	15	3	3	8.0%	17.7%
21.00	77	24	4	4	4.8%	15.1%	36	15	4	4	10.0%	24.4%	35	17	4	4	10.3%	21.5%
22.00	50	26	4	4	7.3%	14.1%	21	15	4	4	17.2%	24.4%	28	16	4	4	12.9%	22.9%
23.00	45	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%	22	16	0	0	0.0%	0.0%
12 hr	3126	1119	56	56	1.8%	5.0%	1443	508	47	47	3.3%	9.3%	1066	330	39	39	3.6%	11.7%
24 hr	4329	1484	69	69	1.6%	4.6%	2064	765	60	60	2.9%	7.8%	1458	517	51	51	3.5%	9.9%

**Link 4 - A249 South of Swale Way Junction**

**2024 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	240	67	0	0	0.0%	0.0%	398	68	0	0	0.0%	0.0%	458	45	0	0	0.0%	0.0%
01.00	174	58	0	0	0.0%	0.0%	267	63	0	0	0.0%	0.0%	296	38	0	0	0.0%	0.0%
02.00	172	65	0	0	0.0%	0.0%	227	73	0	0	0.0%	0.0%	209	42	0	0	0.0%	0.0%
03.00	242	83	0	0	0.0%	0.0%	228	73	0	0	0.0%	0.0%	176	44	0	0	0.0%	0.0%
04.00	553	144	0	0	0.0%	0.0%	310	81	0	0	0.0%	0.0%	201	45	0	0	0.0%	0.0%
05.00	1343	244	0	0	0.0%	0.0%	700	145	0	0	0.0%	0.0%	414	80	0	0	0.0%	0.0%
06.00	2221	308	0	0	0.0%	0.0%	1050	186	0	0	0.0%	0.0%	634	114	0	0	0.0%	0.0%
07.00	3153	363	5	5	0.2%	1.4%	1443	217	5	5	0.3%	2.3%	822	124	4	4	0.4%	3.0%
08.00	2910	368	5	5	0.2%	1.4%	1839	229	5	5	0.3%	2.2%	1136	124	4	4	0.3%	3.0%
09.00	2217	381	4	4	0.2%	1.1%	2072	247	4	4	0.2%	1.6%	1645	165	3	3	0.2%	1.6%
10.00	2126	403	4	4	0.2%	1.0%	2367	236	4	4	0.2%	1.7%	2107	181	3	3	0.1%	1.5%
11.00	2160	393	4	4	0.2%	1.0%	2511	231	4	4	0.2%	1.8%	2330	180	3	3	0.1%	1.5%
12.00	2321	387	4	4	0.2%	1.0%	2703	207	4	4	0.1%	1.9%	2190	152	3	3	0.1%	1.7%
13.00	2358	404	5	5	0.2%	1.2%	2640	206	3	3	0.1%	1.6%	2154	161	3	3	0.2%	2.1%
14.00	2600	405	5	5	0.2%	1.2%	2422	192	3	3	0.1%	1.7%	2173	162	3	3	0.2%	2.0%
15.00	2884	400	5	5	0.2%	1.3%	2372	195	4	4	0.2%	1.9%	2142	174	4	4	0.2%	2.1%
16.00	3409	336	5	5	0.1%	1.5%	2313	169	4	4	0.2%	2.2%	2252	167	4	4	0.2%	2.2%
17.00	3694	296	5	5	0.1%	1.6%	2360	159	3	3	0.1%	2.1%	1973	154	3	3	0.2%	2.2%
18.00	2774	255	5	5	0.2%	1.8%	2038	134	3	3	0.2%	2.5%	1863	129	3	3	0.2%	2.6%
19.00	1851	189	3	3	0.1%	1.4%	1601	123	3	3	0.2%	2.2%	1548	115	3	3	0.2%	2.3%
20.00	1277	142	3	3	0.2%	1.9%	1164	91	3	3	0.2%	2.9%	1279	100	3	3	0.2%	2.7%
21.00	956	109	4	4	0.4%	3.4%	973	71	4	4	0.4%	5.2%	935	83	4	4	0.4%	4.4%
22.00	735	74	4	4	0.5%	5.0%	861	49	4	4	0.4%	7.5%	554	45	4	4	0.7%	8.2%
23.00	440	63	0	0	0.0%	0.0%	664	50	0	0	0.0%	0.0%	336	47	0	0	0.0%	0.0%
12 hr	32605	4392	55	55	0.2%	1.3%	27081	2422	47	47	0.2%	1.9%	22787	1873	39	39	0.2%	2.1%
24 hr	42808	5937	68	68	0.2%	1.1%	35525	3494	59	59	0.2%	1.7%	29826	2671	51	51	0.2%	1.9%

**Link 5 - A249 between the A2 and M2**

**2024 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	338	91	0	0	0.0%	0.0%	564	93	0	0	0.0%	0.0%	649	60	0	0	0.0%	0.0%
01.00	243	79	0	0	0.0%	0.0%	377	85	0	0	0.0%	0.0%	419	50	0	0	0.0%	0.0%
02.00	241	87	0	0	0.0%	0.0%	320	99	0	0	0.0%	0.0%	295	55	0	0	0.0%	0.0%
03.00	339	113	0	0	0.0%	0.0%	322	100	0	0	0.0%	0.0%	247	58	0	0	0.0%	0.0%
04.00	782	199	0	0	0.0%	0.0%	438	111	0	0	0.0%	0.0%	282	59	0	0	0.0%	0.0%
05.00	1878	328	0	0	0.0%	0.0%	976	190	0	0	0.0%	0.0%	567	97	0	0	0.0%	0.0%
06.00	3114	406	0	0	0.0%	0.0%	1459	237	0	0	0.0%	0.0%	863	134	0	0	0.0%	0.0%
07.00	4398	463	5	5	0.1%	1.1%	1997	268	5	5	0.3%	1.9%	1130	146	4	4	0.3%	2.5%
08.00	3983	469	5	5	0.1%	1.1%	2559	286	5	5	0.2%	1.8%	1572	148	4	4	0.2%	2.5%
09.00	3071	485	4	4	0.1%	0.8%	2923	308	4	4	0.1%	1.3%	2319	202	3	3	0.1%	1.3%
10.00	2936	512	4	4	0.1%	0.8%	3343	290	4	4	0.1%	1.4%	3005	223	3	3	0.1%	1.2%
11.00	2990	501	4	4	0.1%	0.8%	3561	283	4	4	0.1%	1.5%	3336	222	3	3	0.1%	1.2%
12.00	3219	500	4	4	0.1%	0.8%	3852	258	4	4	0.1%	1.6%	3142	192	3	3	0.1%	1.4%
13.00	3262	517	5	5	0.1%	0.9%	3740	251	3	3	0.1%	1.3%	3064	196	3	3	0.1%	1.7%
14.00	3602	523	5	5	0.1%	0.9%	3444	235	3	3	0.1%	1.4%	3082	202	3	3	0.1%	1.6%
15.00	4030	511	5	5	0.1%	1.0%	3367	235	4	4	0.1%	1.6%	3045	215	4	4	0.1%	1.7%
16.00	4772	426	5	5	0.1%	1.2%	3278	204	4	4	0.1%	1.8%	3195	211	4	4	0.1%	1.7%
17.00	5149	371	5	5	0.1%	1.3%	3351	191	3	3	0.1%	1.7%	2791	193	3	3	0.1%	1.7%
18.00	3911	323	5	5	0.1%	1.5%	2909	164	3	3	0.1%	2.0%	2658	166	3	3	0.1%	2.0%
19.00	2596	244	3	3	0.1%	1.1%	2253	153	3	3	0.1%	1.7%	2177	143	3	3	0.1%	1.9%
20.00	1790	180	3	3	0.1%	1.5%	1639	112	3	3	0.2%	2.4%	1803	123	3	3	0.1%	2.2%
21.00	1337	138	4	4	0.3%	2.6%	1370	87	4	4	0.3%	4.2%	1315	105	4	4	0.3%	3.5%
22.00	1030	100	4	4	0.4%	3.7%	1225	65	4	4	0.3%	5.6%	786	60	4	4	0.5%	6.1%
23.00	621	86	0	0	0.0%	0.0%	945	66	0	0	0.0%	0.0%	475	62	0	0	0.0%	0.0%
12 hr	45324	5600	56	56	0.1%	1.0%	38324	2974	47	47	0.1%	1.6%	32339	2316	39	39	0.1%	1.7%
24 hr	59632	7651	69	69	0.1%	0.9%	50213	4373	60	60	0.1%	1.4%	42217	3321	51	51	0.1%	1.5%

Link 6 - M2 West

2024 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	428	111	0	0	0.0%	0.0%	711	123	0	0	0.0%	0.0%	869	69	0	0	0.0%	0.0%
01.00	326	103	0	0	0.0%	0.0%	472	106	0	0	0.0%	0.0%	533	66	0	0	0.0%	0.0%
02.00	341	117	0	0	0.0%	0.0%	398	99	0	0	0.0%	0.0%	355	51	0	0	0.0%	0.0%
03.00	467	160	0	0	0.0%	0.0%	419	120	0	0	0.0%	0.0%	315	71	0	0	0.0%	0.0%
04.00	1075	267	0	0	0.0%	0.0%	566	151	0	0	0.0%	0.0%	338	62	0	0	0.0%	0.0%
05.00	2830	449	0	0	0.0%	0.0%	1199	213	0	0	0.0%	0.0%	687	98	0	0	0.0%	0.0%
06.00	4268	527	0	0	0.0%	0.0%	1804	269	0	0	0.0%	0.0%	1031	126	0	0	0.0%	0.0%
07.00	5707	549	2	2	0.0%	0.5%	2526	312	2	2	0.1%	0.8%	1411	140	2	2	0.2%	1.6%
08.00	5278	602	2	2	0.0%	0.4%	3240	318	2	2	0.1%	0.8%	1885	144	2	2	0.1%	1.6%
09.00	4374	627	2	2	0.0%	0.3%	3631	316	2	2	0.1%	0.6%	2784	192	2	2	0.1%	0.9%
10.00	4035	614	2	2	0.0%	0.3%	4151	308	2	2	0.0%	0.6%	3764	221	2	2	0.0%	0.7%
11.00	4028	598	2	2	0.0%	0.3%	4601	289	2	2	0.0%	0.7%	4302	249	2	2	0.0%	0.7%
12.00	4378	638	2	2	0.0%	0.3%	4825	266	2	2	0.0%	0.7%	4635	223	2	2	0.0%	0.7%
13.00	4543	660	2	2	0.1%	0.3%	4745	263	2	2	0.0%	0.8%	4402	234	2	2	0.0%	0.9%
14.00	4834	659	2	2	0.0%	0.3%	4370	257	2	2	0.0%	0.8%	4011	232	2	2	0.1%	0.9%
15.00	5340	641	2	2	0.0%	0.4%	4196	240	2	2	0.1%	0.9%	3831	222	2	2	0.1%	1.0%
16.00	6281	519	2	2	0.0%	0.5%	4375	224	2	2	0.1%	1.0%	4240	211	2	2	0.1%	1.1%
17.00	6679	425	2	2	0.0%	0.5%	4156	192	2	2	0.0%	1.1%	3860	198	2	2	0.1%	1.0%
18.00	4988	351	2	2	0.0%	0.7%	3665	172	2	2	0.1%	1.2%	3400	157	2	2	0.1%	1.3%
19.00	3247	272	2	2	0.1%	0.6%	2806	140	2	2	0.1%	1.2%	2808	141	2	2	0.1%	1.2%
20.00	2271	187	2	2	0.1%	0.9%	2029	102	2	2	0.1%	1.6%	2121	103	2	2	0.1%	1.6%
21.00	1668	132	2	2	0.1%	1.7%	1577	83	2	2	0.1%	2.7%	1505	88	2	2	0.1%	2.6%
22.00	1339	112	2	2	0.2%	2.0%	1568	63	2	2	0.1%	3.6%	970	62	2	2	0.2%	3.7%
23.00	800	108	0	0	0.0%	0.0%	1213	69	0	0	0.0%	0.0%	556	79	0	0	0.0%	0.0%
12 hr	60465	6882	27	27	0.0%	0.4%	48483	3159	25	25	0.1%	0.8%	42524	2424	24	24	0.1%	1.0%
24 hr	79526	9426	35	35	0.0%	0.4%	63245	4696	33	33	0.1%	0.7%	54612	3438	32	32	0.1%	0.9%

Link 7 - M2 East

2024 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.0%	0.0%	650	110	0	0	0.0%	0.0%	795	61	0	0	0.0%	0.0%
01.00	297	92	0	0	0.0%	0.0%	430	94	0	0	0.0%	0.0%	487	58	0	0	0.0%	0.0%
02.00	311	105	0	0	0.0%	0.0%	363	88	0	0	0.0%	0.0%	323	44	0	0	0.0%	0.0%
03.00	426	144	0	0	0.0%	0.0%	382	108	0	0	0.0%	0.0%	287	63	0	0	0.0%	0.0%
04.00	984	242	0	0	0.0%	0.0%	517	136	0	0	0.0%	0.0%	308	54	0	0	0.0%	0.0%
05.00	2575	395	0	0	0.0%	0.0%	1082	178	0	0	0.0%	0.0%	611	72	0	0	0.0%	0.0%
06.00	3882	453	0	0	0.0%	0.0%	1623	217	0	0	0.0%	0.0%	913	86	0	0	0.0%	0.0%
07.00	5181	471	0	0	0.0%	0.1%	2281	255	0	0	0.0%	0.2%	1256	98	0	0	0.0%	0.3%
08.00	4760	521	0	0	0.0%	0.1%	2932	262	0	0	0.0%	0.2%	1687	103	0	0	0.0%	0.2%
09.00	3956	539	0	0	0.0%	0.1%	3286	256	0	0	0.0%	0.1%	2510	142	0	0	0.0%	0.1%
10.00	3642	525	0	0	0.0%	0.1%	3759	246	0	0	0.0%	0.1%	3398	165	0	0	0.0%	0.1%
11.00	3638	512	0	0	0.0%	0.1%	4173	229	0	0	0.0%	0.2%	3893	192	0	0	0.0%	0.1%
12.00	3964	558	0	0	0.0%	0.1%	4385	219	0	0	0.0%	0.2%	4208	179	0	0	0.0%	0.1%
13.00	4105	569	0	0	0.0%	0.1%	4299	207	0	0	0.0%	0.1%	3983	180	0	0	0.0%	0.1%
14.00	4376	573	0	0	0.0%	0.1%	3960	206	0	0	0.0%	0.1%	3635	182	0	0	0.0%	0.1%
15.00	4836	552	0	0	0.0%	0.1%	3797	185	0	0	0.0%	0.1%	3464	169	0	0	0.0%	0.1%
16.00	5703	446	0	0	0.0%	0.1%	3971	177	0	0	0.0%	0.1%	3849	165	0	0	0.0%	0.1%
17.00	6058	361	0	0	0.0%	0.1%	3768	150	0	0	0.0%	0.1%	3501	155	0	0	0.0%	0.1%
18.00	4542	305	0	0	0.0%	0.1%	3333	142	0	0	0.0%	0.2%	3093	128	0	0	0.0%	0.2%
19.00	2953	228	0	0	0.0%	0.1%	2552	107	0	0	0.0%	0.2%	2553	108	0	0	0.0%	0.2%
20.00	2064	154	0	0	0.0%	0.1%	1844	76	0	0	0.0%	0.2%	1928	76	0	0	0.0%	0.2%
21.00	1516	108	0	0	0.0%	0.2%	1433	63	0	0	0.0%	0.4%	1367	68	0	0	0.0%	0.4%
22.00	1223	100	0	0	0.0%	0.2%	1436	55	0	0	0.0%	0.4%	887	54	0	0	0.0%	0.5%
23.00	731	96	0	0	0.0%	0.0%	1111	60	0	0	0.0%	0.0%	508	70	0	0	0.0%	0.0%
12 hr	54761	5931	5	5	0.0%	0.1%	43944	2534	4	4	0.0%	0.1%	38476	1859	3	3	0.0%	0.1%
24 hr	72110	8146	6	6	0.0%	0.1%	57367	3827	5	5	0.0%	0.1%	49443	2672	3	3	0.0%	0.1%

**Link 8 - Swale Way north of Reams Way Junction**

**2024 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	644	51	0	0	0.0%	0.0%	240	19	0	0	0.0%	0.0%	129	12	0	0	0.0%	0.0%
07.00	1414	85	0	0	0.0%	0.0%	349	22	0	0	0.0%	0.0%	154	12	0	0	0.0%	0.0%
08.00	1499	83	0	0	0.0%	0.0%	450	30	0	0	0.0%	0.0%	153	14	0	0	0.0%	0.0%
09.00	950	99	0	0	0.0%	0.0%	571	31	0	0	0.0%	0.0%	322	13	0	0	0.0%	0.0%
10.00	839	106	0	0	0.0%	0.0%	704	34	0	0	0.0%	0.0%	437	18	0	0	0.0%	0.0%
11.00	830	100	0	0	0.0%	0.0%	770	23	0	0	0.0%	0.0%	529	24	0	0	0.0%	0.0%
12.00	932	102	0	0	0.0%	0.0%	732	25	0	0	0.0%	0.0%	556	19	0	0	0.0%	0.0%
13.00	900	93	0	0	0.0%	0.0%	692	33	0	0	0.0%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	0	0	0.0%	0.0%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1188	86	0	0	0.0%	0.0%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	0	0	0.0%	0.0%	553	20	0	0	0.0%	0.0%	539	17	0	0	0.0%	0.0%
17.00	1299	61	0	0	0.0%	0.0%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	0	0	0.0%	0.0%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	483	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	259	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.0%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13175	1052	0	0	0.0%	0.0%	7131	304	0	0	0.0%	0.0%	5243	184	0	0	0.0%	0.0%
24 hr	16116	1362	0	0	0.0%	0.0%	8933	431	0	0	0.0%	0.0%	6617	280	0	0	0.0%	0.0%



**Link 9 - Swale Way south of Reams Way Junction**

**2024 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	656	57	0	0	0.0%	0.0%	273	20	0	0	0.0%	0.0%	133	13	0	0	0.0%	0.0%
07.00	1416	85	0	0	0.0%	0.0%	347	27	0	0	0.0%	0.0%	188	12	0	0	0.0%	0.0%
08.00	1432	94	0	0	0.0%	0.0%	484	26	0	0	0.0%	0.0%	155	7	0	0	0.0%	0.0%
09.00	917	105	0	0	0.0%	0.0%	575	35	0	0	0.0%	0.0%	324	15	0	0	0.0%	0.0%
10.00	828	107	0	0	0.0%	0.0%	716	25	0	0	0.0%	0.0%	474	15	0	0	0.0%	0.0%
11.00	850	108	0	0	0.0%	0.0%	775	35	0	0	0.0%	0.0%	506	17	0	0	0.0%	0.0%
12.00	917	98	0	0	0.0%	0.0%	749	34	0	0	0.0%	0.0%	522	15	0	0	0.0%	0.0%
13.00	950	92	0	0	0.0%	0.0%	622	32	0	0	0.0%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	0	0	0.0%	0.0%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	0	0	0.0%	0.0%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1433	82	0	0	0.0%	0.0%	547	19	0	0	0.0%	0.0%	440	14	0	0	0.0%	0.0%
17.00	1370	64	0	0	0.0%	0.0%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	0	0	0.0%	0.0%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	477	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.0%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13210	1093	0	0	0.0%	0.0%	6976	316	0	0	0.0%	0.0%	4860	194	0	0	0.0%	0.0%
24 hr	16134	1403	0	0	0.0%	0.0%	8849	425	0	0	0.0%	0.0%	6172	278	0	0	0.0%	0.0%

**Link 10 - Swale Way south of Ridham Avenue Roundabout**

**2024 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	565	37	0	0	0.0%	0.0%	197	12	0	0	0.0%	0.0%	99	5	0	0	0.0%	0.0%
07.00	1313	67	0	0	0.0%	0.0%	319	16	0	0	0.0%	0.0%	138	5	0	0	0.0%	0.0%
08.00	1401	71	0	0	0.0%	0.0%	421	17	0	0	0.0%	0.0%	139	4	0	0	0.0%	0.0%
09.00	869	83	0	0	0.0%	0.0%	542	18	0	0	0.0%	0.0%	312	4	0	0	0.0%	0.0%
10.00	741	88	0	0	0.0%	0.0%	681	16	0	0	0.0%	0.0%	404	8	0	0	0.0%	0.0%
11.00	740	75	0	0	0.0%	0.0%	764	11	0	0	0.0%	0.0%	518	9	0	0	0.0%	0.0%
12.00	823	81	0	0	0.0%	0.0%	717	15	0	0	0.0%	0.0%	540	11	0	0	0.0%	0.0%
13.00	833	74	0	0	0.0%	0.0%	658	16	0	0	0.0%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	77	0	0	0.0%	0.0%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	0	0	0.0%	0.0%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	0	0	0.0%	0.0%	532	13	0	0	0.0%	0.0%	521	11	0	0	0.0%	0.0%
17.00	1242	56	0	0	0.0%	0.0%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	50	0	0	0.0%	0.0%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	431	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.0%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12154	863	0	0	0.0%	0.0%	6806	170	0	0	0.0%	0.0%	5023	84	0	0	0.0%	0.0%
24 hr	14591	1055	0	0	0.0%	0.0%	8379	245	0	0	0.0%	0.0%	6218	120	0	0	0.0%	0.0%

**Link 11 - A249 North of Swale Way Junction**

**2024 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.0%	0.0%	436	30	0	0	0.0%	0.0%
07.00	3012	191	0	0	0.0%	0.0%	1139	82	0	0	0.0%	0.0%	581	26	0	0	0.0%	0.0%
08.00	2710	235	0	0	0.0%	0.0%	1543	83	0	0	0.0%	0.0%	872	31	0	0	0.0%	0.0%
09.00	2053	238	0	0	0.0%	0.0%	1887	76	0	0	0.0%	0.1%	1368	48	0	0	0.0%	0.0%
10.00	1965	234	0	0	0.0%	0.0%	2223	85	0	0	0.0%	0.0%	2020	41	0	0	0.0%	0.0%
11.00	2067	230	0	0	0.0%	0.0%	2492	71	0	0	0.0%	0.1%	2331	38	0	0	0.0%	0.0%
12.00	2199	227	0	0	0.0%	0.0%	2640	63	0	0	0.0%	0.1%	2543	44	0	0	0.0%	0.0%
13.00	2235	222	0	0	0.0%	0.0%	2540	61	0	0	0.0%	0.0%	2417	47	0	0	0.0%	0.0%
14.00	2350	239	0	0	0.0%	0.0%	2406	57	0	0	0.0%	0.0%	2134	42	0	0	0.0%	0.0%
15.00	2574	205	0	0	0.0%	0.0%	2333	45	0	0	0.0%	0.0%	2049	45	0	0	0.0%	0.0%
16.00	3164	170	0	0	0.0%	0.0%	2290	49	0	0	0.0%	0.0%	2114	41	0	0	0.0%	0.0%
17.00	3303	126	0	0	0.0%	0.0%	2189	36	0	0	0.0%	0.0%	1964	39	0	0	0.0%	0.0%
18.00	2284	83	0	0	0.0%	0.0%	1847	36	0	0	0.0%	0.0%	1763	43	0	0	0.0%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	0	0	0.0%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	0	0	0.0%	0.0%	822	25	0	0	0.0%	0.0%	704	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.0%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.0%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29916	2398	0	0	0.0%	0.0%	25528	742	0	0	0.0%	0.0%	22156	485	0	0	0.0%	0.0%
24 hr	37860	3121	0	0	0.0%	0.0%	32342	1117	0	0	0.0%	0.0%	27697	709	0	0	0.0%	0.0%

**APPENDIX Z: 2024 BASELINE AND WKN OPERATIONAL  
PERCENTAGE IMPACT TABLE**

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**Link 1 - Swale Way East of B2005 Groveshurst Roundabout**

**2024 Baseline + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	165	56	0	0	0.0%	0.0%	184	50	0	0	0.0%	0.0%	189	20	0	0	0.0%	0.0%
01.00	153	51	0	0	0.0%	0.0%	163	60	0	0	0.0%	0.0%	162	19	0	0	0.0%	0.0%
02.00	169	47	0	0	0.0%	0.0%	133	50	0	0	0.0%	0.0%	102	18	0	0	0.0%	0.0%
03.00	247	71	0	0	0.0%	0.0%	170	51	0	0	0.0%	0.0%	87	20	0	0	0.0%	0.0%
04.00	371	85	0	0	0.0%	0.0%	209	66	0	0	0.0%	0.0%	105	21	0	0	0.0%	0.0%
05.00	950	140	0	0	0.0%	0.0%	535	98	0	0	0.0%	0.0%	294	52	0	0	0.0%	0.0%
06.00	1125	194	11	0	1.0%	0.0%	527	139	11	0	2.1%	0.0%	256	80	11	0	4.3%	0.0%
07.00	1914	241	43	19	2.2%	7.7%	706	153	43	19	6.1%	12.1%	293	79	38	13	12.9%	17.0%
08.00	2229	231	19	19	0.8%	8.1%	741	134	19	19	2.5%	13.8%	315	75	13	13	4.2%	17.8%
09.00	1350	254	18	18	1.3%	6.9%	803	157	18	18	2.2%	11.2%	325	83	12	12	3.8%	14.9%
10.00	1232	275	18	18	1.4%	6.4%	911	158	18	18	1.9%	11.1%	344	91	12	12	3.6%	13.5%
11.00	1258	262	18	18	1.4%	6.7%	940	153	18	18	1.9%	11.5%	564	89	12	12	2.2%	13.9%
12.00	1377	247	18	18	1.3%	7.1%	962	130	18	18	1.8%	13.5%	864	73	12	12	1.4%	17.0%
13.00	1494	270	13	13	0.9%	5.0%	924	126	8	8	0.9%	6.5%	532	87	8	8	1.5%	9.4%
14.00	1475	262	13	13	0.9%	5.1%	904	123	8	8	0.9%	6.7%	545	81	8	8	1.5%	10.0%
15.00	1596	258	19	19	1.2%	7.2%	916	129	13	13	1.5%	10.4%	546	84	13	13	2.4%	16.0%
16.00	1725	215	30	19	1.7%	8.7%	823	114	24	13	3.0%	11.7%	665	71	24	13	3.7%	18.9%
17.00	1837	179	24	13	1.3%	7.5%	839	99	19	8	2.3%	8.3%	695	68	19	8	2.8%	12.1%
18.00	1214	141	16	13	1.3%	9.5%	695	77	11	8	1.5%	10.7%	456	46	11	8	2.3%	17.9%
19.00	734	102	23	12	3.2%	12.2%	555	73	23	12	4.2%	16.9%	521	56	23	12	4.5%	22.0%
20.00	549	98	12	12	2.3%	12.6%	406	74	12	12	3.0%	16.8%	369	49	12	12	3.4%	25.3%
21.00	394	73	13	13	3.4%	18.3%	322	54	13	13	4.1%	24.7%	231	38	13	13	5.8%	34.9%
22.00	309	54	13	13	4.3%	24.7%	285	30	13	13	4.7%	44.4%	314	15	13	13	4.3%	89.3%
23.00	203	51	0	0	0.0%	0.0%	209	34	0	0	0.0%	0.0%	202	15	0	0	0.0%	0.0%
12 hr	18700	2835	247	198	1.3%	7.0%	10164	1552	216	167	2.1%	10.8%	6144	925	185	136	3.0%	14.7%
24 hr	24069	3857	321	250	1.3%	6.5%	13862	2333	289	218	2.1%	9.4%	8974	1328	258	187	2.9%	14.1%

Link 2 - Barge Way North of Swale Roundabout

2024 Baseline + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	133	40	0	0	0.0%	0.0%	138	36	0	0	0.0%	0.0%	105	31	0	0	0.0%	0.0%
01.00	136	37	0	0	0.0%	0.0%	112	31	0	0	0.0%	0.0%	92	30	0	0	0.0%	0.0%
02.00	174	38	0	0	0.0%	0.0%	135	40	0	0	0.0%	0.0%	93	27	0	0	0.0%	0.0%
03.00	228	56	0	0	0.0%	0.0%	171	48	0	0	0.0%	0.0%	86	30	0	0	0.0%	0.0%
04.00	313	68	0	0	0.0%	0.0%	216	62	0	0	0.0%	0.0%	109	33	0	0	0.0%	0.0%
05.00	550	104	0	0	0.0%	0.0%	351	90	0	0	0.0%	0.0%	199	60	0	0	0.0%	0.0%
06.00	539	143	11	0	2.0%	0.0%	318	128	11	0	3.5%	0.0%	177	82	11	0	6.2%	0.0%
07.00	544	172	43	19	8.0%	10.9%	330	138	43	19	13.1%	13.6%	178	95	38	13	21.4%	14.1%
08.00	551	170	19	19	3.4%	11.0%	314	141	19	19	6.0%	13.3%	190	84	13	13	7.0%	15.9%
09.00	459	188	18	18	3.9%	9.4%	301	147	18	18	5.9%	12.1%	172	95	12	12	7.2%	13.0%
10.00	470	194	18	18	3.8%	9.1%	312	136	18	18	5.7%	13.0%	176	99	12	12	7.0%	12.5%
11.00	427	193	18	18	4.2%	9.2%	283	142	18	18	6.3%	12.5%	201	112	12	12	6.2%	11.0%
12.00	441	177	18	18	4.0%	10.0%	262	104	18	18	6.8%	17.0%	236	83	12	12	5.2%	15.0%
13.00	540	202	14	14	2.5%	6.7%	326	113	8	8	2.5%	7.3%	236	103	8	8	3.5%	8.0%
14.00	535	211	14	14	2.5%	6.4%	296	125	8	8	2.8%	6.6%	208	101	8	8	3.9%	8.1%
15.00	532	209	19	19	3.5%	9.0%	311	134	13	13	4.3%	10.0%	200	104	13	13	6.7%	12.9%
16.00	549	174	30	19	5.4%	10.8%	263	94	24	13	9.3%	14.3%	238	100	24	13	10.2%	13.4%
17.00	534	138	25	14	4.6%	9.8%	230	87	19	8	8.3%	9.4%	211	78	19	8	9.1%	10.6%
18.00	381	107	16	14	4.2%	12.7%	192	58	11	8	5.6%	14.2%	148	52	11	8	7.2%	15.9%
19.00	253	90	23	12	9.2%	13.7%	139	74	23	12	16.8%	16.7%	135	59	23	12	17.3%	20.9%
20.00	188	69	12	12	6.6%	17.9%	111	62	12	12	11.2%	20.0%	104	55	12	12	11.8%	22.6%
21.00	154	52	13	13	8.7%	25.9%	98	45	13	13	13.6%	29.6%	83	39	13	13	16.1%	34.1%
22.00	118	37	13	13	11.4%	36.1%	76	28	13	13	17.6%	47.5%	82	20	13	13	16.3%	66.8%
23.00	148	46	0	0	0.0%	0.0%	82	29	0	0	0.0%	0.0%	79	25	0	0	0.0%	0.0%
12 hr	5964	2134	249	200	4.2%	9.4%	3420	1417	217	168	6.3%	11.8%	2394	1103	185	136	7.7%	12.3%
24 hr	8898	2914	323	252	3.6%	8.6%	5367	2091	291	219	5.4%	10.5%	3737	1595	258	187	6.9%	11.7%

**Link 3 - Barge Way East of Fleet End Roundabout**

**2024 Baseline + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	45	23	0	0	0.0%	0.0%	95	19	0	0	0.0%	0.0%	19	15	0	0	0.0%	0.0%
01.00	43	22	0	0	0.0%	0.0%	39	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
02.00	62	24	0	0	0.0%	0.0%	40	30	0	0	0.0%	0.0%	18	15	0	0	0.0%	0.0%
03.00	75	26	0	0	0.0%	0.0%	24	17	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
04.00	116	32	0	0	0.0%	0.0%	43	25	0	0	0.0%	0.0%	25	15	0	0	0.0%	0.0%
05.00	231	41	0	0	0.0%	0.0%	102	22	0	0	0.0%	0.0%	60	16	0	0	0.0%	0.0%
06.00	284	59	11	0	3.9%	0.0%	119	44	11	0	9.3%	0.0%	64	18	11	0	17.3%	0.0%
07.00	330	90	43	19	13.1%	20.7%	154	60	43	19	28.1%	31.0%	86	31	38	13	44.0%	43.6%
08.00	329	98	19	19	5.7%	19.0%	162	64	19	19	11.6%	29.1%	109	28	13	13	12.2%	48.4%
09.00	249	101	18	18	7.1%	17.6%	143	64	18	18	12.4%	27.5%	76	28	12	12	16.4%	44.8%
10.00	238	103	18	18	7.5%	17.1%	131	59	18	18	13.5%	29.9%	76	28	12	12	16.2%	44.8%
11.00	213	100	18	18	8.3%	17.7%	117	45	18	18	15.2%	39.2%	70	30	12	12	17.8%	41.8%
12.00	247	101	18	18	7.2%	17.5%	109	40	18	18	16.3%	44.2%	77	29	12	12	16.1%	43.2%
13.00	286	103	14	14	4.7%	13.2%	133	32	8	8	6.2%	25.9%	113	28	8	8	7.2%	29.7%
14.00	263	113	14	14	5.1%	12.0%	110	31	8	8	7.4%	26.7%	93	28	8	8	8.8%	29.7%
15.00	236	110	19	19	7.9%	17.1%	97	35	13	13	13.7%	38.6%	79	29	13	13	16.9%	46.7%
16.00	268	89	30	19	11.1%	21.2%	104	32	24	13	23.4%	42.2%	98	31	24	13	24.8%	43.6%
17.00	308	68	25	14	8.0%	19.9%	115	29	19	8	16.7%	28.6%	124	28	19	8	15.4%	29.7%
18.00	159	42	16	14	10.1%	31.9%	67	17	11	8	16.0%	48.2%	64	16	11	8	16.8%	51.2%
19.00	93	33	23	12	25.1%	37.1%	52	15	23	12	45.3%	82.7%	55	15	23	12	42.8%	82.7%
20.00	82	32	12	12	15.0%	39.2%	34	17	12	12	36.0%	72.8%	33	15	12	12	37.1%	82.7%
21.00	77	24	13	13	17.4%	55.1%	36	15	13	13	36.7%	89.3%	35	17	13	13	37.8%	78.7%
22.00	50	26	13	13	26.8%	51.6%	21	15	13	13	63.0%	89.3%	28	16	13	13	47.2%	83.7%
23.00	45	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%	22	16	0	0	0.0%	0.0%
12 hr	3126	1119	249	200	8.0%	17.9%	1443	508	217	168	15.0%	33.0%	1066	330	185	136	17.3%	41.2%
24 hr	4329	1484	323	252	7.5%	17.0%	2064	765	291	219	14.1%	28.7%	1458	517	258	187	17.7%	36.2%

Link 4 - A249 South of Swale Way Junction

2024 Baseline + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	240	67	0	0	0.0%	0.0%	398	68	0	0	0.0%	0.0%	458	45	0	0	0.0%	0.0%
01.00	174	58	0	0	0.0%	0.0%	267	63	0	0	0.0%	0.0%	296	38	0	0	0.0%	0.0%
02.00	172	65	0	0	0.0%	0.0%	227	73	0	0	0.0%	0.0%	209	42	0	0	0.0%	0.0%
03.00	242	83	0	0	0.0%	0.0%	228	73	0	0	0.0%	0.0%	176	44	0	0	0.0%	0.0%
04.00	553	144	0	0	0.0%	0.0%	310	81	0	0	0.0%	0.0%	201	45	0	0	0.0%	0.0%
05.00	1343	244	0	0	0.0%	0.0%	700	145	0	0	0.0%	0.0%	414	80	0	0	0.0%	0.0%
06.00	2221	308	11	0	0.5%	0.0%	1050	186	11	0	1.0%	0.0%	634	114	11	0	1.7%	0.0%
07.00	3153	363	42	18	1.3%	5.1%	1443	217	42	18	2.9%	8.5%	822	124	37	13	4.5%	10.8%
08.00	2910	368	18	18	0.6%	5.0%	1839	229	18	18	1.0%	8.1%	1136	124	13	13	1.2%	10.8%
09.00	2217	381	17	17	0.8%	4.6%	2072	247	17	17	0.8%	7.1%	1645	165	12	12	0.8%	7.5%
10.00	2126	403	17	17	0.8%	4.3%	2367	236	17	17	0.7%	7.4%	2107	181	12	12	0.6%	6.8%
11.00	2160	393	17	17	0.8%	4.4%	2511	231	17	17	0.7%	7.6%	2330	180	12	12	0.5%	6.9%
12.00	2321	387	17	17	0.8%	4.5%	2703	207	17	17	0.6%	8.4%	2190	152	12	12	0.6%	8.1%
13.00	2358	404	13	13	0.6%	3.3%	2640	206	8	8	0.3%	4.0%	2154	161	8	8	0.4%	5.1%
14.00	2600	405	13	13	0.5%	3.3%	2422	192	8	8	0.3%	4.3%	2173	162	8	8	0.4%	5.0%
15.00	2884	400	18	18	0.6%	4.6%	2372	195	13	13	0.6%	6.9%	2142	174	13	13	0.6%	7.7%
16.00	3409	336	29	18	0.8%	5.5%	2313	169	24	13	1.0%	7.9%	2252	167	24	13	1.1%	8.0%
17.00	3694	296	24	13	0.6%	4.5%	2360	159	19	8	0.8%	5.1%	1973	154	19	8	0.9%	5.3%
18.00	2774	255	16	13	0.6%	5.2%	2038	134	11	8	0.5%	6.1%	1863	129	11	8	0.6%	6.4%
19.00	1851	189	23	12	1.2%	6.5%	1601	123	23	12	1.4%	10.1%	1548	115	23	12	1.5%	10.7%
20.00	1277	142	12	12	1.0%	8.7%	1164	91	12	12	1.1%	13.5%	1279	100	12	12	1.0%	12.4%
21.00	956	109	13	13	1.4%	12.3%	973	71	13	13	1.4%	18.8%	935	83	13	13	1.4%	16.0%
22.00	735	74	13	13	1.8%	18.1%	861	49	13	13	1.6%	27.3%	554	45	13	13	2.4%	29.8%
23.00	440	63	0	0	0.0%	0.0%	664	50	0	0	0.0%	0.0%	336	47	0	0	0.0%	0.0%
12 hr	32605	4392	243	197	0.7%	4.5%	27081	2422	213	166	0.8%	6.9%	22787	1873	183	136	0.8%	7.2%
24 hr	42808	5937	316	248	0.7%	4.2%	35525	3494	285	218	0.8%	6.2%	29826	2671	255	187	0.9%	7.0%



**Link 5 - A249 between the A2 and M2**

**2024 Baseline + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	338	91	0	0	0.0%	0.0%	564	93	0	0	0.0%	0.0%	649	60	0	0	0.0%	0.0%
01.00	243	79	0	0	0.0%	0.0%	377	85	0	0	0.0%	0.0%	419	50	0	0	0.0%	0.0%
02.00	241	87	0	0	0.0%	0.0%	320	99	0	0	0.0%	0.0%	295	55	0	0	0.0%	0.0%
03.00	339	113	0	0	0.0%	0.0%	322	100	0	0	0.0%	0.0%	247	58	0	0	0.0%	0.0%
04.00	782	199	0	0	0.0%	0.0%	438	111	0	0	0.0%	0.0%	282	59	0	0	0.0%	0.0%
05.00	1878	328	0	0	0.0%	0.0%	976	190	0	0	0.0%	0.0%	567	97	0	0	0.0%	0.0%
06.00	3114	406	10	0	0.3%	0.0%	1459	237	10	0	0.7%	0.0%	863	134	10	0	1.2%	0.0%
07.00	4398	463	41	19	0.9%	4.0%	1997	268	41	19	2.1%	7.0%	1130	146	36	13	3.2%	9.1%
08.00	3983	469	19	19	0.5%	4.0%	2559	286	19	19	0.7%	6.5%	1572	148	13	13	0.9%	9.0%
09.00	3071	485	18	18	0.6%	3.7%	2923	308	18	18	0.6%	5.8%	2319	202	12	12	0.5%	6.1%
10.00	2936	512	18	18	0.6%	3.5%	3343	290	18	18	0.5%	6.1%	3005	223	12	12	0.4%	5.5%
11.00	2990	501	18	18	0.6%	3.5%	3561	283	18	18	0.5%	6.3%	3336	222	12	12	0.4%	5.6%
12.00	3219	500	18	18	0.6%	3.6%	3852	258	18	18	0.5%	6.9%	3142	192	12	12	0.4%	6.4%
13.00	3262	517	14	14	0.4%	2.6%	3740	251	8	8	0.2%	3.3%	3064	196	8	8	0.3%	4.2%
14.00	3602	523	14	14	0.4%	2.6%	3444	235	8	8	0.2%	3.5%	3082	202	8	8	0.3%	4.1%
15.00	4030	511	19	19	0.5%	3.7%	3367	235	13	13	0.4%	5.7%	3045	215	13	13	0.4%	6.2%
16.00	4772	426	29	19	0.6%	4.4%	3278	204	23	13	0.7%	6.6%	3195	211	23	13	0.7%	6.3%
17.00	5149	371	24	14	0.5%	3.7%	3351	191	18	8	0.5%	4.3%	2791	193	18	8	0.7%	4.2%
18.00	3911	323	16	14	0.4%	4.2%	2909	164	11	8	0.4%	5.0%	2658	166	11	8	0.4%	4.9%
19.00	2596	244	22	12	0.9%	5.1%	2253	153	22	12	1.0%	8.1%	2177	143	22	12	1.0%	8.7%
20.00	1790	180	12	12	0.7%	6.9%	1639	112	12	12	0.8%	11.0%	1803	123	12	12	0.7%	10.0%
21.00	1337	138	13	13	1.0%	9.7%	1370	87	13	13	1.0%	15.3%	1315	105	13	13	1.0%	12.8%
22.00	1030	100	13	13	1.3%	13.4%	1225	65	13	13	1.1%	20.4%	786	60	13	13	1.7%	22.5%
23.00	621	86	0	0	0.0%	0.0%	945	66	0	0	0.0%	0.0%	475	62	0	0	0.0%	0.0%
12 hr	45324	5600	245	200	0.5%	3.6%	38324	2974	213	168	0.6%	5.6%	32339	2316	180	136	0.6%	5.9%
24 hr	59632	7651	317	252	0.5%	3.3%	50213	4373	284	219	0.6%	5.0%	42217	3321	252	187	0.6%	5.6%

Link 6 - M2 West

2024 Baseline + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	428	111	0	0	0.0%	0.0%	711	123	0	0	0.0%	0.0%	869	69	0	0	0.0%	0.0%
01.00	326	103	0	0	0.0%	0.0%	472	106	0	0	0.0%	0.0%	533	66	0	0	0.0%	0.0%
02.00	341	117	0	0	0.0%	0.0%	398	99	0	0	0.0%	0.0%	355	51	0	0	0.0%	0.0%
03.00	467	160	0	0	0.0%	0.0%	419	120	0	0	0.0%	0.0%	315	71	0	0	0.0%	0.0%
04.00	1075	267	0	0	0.0%	0.0%	566	151	0	0	0.0%	0.0%	338	62	0	0	0.0%	0.0%
05.00	2830	449	0	0	0.0%	0.0%	1199	213	0	0	0.0%	0.0%	687	98	0	0	0.0%	0.0%
06.00	4268	527	3	0	0.1%	0.0%	1804	269	3	0	0.2%	0.0%	1031	126	3	0	0.3%	0.0%
07.00	5707	549	16	9	0.3%	1.7%	2526	312	16	9	0.6%	2.9%	1411	140	15	8	1.1%	5.9%
08.00	5278	602	9	9	0.2%	1.5%	3240	318	9	9	0.3%	2.9%	1885	144	8	8	0.4%	5.7%
09.00	4374	627	9	9	0.2%	1.4%	3631	316	9	9	0.2%	2.7%	2784	192	8	8	0.3%	4.0%
10.00	4035	614	9	9	0.2%	1.4%	4151	308	9	9	0.2%	2.8%	3764	221	8	8	0.2%	3.5%
11.00	4028	598	9	9	0.2%	1.4%	4601	289	9	9	0.2%	3.0%	4302	249	8	8	0.2%	3.1%
12.00	4378	638	9	9	0.2%	1.3%	4825	266	9	9	0.2%	3.2%	4635	223	8	8	0.2%	3.4%
13.00	4543	660	6	6	0.1%	0.9%	4745	263	5	5	0.1%	1.9%	4402	234	5	5	0.1%	2.2%
14.00	4834	659	6	6	0.1%	0.9%	4370	257	5	5	0.1%	2.0%	4011	232	5	5	0.1%	2.2%
15.00	5340	641	9	9	0.2%	1.4%	4196	240	8	8	0.2%	3.4%	3831	222	8	8	0.2%	3.7%
16.00	6281	519	12	9	0.2%	1.8%	4375	224	11	8	0.3%	3.7%	4240	211	11	8	0.3%	3.9%
17.00	6679	425	9	6	0.1%	1.4%	4156	192	8	5	0.2%	2.6%	3860	198	8	5	0.2%	2.5%
18.00	4988	351	7	6	0.1%	1.7%	3665	172	6	5	0.2%	2.9%	3400	157	6	5	0.2%	3.2%
19.00	3247	272	11	8	0.3%	2.8%	2806	140	11	8	0.4%	5.5%	2808	141	11	8	0.4%	5.4%
20.00	2271	187	8	8	0.3%	4.1%	2029	102	8	8	0.4%	7.5%	2121	103	8	8	0.4%	7.4%
21.00	1668	132	8	8	0.5%	6.3%	1577	83	8	8	0.5%	10.0%	1505	88	8	8	0.5%	9.4%
22.00	1339	112	8	8	0.6%	7.4%	1568	63	8	8	0.5%	13.0%	970	62	8	8	0.9%	13.4%
23.00	800	108	0	0	0.0%	0.0%	1213	69	0	0	0.0%	0.0%	556	79	0	0	0.0%	0.0%
12 hr	60465	6882	108	94	0.2%	1.4%	48483	3159	103	89	0.2%	2.8%	42524	2424	97	84	0.2%	3.5%
24 hr	79526	9426	146	126	0.2%	1.3%	63245	4696	140	121	0.2%	2.6%	54612	3438	135	115	0.2%	3.4%

Link 7 - M2 East

2024 Baseline + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.0%	0.0%	650	110	0	0	0.0%	0.0%	795	61	0	0	0.0%	0.0%
01.00	297	92	0	0	0.0%	0.0%	430	94	0	0	0.0%	0.0%	487	58	0	0	0.0%	0.0%
02.00	311	105	0	0	0.0%	0.0%	363	88	0	0	0.0%	0.0%	323	44	0	0	0.0%	0.0%
03.00	426	144	0	0	0.0%	0.0%	382	108	0	0	0.0%	0.0%	287	63	0	0	0.0%	0.0%
04.00	984	242	0	0	0.0%	0.0%	517	136	0	0	0.0%	0.0%	308	54	0	0	0.0%	0.0%
05.00	2575	395	0	0	0.0%	0.0%	1082	178	0	0	0.0%	0.0%	611	72	0	0	0.0%	0.0%
06.00	3882	453	1	0	0.0%	0.0%	1623	217	1	0	0.1%	0.0%	913	86	1	0	0.2%	0.0%
07.00	5181	471	5	2	0.1%	0.3%	2281	255	5	2	0.2%	0.6%	1256	98	4	1	0.3%	0.9%
08.00	4760	521	2	2	0.0%	0.3%	2932	262	2	2	0.1%	0.6%	1687	103	1	1	0.1%	0.9%
09.00	3956	539	2	2	0.0%	0.3%	3286	256	2	2	0.0%	0.6%	2510	142	1	1	0.0%	0.6%
10.00	3642	525	2	2	0.0%	0.3%	3759	246	2	2	0.0%	0.6%	3398	165	1	1	0.0%	0.5%
11.00	3638	512	2	2	0.0%	0.3%	4173	229	2	2	0.0%	0.7%	3893	192	1	1	0.0%	0.4%
12.00	3964	558	2	2	0.0%	0.3%	4385	219	2	2	0.0%	0.7%	4208	179	1	1	0.0%	0.5%
13.00	4105	569	1	1	0.0%	0.2%	4299	207	1	1	0.0%	0.3%	3983	180	1	1	0.0%	0.3%
14.00	4376	573	1	1	0.0%	0.2%	3960	206	1	1	0.0%	0.3%	3635	182	1	1	0.0%	0.3%
15.00	4836	552	2	2	0.0%	0.3%	3797	185	1	1	0.0%	0.5%	3464	169	1	1	0.0%	0.5%
16.00	5703	446	3	2	0.1%	0.4%	3971	177	2	1	0.1%	0.5%	3849	165	2	1	0.1%	0.5%
17.00	6058	361	3	1	0.0%	0.3%	3768	150	2	1	0.1%	0.4%	3501	155	2	1	0.1%	0.4%
18.00	4542	305	2	1	0.0%	0.4%	3333	142	1	1	0.0%	0.4%	3093	128	1	1	0.0%	0.4%
19.00	2953	228	2	1	0.1%	0.4%	2552	107	2	1	0.1%	0.8%	2553	108	2	1	0.1%	0.8%
20.00	2064	154	1	1	0.0%	0.5%	1844	76	1	1	0.0%	1.1%	1928	76	1	1	0.0%	1.1%
21.00	1516	108	1	1	0.1%	0.8%	1433	63	1	1	0.1%	1.4%	1367	68	1	1	0.1%	1.3%
22.00	1223	100	1	1	0.1%	0.9%	1436	55	1	1	0.1%	1.6%	887	54	1	1	0.1%	1.7%
23.00	731	96	0	0	0.0%	0.0%	1111	60	0	0	0.0%	0.0%	508	70	0	0	0.0%	0.0%
12 hr	54761	5931	24	17	0.0%	0.3%	43944	2534	20	13	0.0%	0.5%	38476	1859	16	9	0.0%	0.5%
24 hr	72110	8146	30	21	0.0%	0.3%	57367	3827	26	17	0.0%	0.4%	49443	2672	22	13	0.0%	0.5%

**Link 8 - Swale Way north of Reams Way Junction**

**2024 Baseline + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	644	51	0	0	0.0%	0.0%	240	19	0	0	0.0%	0.0%	129	12	0	0	0.0%	0.0%
07.00	1414	85	0	0	0.0%	0.0%	349	22	0	0	0.0%	0.0%	154	12	0	0	0.1%	0.0%
08.00	1499	83	0	0	0.0%	0.0%	450	30	0	0	0.0%	0.0%	153	14	0	0	0.0%	0.0%
09.00	950	99	0	0	0.0%	0.0%	571	31	0	0	0.0%	0.0%	322	13	0	0	0.0%	0.0%
10.00	839	106	1	1	0.1%	0.9%	704	34	1	1	0.1%	2.9%	437	18	0	0	0.0%	0.0%
11.00	830	100	1	1	0.1%	1.0%	770	23	1	1	0.1%	4.3%	529	24	0	0	0.0%	0.0%
12.00	932	102	0	0	0.0%	0.0%	732	25	0	0	0.0%	0.0%	556	19	0	0	0.0%	0.0%
13.00	900	93	0	0	0.0%	0.0%	692	33	0	0	0.0%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	0	0	0.0%	0.0%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1188	86	0	0	0.0%	0.0%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	0	0	0.0%	0.0%	553	20	0	0	0.0%	0.0%	539	17	0	0	0.0%	0.0%
17.00	1299	61	0	0	0.0%	0.0%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	0	0	0.0%	0.0%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	483	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	259	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.0%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13175	1052	2	2	0.0%	0.2%	7131	304	2	2	0.0%	0.7%	5243	184	0	0	0.0%	0.0%
24 hr	16116	1362	2	2	0.0%	0.1%	8933	431	2	2	0.0%	0.5%	6617	280	0	0	0.0%	0.0%

**Link 9 - Swale Way south of Reams Way Junction**

**2024 Baseline + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	656	57	0	0	0.0%	0.0%	273	20	0	0	0.0%	0.0%	133	13	0	0	0.0%	0.0%
07.00	1416	85	0	0	0.0%	0.0%	347	27	0	0	0.0%	0.0%	188	12	0	0	0.1%	0.0%
08.00	1432	94	0	0	0.0%	0.0%	484	26	0	0	0.0%	0.0%	155	7	0	0	0.0%	0.0%
09.00	917	105	0	0	0.0%	0.0%	575	35	0	0	0.0%	0.0%	324	15	0	0	0.0%	0.0%
10.00	828	107	1	1	0.1%	0.9%	716	25	1	1	0.1%	4.0%	474	15	0	0	0.0%	0.0%
11.00	850	108	1	1	0.1%	0.9%	775	35	1	1	0.1%	2.8%	506	17	0	0	0.0%	0.0%
12.00	917	98	0	0	0.0%	0.0%	749	34	0	0	0.0%	0.0%	522	15	0	0	0.0%	0.0%
13.00	950	92	0	0	0.0%	0.0%	622	32	0	0	0.0%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	0	0	0.0%	0.0%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	0	0	0.0%	0.0%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1433	82	0	0	0.0%	0.0%	547	19	0	0	0.0%	0.0%	440	14	0	0	0.0%	0.0%
17.00	1370	64	0	0	0.0%	0.0%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	0	0	0.0%	0.0%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	477	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.0%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13210	1093	2	2	0.0%	0.2%	6976	316	2	2	0.0%	0.6%	4860	194	0	0	0.0%	0.0%
24 hr	16134	1403	2	2	0.0%	0.1%	8849	425	2	2	0.0%	0.5%	6172	278	0	0	0.0%	0.0%

**Link 10 - Swale Way south of Ridham Avenue Roundabout**

**2024 Baseline + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	565	37	0	0	0.0%	0.0%	197	12	0	0	0.0%	0.0%	99	5	0	0	0.1%	0.0%
07.00	1313	67	0	0	0.0%	0.0%	319	16	0	0	0.0%	0.0%	138	5	0	0	0.1%	0.0%
08.00	1401	71	0	0	0.0%	0.0%	421	17	0	0	0.0%	0.0%	139	4	0	0	0.0%	0.0%
09.00	869	83	0	0	0.0%	0.0%	542	18	0	0	0.0%	0.0%	312	4	0	0	0.0%	0.0%
10.00	741	88	1	1	0.1%	1.1%	681	16	1	1	0.1%	6.1%	404	8	0	0	0.0%	0.0%
11.00	740	75	1	1	0.1%	1.3%	764	11	1	1	0.1%	8.8%	518	9	0	0	0.0%	0.0%
12.00	823	81	0	0	0.0%	0.0%	717	15	0	0	0.0%	0.0%	540	11	0	0	0.0%	0.0%
13.00	833	74	0	0	0.0%	0.0%	658	16	0	0	0.0%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	77	0	0	0.0%	0.0%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	0	0	0.0%	0.0%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	0	0	0.0%	0.0%	532	13	0	0	0.0%	0.0%	521	11	0	0	0.0%	0.0%
17.00	1242	56	0	0	0.0%	0.0%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	50	0	0	0.0%	0.0%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	431	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.0%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12154	863	2	2	0.0%	0.2%	6806	170	2	2	0.0%	1.2%	5023	84	0	0	0.0%	0.0%
24 hr	14591	1055	2	2	0.0%	0.2%	8379	245	2	2	0.0%	0.8%	6218	120	0	0	0.0%	0.0%

**Link 11 - A249 North of Swale Way Junction**

**2024 Baseline + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact		2024 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.0%	0.0%	436	30	0	0	0.1%	0.0%
07.00	3012	191	1	0	0.0%	0.1%	1139	82	1	0	0.1%	0.2%	581	26	1	0	0.1%	0.0%
08.00	2710	235	0	0	0.0%	0.1%	1543	83	0	0	0.0%	0.2%	872	31	0	0	0.0%	0.0%
09.00	2053	238	0	0	0.0%	0.1%	1887	76	0	0	0.0%	0.2%	1368	48	0	0	0.0%	0.0%
10.00	1965	234	0	0	0.0%	0.1%	2223	85	0	0	0.0%	0.2%	2020	41	0	0	0.0%	0.0%
11.00	2067	230	0	0	0.0%	0.1%	2492	71	0	0	0.0%	0.2%	2331	38	0	0	0.0%	0.0%
12.00	2199	227	0	0	0.0%	0.1%	2640	63	0	0	0.0%	0.2%	2543	44	0	0	0.0%	0.0%
13.00	2235	222	0	0	0.0%	0.1%	2540	61	0	0	0.0%	0.0%	2417	47	0	0	0.0%	0.0%
14.00	2350	239	0	0	0.0%	0.1%	2406	57	0	0	0.0%	0.0%	2134	42	0	0	0.0%	0.0%
15.00	2574	205	0	0	0.0%	0.1%	2333	45	0	0	0.0%	0.0%	2049	45	0	0	0.0%	0.0%
16.00	3164	170	0	0	0.0%	0.1%	2290	49	0	0	0.0%	0.0%	2114	41	0	0	0.0%	0.0%
17.00	3303	126	0	0	0.0%	0.1%	2189	36	0	0	0.0%	0.0%	1964	39	0	0	0.0%	0.0%
18.00	2284	83	0	0	0.0%	0.2%	1847	36	0	0	0.0%	0.0%	1763	43	0	0	0.0%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	0	0	0.0%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	0	0	0.0%	0.0%	822	25	0	0	0.0%	0.0%	704	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.0%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.0%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29916	2398	3	2	0.0%	0.1%	25528	742	2	1	0.0%	0.1%	22156	485	1	0	0.0%	0.0%
24 hr	37860	3121	4	2	0.0%	0.1%	32342	1117	3	1	0.0%	0.1%	27697	709	2	0	0.0%	0.0%

**APPENDIX AA: 2024 BASELINE, WKN OPERATIONAL AND K3 OPERATIONAL PERCENTAGE IMPACT TABLE**

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**Link 1 - Swale Way East of B2005 Groveshurst Roundabout**

**2024 Baseline + K3 Operational + WKN Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	160	51	5	5	3.1%	9.7%	179	45	5	5	2.8%	10.9%	184	15	5	5	2.7%	32.9%
01.00	148	46	5	5	3.3%	10.8%	158	56	5	5	3.1%	8.9%	157	14	5	5	3.2%	35.3%
02.00	164	42	5	5	3.0%	11.8%	128	45	5	5	3.9%	10.9%	97	13	5	5	5.1%	38.1%
03.00	242	66	5	5	2.1%	7.5%	165	46	5	5	3.0%	10.7%	82	15	5	5	6.0%	32.9%
04.00	366	80	5	5	1.4%	6.2%	204	61	5	5	2.4%	8.2%	100	16	5	5	5.0%	30.9%
05.00	945	135	5	5	0.5%	3.7%	530	93	5	5	0.9%	5.3%	289	47	5	5	1.7%	10.6%
06.00	1116	189	20	5	1.8%	2.6%	517	134	20	5	3.9%	3.7%	247	75	20	5	8.2%	6.6%
07.00	1885	216	77	48	4.1%	22.4%	677	128	77	48	11.4%	37.7%	271	61	63	35	23.4%	56.7%
08.00	2193	206	60	48	2.7%	23.5%	705	110	60	48	8.6%	44.2%	286	57	46	35	16.3%	60.3%
09.00	1326	229	46	46	3.5%	20.3%	778	133	46	46	6.0%	35.0%	307	65	33	33	10.6%	50.0%
10.00	1207	251	46	46	3.8%	18.5%	886	133	46	46	5.2%	34.9%	326	74	33	33	10.0%	44.2%
11.00	1233	237	46	46	3.8%	19.6%	915	129	46	46	5.1%	36.1%	547	71	33	33	6.0%	45.7%
12.00	1352	222	46	46	3.4%	20.9%	937	105	46	46	5.0%	44.2%	847	55	33	33	3.9%	59.2%
13.00	1465	245	47	43	3.2%	17.5%	903	108	33	29	3.7%	26.9%	510	69	33	29	6.5%	42.1%
14.00	1446	237	47	43	3.2%	18.1%	882	105	33	29	3.8%	27.7%	523	64	33	29	6.4%	45.5%
15.00	1571	234	48	48	3.1%	20.7%	898	111	35	35	3.9%	31.1%	529	66	35	35	6.5%	52.4%
16.00	1700	190	59	48	3.5%	25.5%	805	96	46	35	5.7%	36.0%	647	53	46	35	7.0%	65.2%
17.00	1800	155	66	43	3.6%	27.8%	810	81	52	29	6.4%	35.9%	666	50	52	29	7.8%	58.2%
18.00	1202	129	33	30	2.7%	23.5%	690	72	19	16	2.8%	23.0%	451	41	19	16	4.2%	40.4%
19.00	729	97	31	20	4.2%	20.7%	550	68	31	20	5.6%	29.3%	516	51	31	20	6.0%	39.0%
20.00	544	93	20	20	3.7%	21.4%	401	69	20	20	5.0%	29.0%	364	44	20	20	5.5%	45.6%
21.00	384	68	26	22	6.8%	32.3%	313	49	26	22	8.4%	44.7%	221	33	26	22	11.8%	65.9%
22.00	300	49	26	22	8.7%	44.7%	276	25	26	22	9.5%	87.3%	305	10	26	22	8.6%	219.8%
23.00	198	46	5	5	2.5%	10.8%	204	29	5	5	2.4%	17.0%	197	10	5	5	2.5%	49.6%
12 hr	18381	2550	622	539	3.4%	21.1%	9886	1311	541	456	5.5%	34.8%	5909	727	458	373	7.7%	51.3%
24 hr	23678	3513	780	662	3.3%	18.9%	13512	2032	699	579	5.2%	28.5%	8667	1070	616	496	7.1%	46.4%

Link 2 - Barge Way North of Swale Roundabout																		
2024 Baseline + K3 Operational + WKN Operational (K3 (0-75MW)) Percentage Impact																		
Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	128	35	5	5	3.9%	14.1%	133	31	5	5	3.7%	15.9%	100	26	5	5	5.0%	18.9%
01.00	131	32	5	5	3.8%	15.6%	107	26	5	5	4.6%	18.9%	87	25	5	5	5.7%	19.7%
02.00	169	33	5	5	2.9%	15.0%	130	35	5	5	3.8%	14.1%	88	22	5	5	5.6%	22.4%
03.00	223	51	5	5	2.2%	9.6%	166	43	5	5	3.0%	11.4%	81	25	5	5	6.1%	19.7%
04.00	308	63	5	5	1.6%	7.9%	211	57	5	5	2.3%	8.8%	104	28	5	5	4.8%	17.6%
05.00	545	99	5	5	0.9%	5.0%	346	85	5	5	1.4%	5.8%	194	55	5	5	2.6%	9.1%
06.00	530	138	20	5	3.8%	3.6%	308	123	20	5	6.6%	4.0%	168	77	20	5	12.1%	6.4%
07.00	515	147	77	49	15.0%	33.3%	301	112	77	49	25.6%	43.5%	156	77	63	35	40.7%	44.9%
08.00	515	145	60	49	11.7%	33.9%	278	116	60	49	21.7%	42.2%	160	66	46	35	29.0%	52.2%
09.00	434	163	46	47	10.7%	28.9%	276	122	46	47	16.8%	38.6%	155	77	33	33	21.1%	42.3%
10.00	446	169	46	47	10.4%	27.8%	287	111	46	47	16.2%	42.3%	159	82	33	33	20.6%	39.9%
11.00	403	168	46	47	11.5%	27.9%	259	117	46	47	17.9%	40.2%	183	94	33	33	17.8%	34.5%
12.00	417	152	46	47	11.1%	31.0%	238	79	46	47	19.5%	59.3%	219	65	33	33	14.9%	50.2%
13.00	511	177	47	43	9.2%	24.6%	304	95	33	29	11.0%	30.6%	214	85	33	29	15.6%	34.2%
14.00	506	186	47	43	9.3%	23.4%	275	107	33	29	12.1%	27.1%	187	83	33	29	17.9%	35.1%
15.00	508	184	48	49	9.5%	26.6%	293	116	35	35	11.8%	29.7%	182	86	35	35	19.0%	40.2%
16.00	524	149	59	49	11.3%	32.9%	245	76	46	35	18.6%	45.4%	221	82	46	35	20.7%	42.1%
17.00	497	113	66	43	13.2%	38.5%	201	69	52	29	25.9%	42.1%	181	60	52	29	28.7%	48.5%
18.00	369	94	33	31	8.9%	32.7%	187	53	19	16	10.2%	31.2%	143	47	19	16	13.3%	35.3%
19.00	248	85	31	20	12.5%	23.5%	134	69	31	20	23.1%	28.8%	130	54	31	20	23.8%	36.9%
20.00	183	64	20	20	10.9%	31.1%	106	57	20	20	18.9%	35.2%	100	50	20	20	20.1%	40.2%
21.00	144	47	26	22	18.2%	47.0%	89	40	26	22	29.5%	54.6%	74	34	26	22	35.6%	64.3%
22.00	109	32	26	22	24.2%	68.6%	67	23	26	22	39.3%	94.9%	73	15	26	22	36.1%	146.0%
23.00	143	41	5	5	3.5%	12.1%	77	24	5	5	6.5%	20.5%	74	20	5	5	6.7%	24.7%
12 hr	5645	1845	624	545	11.1%	29.5%	3143	1174	541	459	17.2%	39.1%	2159	905	458	373	21.2%	41.2%
24 hr	8506	2566	783	668	9.2%	26.0%	5018	1788	700	582	13.9%	32.6%	3430	1337	617	496	18.0%	37.1%

**Link 3 - Barge Way East of Fleet End Roundabout**

**2024 Baseline + K3 Operational + WKN Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	18	5	5	12.5%	27.1%	90	14	5	5	5.5%	35.3%	14	10	5	5	35.3%	49.6%
01.00	38	17	5	5	12.9%	29.4%	34	17	5	5	14.5%	29.0%	11	10	5	5	45.1%	49.6%
02.00	57	20	5	5	8.7%	25.4%	35	25	5	5	14.1%	19.7%	13	10	5	5	38.1%	49.6%
03.00	71	21	5	5	7.0%	23.3%	19	12	5	5	26.0%	41.3%	11	10	5	5	45.1%	49.6%
04.00	111	27	5	5	4.5%	18.2%	38	20	5	5	12.9%	24.7%	20	10	5	5	24.7%	49.6%
05.00	226	36	5	5	2.2%	13.9%	97	17	5	5	5.1%	29.0%	55	11	5	5	9.0%	45.1%
06.00	275	54	20	5	7.4%	9.1%	109	39	20	5	18.5%	12.6%	55	13	20	5	37.0%	38.1%
07.00	301	65	78	49	25.8%	75.0%	125	35	78	49	62.2%	138.7%	64	13	63	35	98.6%	265.5%
08.00	292	73	61	49	20.8%	66.7%	125	39	61	49	48.6%	124.4%	80	10	46	35	58.3%	346.1%
09.00	224	76	47	47	21.0%	61.8%	118	39	47	47	39.9%	119.3%	58	10	33	33	56.2%	326.1%
10.00	213	78	47	47	22.1%	59.9%	106	34	47	47	44.2%	136.9%	59	10	33	33	55.6%	326.1%
11.00	188	75	47	47	25.0%	62.5%	91	20	47	47	51.3%	233.4%	52	12	33	33	62.7%	271.2%
12.00	221	76	47	47	21.2%	61.6%	84	15	47	47	56.1%	311.8%	59	11	33	33	54.9%	296.2%
13.00	256	78	48	43	18.6%	56.0%	111	14	33	29	30.1%	207.2%	92	10	33	29	36.4%	291.0%
14.00	234	88	48	43	20.4%	49.5%	88	13	33	29	37.8%	223.3%	71	10	33	29	46.9%	291.0%
15.00	211	85	49	49	23.2%	57.8%	80	17	35	35	43.4%	202.6%	61	11	35	35	56.3%	314.3%
16.00	243	63	60	49	24.7%	77.2%	87	14	46	35	52.7%	246.4%	81	13	46	35	56.6%	265.5%
17.00	271	43	66	43	24.5%	100.6%	86	11	52	29	60.5%	264.3%	95	10	52	29	54.7%	291.0%
18.00	147	30	33	31	22.7%	102.6%	62	12	19	16	30.7%	137.0%	59	11	19	16	32.3%	149.6%
19.00	88	28	31	20	35.1%	70.3%	47	10	31	20	66.4%	199.8%	50	10	31	20	62.3%	199.8%
20.00	77	27	20	20	25.8%	75.1%	29	12	20	20	67.9%	166.2%	28	10	20	20	70.3%	199.8%
21.00	67	19	26	22	38.9%	113.9%	27	10	26	22	96.5%	219.8%	26	12	26	22	100.2%	182.8%
22.00	41	21	26	22	64.3%	105.0%	12	10	26	22	218.1%	219.8%	19	11	26	22	137.3%	199.6%
23.00	40	17	5	5	12.4%	29.0%	11	10	5	5	45.1%	49.6%	17	11	5	5	29.0%	45.1%
12 hr	2801	831	630	545	22.5%	65.6%	1163	265	544	459	46.8%	173.3%	831	131	458	373	55.2%	284.2%
24 hr	3932	1136	789	668	20.1%	58.8%	1712	462	703	582	41.0%	126.2%	1150	259	617	496	53.6%	191.5%

**Link 4 - A249 South of Swale Way Junction**

**2024 Baseline + K3 Operational + WKN Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	235	62	5	5	2.1%	8.0%	393	63	5	5	1.3%	7.9%	453	40	5	5	1.1%	12.3%
01.00	169	53	5	5	2.9%	9.3%	262	58	5	5	1.9%	8.6%	291	33	5	5	1.7%	14.9%
02.00	167	60	5	5	3.0%	8.3%	222	68	5	5	2.2%	7.3%	204	37	5	5	2.4%	13.6%
03.00	237	78	5	5	2.1%	6.4%	223	68	5	5	2.2%	7.3%	171	39	5	5	2.9%	12.8%
04.00	548	139	5	5	0.9%	3.6%	305	76	5	5	1.6%	6.5%	196	40	5	5	2.5%	12.5%
05.00	1339	239	5	5	0.4%	2.1%	695	140	5	5	0.7%	3.5%	409	75	5	5	1.2%	6.6%
06.00	2212	303	20	5	0.9%	1.6%	1041	181	20	5	1.9%	2.7%	625	109	20	5	3.1%	4.5%
07.00	3124	339	75	48	2.4%	14.1%	1415	193	75	48	5.3%	24.9%	801	106	62	35	7.8%	32.6%
08.00	2874	343	59	48	2.1%	14.0%	1803	204	59	48	3.3%	23.4%	1107	106	46	35	4.2%	32.6%
09.00	2192	357	46	46	2.1%	12.9%	2048	223	46	46	2.2%	20.6%	1628	147	33	33	2.0%	22.2%
10.00	2101	378	46	46	2.2%	12.1%	2343	211	46	46	2.0%	21.7%	2090	164	33	33	1.6%	19.9%
11.00	2136	369	46	46	2.2%	12.5%	2486	206	46	46	1.8%	22.3%	2312	162	33	33	1.4%	20.1%
12.00	2296	362	46	46	2.0%	12.7%	2678	183	46	46	1.7%	25.2%	2172	135	33	33	1.5%	24.2%
13.00	2329	380	46	42	2.0%	11.2%	2619	189	33	29	1.3%	15.4%	2133	144	33	29	1.6%	20.3%
14.00	2571	381	46	42	1.8%	11.1%	2400	174	33	29	1.4%	16.7%	2151	145	33	29	1.5%	20.1%
15.00	2860	376	48	48	1.7%	12.8%	2354	178	35	35	1.5%	19.5%	2124	156	35	35	1.6%	22.1%
16.00	3385	312	58	48	1.7%	15.4%	2296	151	45	35	2.0%	22.9%	2234	150	45	35	2.0%	23.1%
17.00	3658	272	64	42	1.8%	15.6%	2331	142	51	29	2.2%	20.6%	1944	136	51	29	2.6%	21.4%
18.00	2762	243	32	30	1.2%	12.2%	2033	129	19	16	0.9%	12.8%	1858	124	19	16	1.0%	13.3%
19.00	1846	184	30	20	1.7%	10.9%	1596	118	30	20	1.9%	17.0%	1543	111	30	20	2.0%	18.1%
20.00	1272	137	20	20	1.6%	14.6%	1159	86	20	20	1.7%	23.1%	1274	95	20	20	1.6%	21.1%
21.00	947	104	26	22	2.7%	21.2%	964	66	26	22	2.7%	33.3%	926	78	26	22	2.8%	28.0%
22.00	726	69	26	22	3.6%	32.0%	852	44	26	22	3.1%	50.0%	545	40	26	22	4.8%	55.1%
23.00	435	58	5	5	1.1%	8.5%	659	45	5	5	0.8%	11.1%	331	42	5	5	1.5%	11.9%
12 hr	32289	4112	614	533	1.9%	13.0%	26806	2183	534	453	2.0%	20.7%	22554	1674	454	373	2.0%	22.3%
24 hr	42420	5597	771	656	1.8%	11.7%	35179	3194	691	576	2.0%	18.0%	29521	2413	611	496	2.1%	20.6%

Link 5 - A249 between the A2 and M2

2024 Baseline + K3 Operational + WKN Operational (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	333	86	5	5	1.5%	5.8%	559	88	5	5	0.9%	5.7%	644	55	5	5	0.8%	9.0%
01.00	238	74	5	5	2.1%	6.7%	372	80	5	5	1.3%	6.2%	414	45	5	5	1.2%	11.0%
02.00	236	82	5	5	2.1%	6.0%	315	94	5	5	1.6%	5.3%	290	50	5	5	1.7%	10.0%
03.00	334	108	5	5	1.5%	4.6%	317	95	5	5	1.6%	5.2%	242	53	5	5	2.1%	9.3%
04.00	777	194	5	5	0.6%	2.6%	433	106	5	5	1.1%	4.7%	277	54	5	5	1.8%	9.2%
05.00	1873	323	5	5	0.3%	1.5%	971	185	5	5	0.5%	2.7%	562	92	5	5	0.9%	5.4%
06.00	3105	401	19	5	0.6%	1.2%	1451	232	19	5	1.3%	2.1%	854	129	19	5	2.2%	3.9%
07.00	4370	438	75	49	1.7%	11.2%	1968	243	75	49	3.8%	20.1%	1109	129	61	35	5.5%	26.9%
08.00	3947	444	60	49	1.5%	11.0%	2523	261	60	49	2.4%	18.7%	1544	130	45	35	2.9%	26.6%
09.00	3046	460	47	47	1.5%	10.2%	2898	283	47	47	1.6%	16.6%	2301	184	33	33	1.4%	17.7%
10.00	2911	487	47	47	1.6%	9.6%	3318	265	47	47	1.4%	17.7%	2988	206	33	33	1.1%	15.8%
11.00	2965	476	47	47	1.6%	9.9%	3536	258	47	47	1.3%	18.2%	3319	205	33	33	1.0%	15.9%
12.00	3193	475	47	47	1.5%	9.9%	3827	233	47	47	1.2%	20.1%	3125	174	33	33	1.0%	18.7%
13.00	3233	492	47	43	1.5%	8.8%	3719	234	33	29	0.9%	12.5%	3043	179	33	29	1.1%	16.3%
14.00	3573	498	47	43	1.3%	8.7%	3422	217	33	29	1.0%	13.4%	3060	184	33	29	1.1%	15.8%
15.00	4005	486	49	49	1.2%	10.1%	3349	218	35	35	1.0%	15.9%	3027	197	35	35	1.1%	17.6%
16.00	4747	401	59	49	1.2%	12.2%	3261	186	45	35	1.4%	18.6%	3177	193	45	35	1.4%	17.9%
17.00	5113	345	64	43	1.3%	12.6%	3322	173	50	29	1.5%	16.8%	2762	175	50	29	1.8%	16.6%
18.00	3899	310	33	31	0.8%	9.9%	2904	159	19	16	0.6%	10.4%	2653	161	19	16	0.7%	10.2%
19.00	2591	239	30	20	1.2%	8.3%	2248	148	30	20	1.3%	13.5%	2172	138	30	20	1.4%	14.5%
20.00	1785	175	20	20	1.1%	11.4%	1634	107	20	20	1.2%	18.7%	1798	118	20	20	1.1%	16.9%
21.00	1328	133	26	22	1.9%	16.5%	1361	82	26	22	1.9%	26.7%	1306	100	26	22	2.0%	22.1%
22.00	1021	95	26	22	2.5%	23.1%	1216	60	26	22	2.1%	36.4%	777	55	26	22	3.3%	40.3%
23.00	616	81	5	5	0.8%	6.2%	940	61	5	5	0.5%	8.1%	470	57	5	5	1.1%	8.7%
12 hr	45002	5311	623	545	1.4%	10.3%	38048	2731	537	459	1.4%	16.8%	32108	2118	451	373	1.4%	17.6%
24 hr	59239	7303	778	668	1.3%	9.2%	49865	4070	692	582	1.4%	14.3%	41914	3063	606	496	1.4%	16.2%

Link 6 - M2 West

2024 Baseline + K3 Operational + WKN Operational (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	425	108	3	3	0.7%	2.8%	708	120	3	3	0.4%	2.6%	866	66	3	3	0.4%	4.6%
01.00	323	100	3	3	0.9%	3.1%	469	103	3	3	0.7%	3.0%	530	63	3	3	0.6%	4.9%
02.00	338	114	3	3	0.9%	2.7%	395	96	3	3	0.8%	3.2%	351	48	3	3	0.9%	6.4%
03.00	464	157	3	3	0.7%	1.9%	416	117	3	3	0.7%	2.6%	312	68	3	3	1.0%	4.5%
04.00	1072	263	3	3	0.3%	1.2%	563	148	3	3	0.5%	2.1%	335	59	3	3	0.9%	5.2%
05.00	2827	446	3	3	0.1%	0.7%	1196	210	3	3	0.3%	1.5%	684	95	3	3	0.4%	3.2%
06.00	4264	524	7	3	0.2%	0.6%	1800	266	7	3	0.4%	1.2%	1026	123	7	3	0.7%	2.5%
07.00	5694	537	32	24	0.6%	4.4%	2513	300	32	24	1.3%	7.9%	1399	130	29	21	2.1%	16.5%
08.00	5262	589	27	24	0.5%	4.0%	3224	306	27	24	0.8%	7.8%	1870	133	25	21	1.3%	16.0%
09.00	4362	615	23	23	0.5%	3.7%	3619	304	23	23	0.6%	7.4%	2773	181	20	20	0.7%	11.1%
10.00	4023	602	23	23	0.6%	3.7%	4139	296	23	23	0.5%	7.6%	3753	210	20	20	0.5%	9.6%
11.00	4016	586	23	23	0.6%	3.8%	4589	276	23	23	0.5%	8.1%	4291	238	20	20	0.5%	8.5%
12.00	4365	626	23	23	0.5%	3.6%	4813	254	23	23	0.5%	8.9%	4624	212	20	20	0.4%	9.5%
13.00	4530	648	22	20	0.5%	3.1%	4733	252	19	18	0.4%	7.1%	4390	223	19	18	0.4%	8.0%
14.00	4821	647	22	20	0.4%	3.1%	4358	246	19	18	0.4%	7.3%	3999	221	19	18	0.5%	8.1%
15.00	5328	629	24	24	0.4%	3.8%	4185	229	21	21	0.5%	9.3%	3820	211	21	21	0.6%	10.1%
16.00	6269	506	27	24	0.4%	4.7%	4365	213	24	21	0.6%	10.0%	4229	200	24	21	0.6%	10.7%
17.00	6664	412	27	20	0.4%	4.9%	4142	182	24	18	0.6%	9.9%	3845	188	24	18	0.6%	9.6%
18.00	4984	347	13	13	0.3%	3.6%	3662	169	11	10	0.3%	6.0%	3397	154	11	10	0.3%	6.6%
19.00	3244	269	15	12	0.5%	4.6%	2803	137	15	12	0.5%	9.0%	2805	138	15	12	0.5%	8.9%
20.00	2268	184	12	12	0.5%	6.7%	2026	99	12	12	0.6%	12.5%	2118	100	12	12	0.6%	12.4%
21.00	1664	129	15	14	0.9%	10.5%	1572	80	15	14	0.9%	17.0%	1500	85	15	14	1.0%	16.0%
22.00	1335	109	15	14	1.1%	12.5%	1564	60	15	14	0.9%	22.5%	965	59	15	14	1.5%	23.1%
23.00	796	105	3	3	0.4%	2.9%	1210	66	3	3	0.3%	4.7%	553	76	3	3	0.6%	4.0%
12 hr	60318	6744	282	259	0.5%	3.8%	48343	3029	268	244	0.6%	8.1%	42392	2301	254	230	0.6%	10.0%
24 hr	79338	9252	368	335	0.5%	3.6%	63065	4530	354	321	0.6%	7.1%	54439	3279	339	306	0.6%	9.3%

Link 7 - M2 East

2024 Baseline + K3 Operational + WKN Operational (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.1%	0.3%	649	110	0	0	0.1%	0.3%	795	60	0	0	0.0%	0.6%
01.00	296	92	0	0	0.1%	0.4%	430	94	0	0	0.1%	0.4%	487	57	0	0	0.1%	0.6%
02.00	310	104	0	0	0.1%	0.3%	363	88	0	0	0.1%	0.4%	322	44	0	0	0.1%	0.8%
03.00	425	144	0	0	0.1%	0.2%	382	107	0	0	0.1%	0.3%	287	62	0	0	0.1%	0.5%
04.00	983	241	0	0	0.0%	0.1%	516	136	0	0	0.1%	0.2%	307	53	0	0	0.1%	0.6%
05.00	2574	394	0	0	0.0%	0.1%	1081	177	0	0	0.0%	0.2%	611	72	0	0	0.1%	0.5%
06.00	3881	453	2	0	0.1%	0.1%	1623	217	2	0	0.1%	0.2%	912	85	2	0	0.3%	0.4%
07.00	5178	469	8	4	0.2%	0.9%	2279	253	8	4	0.4%	1.6%	1254	97	6	2	0.5%	2.4%
08.00	4756	519	6	4	0.1%	0.8%	2929	260	6	4	0.2%	1.6%	1685	102	4	2	0.2%	2.3%
09.00	3954	537	4	4	0.1%	0.7%	3284	254	4	4	0.1%	1.6%	2509	141	2	2	0.1%	1.5%
10.00	3640	523	4	4	0.1%	0.8%	3757	244	4	4	0.1%	1.6%	3397	164	2	2	0.1%	1.3%
11.00	3636	509	4	4	0.1%	0.8%	4170	227	4	4	0.1%	1.8%	3891	191	2	2	0.1%	1.1%
12.00	3962	556	4	4	0.1%	0.7%	4383	217	4	4	0.1%	1.8%	4207	178	2	2	0.1%	1.2%
13.00	4103	567	4	4	0.1%	0.7%	4297	205	3	2	0.1%	0.9%	3981	179	3	2	0.1%	1.1%
14.00	4373	571	4	4	0.1%	0.7%	3959	204	3	2	0.1%	1.0%	3634	181	3	2	0.1%	1.1%
15.00	4834	550	4	4	0.1%	0.7%	3796	184	2	2	0.1%	1.3%	3462	168	2	2	0.1%	1.4%
16.00	5701	444	6	4	0.1%	0.9%	3970	176	4	2	0.1%	1.3%	3847	164	4	2	0.1%	1.4%
17.00	6054	359	7	4	0.1%	1.0%	3765	148	5	2	0.1%	1.3%	3498	154	5	2	0.1%	1.3%
18.00	4541	303	3	3	0.1%	1.0%	3333	142	1	1	0.0%	0.8%	3092	128	1	1	0.0%	0.9%
19.00	2953	228	3	1	0.1%	0.6%	2551	107	3	1	0.1%	1.3%	2553	108	3	1	0.1%	1.2%
20.00	2064	153	1	1	0.1%	0.9%	1844	75	1	1	0.1%	1.8%	1928	76	1	1	0.1%	1.8%
21.00	1515	108	2	1	0.1%	1.4%	1432	63	2	1	0.1%	2.3%	1366	68	2	1	0.2%	2.2%
22.00	1222	100	2	1	0.2%	1.5%	1435	55	2	1	0.1%	2.7%	886	54	2	1	0.2%	2.7%
23.00	730	96	0	0	0.0%	0.3%	1111	60	0	0	0.0%	0.6%	507	69	0	0	0.1%	0.5%
12 hr	54731	5906	58	46	0.1%	0.8%	43920	2515	47	36	0.1%	1.4%	38458	1846	37	25	0.1%	1.4%
24 hr	72075	8117	71	55	0.1%	0.7%	57338	3804	60	44	0.1%	1.2%	49419	2655	50	33	0.1%	1.3%

**Link 8 - Swale Way north of Reams Way Junction**

**2024 Baseline + K3 Operational + WKN Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	644	51	0	0	0.0%	0.0%	240	19	0	0	0.0%	0.0%	129	12	0	0	0.1%	0.0%
07.00	1413	84	0	0	0.0%	0.4%	348	22	0	0	0.1%	1.4%	154	12	0	0	0.1%	0.0%
08.00	1498	83	0	0	0.0%	0.4%	450	30	0	0	0.1%	1.1%	153	14	0	0	0.0%	0.0%
09.00	949	98	0	0	0.0%	0.3%	570	31	0	0	0.1%	1.0%	322	13	0	0	0.0%	0.0%
10.00	839	106	1	1	0.2%	1.2%	704	34	1	1	0.2%	3.9%	437	18	0	0	0.0%	0.0%
11.00	830	100	1	1	0.2%	1.3%	770	23	1	1	0.2%	5.7%	529	24	0	0	0.0%	0.0%
12.00	931	102	0	0	0.0%	0.3%	732	25	0	0	0.0%	1.3%	556	19	0	0	0.0%	0.0%
13.00	900	93	0	0	0.0%	0.3%	692	33	0	0	0.0%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	0	0	0.0%	0.3%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1187	86	0	0	0.0%	0.4%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	0	0	0.0%	0.4%	553	20	0	0	0.0%	0.0%	539	17	0	0	0.0%	0.0%
17.00	1298	61	0	0	0.0%	0.5%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	0	0	0.0%	0.5%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	483	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	258	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.1%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13171	1048	6	6	0.0%	0.6%	7129	303	4	4	0.1%	1.3%	5243	184	1	0	0.0%	0.0%
24 hr	16112	1358	7	6	0.0%	0.4%	8930	429	5	4	0.1%	0.9%	6616	280	1	0	0.0%	0.0%



**Link 9 - Swale Way south of Reams Way Junction**

**2024 Baseline + K3 Operational + WKN Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	656	57	0	0	0.0%	0.0%	273	20	0	0	0.0%	0.0%	133	13	0	0	0.1%	0.0%
07.00	1416	85	0	0	0.0%	0.4%	346	27	0	0	0.1%	1.2%	188	12	0	0	0.1%	0.0%
08.00	1431	93	0	0	0.0%	0.3%	484	26	0	0	0.1%	1.2%	155	7	0	0	0.0%	0.0%
09.00	917	105	0	0	0.0%	0.3%	574	35	0	0	0.1%	0.9%	324	15	0	0	0.0%	0.0%
10.00	828	107	1	1	0.2%	1.2%	716	25	1	1	0.2%	5.3%	474	15	0	0	0.0%	0.0%
11.00	850	108	1	1	0.2%	1.2%	775	35	1	1	0.2%	3.8%	506	17	0	0	0.0%	0.0%
12.00	917	98	0	0	0.0%	0.3%	749	34	0	0	0.0%	0.9%	522	15	0	0	0.0%	0.0%
13.00	949	92	0	0	0.0%	0.3%	622	32	0	0	0.0%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	0	0	0.0%	0.3%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	0	0	0.0%	0.3%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1432	81	0	0	0.0%	0.4%	547	19	0	0	0.0%	0.0%	440	14	0	0	0.0%	0.0%
17.00	1369	64	0	0	0.0%	0.5%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	0	0	0.0%	0.5%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	477	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.1%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13206	1090	6	6	0.0%	0.5%	6974	315	4	4	0.1%	1.2%	4860	194	1	0	0.0%	0.0%
24 hr	16130	1399	7	6	0.0%	0.4%	8846	423	5	4	0.1%	0.9%	6171	278	1	0	0.0%	0.0%

**Link 10 - Swale Way south of Ridham Avenue Roundabout**

**2024 Baseline + K3 Operational + WKN Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	565	37	0	0	0.0%	0.0%	197	12	0	0	0.0%	0.0%	99	5	0	0	0.1%	0.0%
07.00	1312	66	0	0	0.0%	0.5%	319	16	0	0	0.1%	2.0%	138	5	0	0	0.1%	0.0%
08.00	1401	70	0	0	0.0%	0.4%	421	17	0	0	0.1%	1.9%	139	4	0	0	0.0%	0.0%
09.00	869	82	0	0	0.0%	0.4%	541	18	0	0	0.1%	1.8%	312	4	0	0	0.0%	0.0%
10.00	741	87	1	1	0.2%	1.5%	681	16	1	1	0.2%	8.2%	404	8	0	0	0.0%	0.0%
11.00	739	75	1	1	0.2%	1.8%	763	11	1	1	0.2%	12.0%	518	9	0	0	0.0%	0.0%
12.00	822	81	0	0	0.0%	0.4%	717	15	0	0	0.0%	2.1%	540	11	0	0	0.0%	0.0%
13.00	833	73	0	0	0.0%	0.4%	658	16	0	0	0.0%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	76	0	0	0.0%	0.4%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	0	0	0.0%	0.4%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	0	0	0.0%	0.5%	532	13	0	0	0.0%	0.0%	521	11	0	0	0.0%	0.0%
17.00	1242	55	0	0	0.0%	0.6%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	49	0	0	0.0%	0.6%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	431	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.1%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12150	859	6	6	0.1%	0.7%	6804	168	4	4	0.1%	2.3%	5023	84	1	0	0.0%	0.0%
24 hr	14587	1052	7	6	0.0%	0.5%	8376	243	5	4	0.1%	1.6%	6217	120	1	0	0.0%	0.0%

Link 11 - A249 North of Swale Way Junction

2024 Baseline + K3 Operational + WKN Operational (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.1%	0.0%	436	30	0	0	0.1%	0.0%
07.00	3011	190	1	0	0.0%	0.2%	1138	81	1	0	0.1%	0.5%	581	26	1	0	0.1%	0.0%
08.00	2710	235	1	0	0.0%	0.2%	1542	83	1	0	0.0%	0.5%	871	31	0	0	0.0%	0.0%
09.00	2053	237	0	0	0.0%	0.2%	1887	76	0	0	0.0%	0.5%	1368	48	0	0	0.0%	0.0%
10.00	1965	234	0	0	0.0%	0.2%	2223	85	0	0	0.0%	0.5%	2020	41	0	0	0.0%	0.0%
11.00	2067	230	0	0	0.0%	0.2%	2492	70	0	0	0.0%	0.6%	2331	38	0	0	0.0%	0.0%
12.00	2199	227	0	0	0.0%	0.2%	2640	62	0	0	0.0%	0.6%	2543	44	0	0	0.0%	0.0%
13.00	2234	221	1	0	0.0%	0.2%	2539	61	0	0	0.0%	0.0%	2416	47	0	0	0.0%	0.0%
14.00	2349	239	1	0	0.0%	0.2%	2405	57	0	0	0.0%	0.0%	2133	42	0	0	0.0%	0.0%
15.00	2574	205	0	0	0.0%	0.2%	2333	45	0	0	0.0%	0.0%	2049	45	0	0	0.0%	0.0%
16.00	3163	169	1	0	0.0%	0.2%	2290	49	0	0	0.0%	0.0%	2114	41	0	0	0.0%	0.0%
17.00	3303	126	1	0	0.0%	0.3%	2188	36	1	0	0.0%	0.0%	1964	39	1	0	0.0%	0.0%
18.00	2284	83	0	0	0.0%	0.5%	1847	36	0	0	0.0%	0.0%	1763	43	0	0	0.0%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	0	0	0.0%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	0	0	0.0%	0.0%	822	25	0	0	0.0%	0.0%	703	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.1%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.1%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29912	2396	8	5	0.0%	0.2%	25525	741	5	2	0.0%	0.3%	22154	485	3	0	0.0%	0.0%
24 hr	37856	3118	9	5	0.0%	0.2%	32339	1116	7	2	0.0%	0.2%	27695	709	4	0	0.0%	0.0%

**Link 1 - Swale Way East of B2005 Groveshurst Roundabout**

**2024 Baseline + K3 Operational + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	165	56	0	0	0.0%	0.0%	184	50	0	0	0.0%	0.0%	189	20	0	0	0.0%	0.0%
01.00	153	51	0	0	0.0%	0.0%	163	60	0	0	0.0%	0.0%	162	19	0	0	0.0%	0.0%
02.00	169	47	0	0	0.0%	0.0%	133	50	0	0	0.0%	0.0%	102	18	0	0	0.0%	0.0%
03.00	247	71	0	0	0.0%	0.0%	170	51	0	0	0.0%	0.0%	87	20	0	0	0.0%	0.0%
04.00	371	85	0	0	0.0%	0.0%	209	66	0	0	0.0%	0.0%	105	21	0	0	0.0%	0.0%
05.00	950	140	0	0	0.0%	0.0%	535	98	0	0	0.0%	0.0%	294	52	0	0	0.0%	0.0%
06.00	1125	194	11	0	1.0%	0.0%	527	139	11	0	2.1%	0.0%	256	80	11	0	4.3%	0.0%
07.00	1914	241	48	24	2.5%	9.8%	706	153	48	24	6.8%	15.4%	293	79	41	17	14.2%	21.6%
08.00	2229	231	24	24	1.1%	10.3%	741	134	24	24	3.2%	17.6%	315	75	17	17	5.4%	22.7%
09.00	1350	254	22	22	1.6%	8.5%	803	157	22	22	2.7%	13.8%	325	83	15	15	4.6%	18.1%
10.00	1232	275	22	22	1.8%	7.9%	911	158	22	22	2.4%	13.7%	344	91	15	15	4.4%	16.4%
11.00	1258	262	22	22	1.7%	8.3%	940	153	22	22	2.3%	14.1%	564	89	15	15	2.7%	16.9%
12.00	1377	247	22	22	1.6%	8.8%	962	130	22	22	2.3%	16.7%	864	73	15	15	1.7%	20.7%
13.00	1494	270	18	18	1.2%	6.7%	924	126	12	12	1.2%	9.2%	532	87	12	12	2.2%	13.3%
14.00	1475	262	18	18	1.2%	6.9%	904	123	12	12	1.3%	9.4%	545	81	12	12	2.1%	14.1%
15.00	1596	258	24	24	1.5%	9.2%	916	129	17	17	1.9%	13.2%	546	84	17	17	3.1%	20.3%
16.00	1725	215	35	24	2.0%	11.0%	823	114	28	17	3.4%	15.0%	665	71	28	17	4.2%	24.1%
17.00	1837	179	29	18	1.6%	10.1%	839	99	22	12	2.7%	11.7%	695	68	22	12	3.2%	17.0%
18.00	1214	141	21	18	1.7%	12.9%	695	77	14	12	2.0%	15.0%	456	46	14	12	3.1%	25.2%
19.00	734	102	26	15	3.5%	14.8%	555	73	26	15	4.7%	20.6%	521	56	26	15	5.0%	26.7%
20.00	549	98	15	15	2.7%	15.3%	406	74	15	15	3.7%	20.4%	369	49	15	15	4.1%	30.8%
21.00	394	73	17	17	4.3%	23.3%	322	54	17	17	5.3%	31.4%	231	38	17	17	7.4%	44.4%
22.00	309	54	17	17	5.5%	31.4%	285	30	17	17	6.0%	56.5%	314	15	17	17	5.4%	113.8%
23.00	203	51	0	0	0.0%	0.0%	209	34	0	0	0.0%	0.0%	202	15	0	0	0.0%	0.0%
12 hr	18700	2835	303	254	1.6%	9.0%	10164	1552	263	214	2.6%	13.8%	6144	925	223	174	3.6%	18.8%
24 hr	24069	3857	389	318	1.6%	8.2%	13862	2333	349	278	2.5%	11.9%	8974	1328	309	238	3.4%	17.9%

**Link 2 - Barge Way North of Swale Roundabout**

**2024 Baseline + K3 Operational + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	133	40	0	0	0.0%	0.0%	138	36	0	0	0.0%	0.0%	105	31	0	0	0.0%	0.0%
01.00	136	37	0	0	0.0%	0.0%	112	31	0	0	0.0%	0.0%	92	30	0	0	0.0%	0.0%
02.00	174	38	0	0	0.0%	0.0%	135	40	0	0	0.0%	0.0%	93	27	0	0	0.0%	0.0%
03.00	228	56	0	0	0.0%	0.0%	171	48	0	0	0.0%	0.0%	86	30	0	0	0.0%	0.0%
04.00	313	68	0	0	0.0%	0.0%	216	62	0	0	0.0%	0.0%	109	33	0	0	0.0%	0.0%
05.00	550	104	0	0	0.0%	0.0%	351	90	0	0	0.0%	0.0%	199	60	0	0	0.0%	0.0%
06.00	539	143	11	0	2.0%	0.0%	318	128	11	0	3.5%	0.0%	177	82	11	0	6.2%	0.0%
07.00	544	172	48	24	8.9%	13.9%	330	138	48	24	14.7%	17.3%	178	95	42	17	23.4%	18.0%
08.00	551	170	24	24	4.3%	14.1%	314	141	24	24	7.6%	16.9%	190	84	17	17	9.0%	20.3%
09.00	459	188	22	22	4.8%	11.6%	301	147	22	22	7.3%	14.9%	172	95	15	15	8.7%	15.9%
10.00	470	194	22	22	4.6%	11.3%	312	136	22	22	7.0%	16.1%	176	99	15	15	8.5%	15.1%
11.00	427	193	22	22	5.1%	11.3%	283	142	22	22	7.7%	15.4%	201	112	15	15	7.5%	13.4%
12.00	441	177	22	22	5.0%	12.4%	262	104	22	22	8.3%	21.0%	236	83	15	15	6.4%	18.2%
13.00	540	202	18	18	3.4%	9.1%	326	113	12	12	3.5%	10.2%	236	103	12	12	4.9%	11.2%
14.00	535	211	18	18	3.4%	8.7%	296	125	12	12	3.9%	9.2%	208	101	12	12	5.5%	11.5%
15.00	532	209	24	24	4.5%	11.4%	311	134	17	17	5.5%	12.7%	200	104	17	17	8.5%	16.4%
16.00	549	174	35	24	6.4%	13.7%	263	94	28	17	10.7%	18.2%	238	100	28	17	11.8%	17.0%
17.00	534	138	29	18	5.5%	13.3%	230	87	23	12	9.8%	13.3%	211	78	23	12	10.7%	14.8%
18.00	381	107	21	18	5.5%	17.2%	192	58	14	12	7.3%	20.0%	148	52	14	12	9.5%	22.3%
19.00	253	90	26	15	10.3%	16.7%	139	74	26	15	18.7%	20.2%	135	59	26	15	19.3%	25.4%
20.00	188	69	15	15	8.0%	21.7%	111	62	15	15	13.6%	24.3%	104	55	15	15	14.4%	27.5%
21.00	154	52	17	17	11.1%	32.9%	98	45	17	17	17.4%	37.6%	83	39	17	17	20.6%	43.5%
22.00	118	37	17	17	14.5%	46.0%	76	28	17	17	22.4%	60.5%	82	20	17	17	20.8%	85.0%
23.00	148	46	0	0	0.0%	0.0%	82	29	0	0	0.0%	0.0%	79	25	0	0	0.0%	0.0%
12 hr	5964	2134	305	256	5.1%	12.0%	3420	1417	264	215	7.7%	15.2%	2394	1103	223	174	9.3%	15.8%
24 hr	8898	2914	392	320	4.4%	11.0%	5367	2091	351	279	6.5%	13.4%	3737	1595	310	238	8.3%	14.9%

**Link 3 - Barge Way East of Fleet End Roundabout**

**2024 Baseline + K3 Operational + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	45	23	0	0	0.0%	0.0%	95	19	0	0	0.0%	0.0%	19	15	0	0	0.0%	0.0%
01.00	43	22	0	0	0.0%	0.0%	39	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
02.00	62	24	0	0	0.0%	0.0%	40	30	0	0	0.0%	0.0%	18	15	0	0	0.0%	0.0%
03.00	75	26	0	0	0.0%	0.0%	24	17	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
04.00	116	32	0	0	0.0%	0.0%	43	25	0	0	0.0%	0.0%	25	15	0	0	0.0%	0.0%
05.00	231	41	0	0	0.0%	0.0%	102	22	0	0	0.0%	0.0%	60	16	0	0	0.0%	0.0%
06.00	284	59	11	0	3.9%	0.0%	119	44	11	0	9.3%	0.0%	64	18	11	0	17.3%	0.0%
07.00	330	90	48	24	14.7%	26.4%	154	60	48	24	31.4%	39.5%	86	31	42	17	48.3%	55.6%
08.00	329	98	24	24	7.2%	24.2%	162	64	24	24	14.7%	37.0%	109	28	17	17	15.6%	61.7%
09.00	249	101	22	22	8.8%	21.6%	143	64	22	22	15.3%	33.9%	76	28	15	15	19.9%	54.4%
10.00	238	103	22	22	9.2%	21.1%	131	59	22	22	16.6%	36.8%	76	28	15	15	19.7%	54.4%
11.00	213	100	22	22	10.3%	21.8%	117	45	22	22	18.8%	48.4%	70	30	15	15	21.6%	50.7%
12.00	247	101	22	22	8.9%	21.6%	109	40	22	22	20.1%	54.4%	77	29	15	15	19.5%	52.5%
13.00	286	103	18	18	6.4%	17.9%	133	32	12	12	8.7%	36.4%	113	28	12	12	10.1%	41.7%
14.00	263	113	18	18	7.0%	16.3%	110	31	12	12	10.5%	37.6%	93	28	12	12	12.4%	41.7%
15.00	236	110	24	24	10.1%	21.7%	97	35	17	17	17.5%	49.1%	79	29	17	17	21.5%	59.5%
16.00	268	89	35	24	13.0%	27.0%	104	32	28	17	26.9%	53.8%	98	31	28	17	28.6%	55.6%
17.00	308	68	29	18	9.5%	26.9%	115	29	23	12	19.5%	40.2%	124	28	23	12	18.1%	41.7%
18.00	159	42	21	18	13.1%	43.2%	67	17	14	12	21.0%	67.8%	64	16	14	12	22.0%	72.1%
19.00	93	33	26	15	27.9%	45.0%	52	15	26	15	50.4%	100.4%	55	15	26	15	47.6%	100.4%
20.00	82	32	15	15	18.2%	47.6%	34	17	15	15	43.7%	88.4%	33	15	15	15	45.0%	100.4%
21.00	77	24	17	17	22.2%	70.1%	36	15	17	17	46.8%	113.8%	35	17	17	17	48.1%	100.2%
22.00	50	26	17	17	34.1%	65.8%	21	15	17	17	80.2%	113.8%	28	16	17	17	60.1%	106.6%
23.00	45	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%	22	16	0	0	0.0%	0.0%
12 hr	3126	1119	305	256	9.8%	22.9%	1443	508	264	215	18.3%	42.4%	1066	330	223	174	21.0%	52.9%
24 hr	4329	1484	392	320	9.0%	21.6%	2064	765	351	279	17.0%	36.5%	1458	517	310	238	21.2%	46.1%

**Link 4 - A249 South of Swale Way Junction**

**2024 Baseline + K3 Operational + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	240	67	0	0	0.0%	0.0%	398	68	0	0	0.0%	0.0%	458	45	0	0	0.0%	0.0%
01.00	174	58	0	0	0.0%	0.0%	267	63	0	0	0.0%	0.0%	296	38	0	0	0.0%	0.0%
02.00	172	65	0	0	0.0%	0.0%	227	73	0	0	0.0%	0.0%	209	42	0	0	0.0%	0.0%
03.00	242	83	0	0	0.0%	0.0%	228	73	0	0	0.0%	0.0%	176	44	0	0	0.0%	0.0%
04.00	553	144	0	0	0.0%	0.0%	310	81	0	0	0.0%	0.0%	201	45	0	0	0.0%	0.0%
05.00	1343	244	0	0	0.0%	0.0%	700	145	0	0	0.0%	0.0%	414	80	0	0	0.0%	0.0%
06.00	2221	308	11	0	0.5%	0.0%	1050	186	11	0	1.0%	0.0%	634	114	11	0	1.7%	0.0%
07.00	3153	363	47	23	1.5%	6.5%	1443	217	47	23	3.3%	10.8%	822	124	40	17	4.9%	13.8%
08.00	2910	368	23	23	0.8%	6.4%	1839	229	23	23	1.3%	10.3%	1136	124	17	17	1.5%	13.8%
09.00	2217	381	21	21	1.0%	5.6%	2072	247	21	21	1.0%	8.7%	1645	165	15	15	0.9%	9.1%
10.00	2126	403	21	21	1.0%	5.3%	2367	236	21	21	0.9%	9.1%	2107	181	15	15	0.7%	8.3%
11.00	2160	393	21	21	1.0%	5.5%	2511	231	21	21	0.9%	9.3%	2330	180	15	15	0.6%	8.4%
12.00	2321	387	21	21	0.9%	5.6%	2703	207	21	21	0.8%	10.4%	2190	152	15	15	0.7%	9.9%
13.00	2358	404	18	18	0.8%	4.4%	2640	206	12	12	0.4%	5.6%	2154	161	12	12	0.5%	7.1%
14.00	2600	405	18	18	0.7%	4.4%	2422	192	12	12	0.5%	6.0%	2173	162	12	12	0.5%	7.1%
15.00	2884	400	23	23	0.8%	5.9%	2372	195	17	17	0.7%	8.7%	2142	174	17	17	0.8%	9.8%
16.00	3409	336	34	23	1.0%	7.0%	2313	169	28	17	1.2%	10.1%	2252	167	28	17	1.2%	10.2%
17.00	3694	296	28	18	0.8%	6.1%	2360	159	22	12	0.9%	7.2%	1973	154	22	12	1.1%	7.5%
18.00	2774	255	20	18	0.7%	7.0%	2038	134	14	12	0.7%	8.6%	1863	129	14	12	0.7%	9.0%
19.00	1851	189	26	15	1.4%	7.9%	1601	123	26	15	1.6%	12.3%	1548	115	26	15	1.6%	13.0%
20.00	1277	142	15	15	1.2%	10.6%	1164	91	15	15	1.3%	16.4%	1279	100	15	15	1.2%	15.1%
21.00	956	109	17	17	1.8%	15.6%	973	71	17	17	1.7%	24.0%	935	83	17	17	1.8%	20.4%
22.00	735	74	17	17	2.3%	23.1%	861	49	17	17	2.0%	34.8%	554	45	17	17	3.1%	38.0%
23.00	440	63	0	0	0.0%	0.0%	664	50	0	0	0.0%	0.0%	336	47	0	0	0.0%	0.0%
12 hr	32605	4392	299	252	0.9%	5.7%	27081	2422	260	213	1.0%	8.8%	22787	1873	221	174	1.0%	9.3%
24 hr	42808	5937	384	316	0.9%	5.3%	35525	3494	345	277	1.0%	7.9%	29826	2671	306	238	1.0%	8.9%

Link 5 - A249 between the A2 and M2

2024 Baseline + K3 Operational + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	338	91	0	0	0.0%	0.0%	564	93	0	0	0.0%	0.0%	649	60	0	0	0.0%	0.0%
01.00	243	79	0	0	0.0%	0.0%	377	85	0	0	0.0%	0.0%	419	50	0	0	0.0%	0.0%
02.00	241	87	0	0	0.0%	0.0%	320	99	0	0	0.0%	0.0%	295	55	0	0	0.0%	0.0%
03.00	339	113	0	0	0.0%	0.0%	322	100	0	0	0.0%	0.0%	247	58	0	0	0.0%	0.0%
04.00	782	199	0	0	0.0%	0.0%	438	111	0	0	0.0%	0.0%	282	59	0	0	0.0%	0.0%
05.00	1878	328	0	0	0.0%	0.0%	976	190	0	0	0.0%	0.0%	567	97	0	0	0.0%	0.0%
06.00	3114	406	10	0	0.3%	0.0%	1459	237	10	0	0.7%	0.0%	863	134	10	0	1.2%	0.0%
07.00	4398	463	46	24	1.1%	5.2%	1997	268	46	24	2.3%	8.9%	1130	146	39	17	3.5%	11.6%
08.00	3983	469	24	24	0.6%	5.1%	2559	286	24	24	0.9%	8.3%	1572	148	17	17	1.1%	11.5%
09.00	3071	485	22	22	0.7%	4.5%	2923	308	22	22	0.7%	7.1%	2319	202	15	15	0.6%	7.4%
10.00	2936	512	22	22	0.7%	4.3%	3343	290	22	22	0.7%	7.5%	3005	223	15	15	0.5%	6.7%
11.00	2990	501	22	22	0.7%	4.4%	3561	283	22	22	0.6%	7.7%	3336	222	15	15	0.5%	6.8%
12.00	3219	500	22	22	0.7%	4.4%	3852	258	22	22	0.6%	8.5%	3142	192	15	15	0.5%	7.8%
13.00	3262	517	18	18	0.6%	3.5%	3740	251	12	12	0.3%	4.6%	3064	196	12	12	0.4%	5.9%
14.00	3602	523	18	18	0.5%	3.5%	3444	235	12	12	0.3%	4.9%	3082	202	12	12	0.4%	5.7%
15.00	4030	511	24	24	0.6%	4.7%	3367	235	17	17	0.5%	7.2%	3045	215	17	17	0.6%	7.9%
16.00	4772	426	34	24	0.7%	5.6%	3278	204	27	17	0.8%	8.4%	3195	211	27	17	0.8%	8.1%
17.00	5149	371	28	18	0.6%	5.0%	3351	191	22	12	0.6%	6.0%	2791	193	22	12	0.8%	6.0%
18.00	3911	323	21	18	0.5%	5.7%	2909	164	14	12	0.5%	7.0%	2658	166	14	12	0.5%	6.9%
19.00	2596	244	25	15	1.0%	6.1%	2253	153	25	15	1.1%	9.8%	2177	143	25	15	1.2%	10.5%
20.00	1790	180	15	15	0.8%	8.3%	1639	112	15	15	0.9%	13.4%	1803	123	15	15	0.8%	12.2%
21.00	1337	138	17	17	1.3%	12.3%	1370	87	17	17	1.2%	19.5%	1315	105	17	17	1.3%	16.3%
22.00	1030	100	17	17	1.7%	17.0%	1225	65	17	17	1.4%	26.0%	786	60	17	17	2.2%	28.6%
23.00	621	86	0	0	0.0%	0.0%	945	66	0	0	0.0%	0.0%	475	62	0	0	0.0%	0.0%
12 hr	45324	5600	301	256	0.7%	4.6%	38324	2974	260	215	0.7%	7.2%	32339	2316	219	174	0.7%	7.5%
24 hr	59632	7651	385	320	0.6%	4.2%	50213	4373	344	279	0.7%	6.4%	42217	3321	303	238	0.7%	7.2%



Link 6 - M2 West

2024 Baseline + K3 Operational + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	428	111	0	0	0.0%	0.0%	711	123	0	0	0.0%	0.0%	869	69	0	0	0.0%	0.0%
01.00	326	103	0	0	0.0%	0.0%	472	106	0	0	0.0%	0.0%	533	66	0	0	0.0%	0.0%
02.00	341	117	0	0	0.0%	0.0%	398	99	0	0	0.0%	0.0%	355	51	0	0	0.0%	0.0%
03.00	467	160	0	0	0.0%	0.0%	419	120	0	0	0.0%	0.0%	315	71	0	0	0.0%	0.0%
04.00	1075	267	0	0	0.0%	0.0%	566	151	0	0	0.0%	0.0%	338	62	0	0	0.0%	0.0%
05.00	2830	449	0	0	0.0%	0.0%	1199	213	0	0	0.0%	0.0%	687	98	0	0	0.0%	0.0%
06.00	4268	527	3	0	0.1%	0.0%	1804	269	3	0	0.2%	0.0%	1031	126	3	0	0.3%	0.0%
07.00	5707	549	18	12	0.3%	2.1%	2526	312	18	12	0.7%	3.7%	1411	140	17	11	1.2%	7.5%
08.00	5278	602	12	12	0.2%	1.9%	3240	318	12	12	0.4%	3.7%	1885	144	11	11	0.6%	7.3%
09.00	4374	627	10	10	0.2%	1.7%	3631	316	10	10	0.3%	3.3%	2784	192	9	9	0.3%	4.8%
10.00	4035	614	10	10	0.3%	1.7%	4151	308	10	10	0.3%	3.4%	3764	221	9	9	0.2%	4.2%
11.00	4028	598	10	10	0.3%	1.7%	4601	289	10	10	0.2%	3.6%	4302	249	9	9	0.2%	3.7%
12.00	4378	638	10	10	0.2%	1.6%	4825	266	10	10	0.2%	3.9%	4635	223	9	9	0.2%	4.2%
13.00	4543	660	8	8	0.2%	1.2%	4745	263	7	7	0.1%	2.7%	4402	234	7	7	0.2%	3.0%
14.00	4834	659	8	8	0.2%	1.3%	4370	257	7	7	0.2%	2.8%	4011	232	7	7	0.2%	3.1%
15.00	5340	641	12	12	0.2%	1.8%	4196	240	11	11	0.3%	4.4%	3831	222	11	11	0.3%	4.7%
16.00	6281	519	15	12	0.2%	2.2%	4375	224	14	11	0.3%	4.7%	4240	211	14	11	0.3%	5.0%
17.00	6679	425	11	8	0.2%	1.9%	4156	192	10	7	0.2%	3.7%	3860	198	10	7	0.3%	3.6%
18.00	4988	351	9	8	0.2%	2.3%	3665	172	8	7	0.2%	4.1%	3400	157	8	7	0.2%	4.5%
19.00	3247	272	12	9	0.4%	3.4%	2806	140	12	9	0.4%	6.6%	2808	141	12	9	0.4%	6.6%
20.00	2271	187	9	9	0.4%	5.0%	2029	102	9	9	0.5%	9.1%	2121	103	9	9	0.4%	9.0%
21.00	1668	132	11	11	0.6%	8.0%	1577	83	11	11	0.7%	12.7%	1505	88	11	11	0.7%	12.0%
22.00	1339	112	11	11	0.8%	9.4%	1568	63	11	11	0.7%	16.6%	970	62	11	11	1.1%	17.0%
23.00	800	108	0	0	0.0%	0.0%	1213	69	0	0	0.0%	0.0%	556	79	0	0	0.0%	0.0%
12 hr	60465	6882	135	121	0.2%	1.8%	48483	3159	128	114	0.3%	3.6%	42524	2424	121	107	0.3%	4.4%
24 hr	79526	9426	180	161	0.2%	1.7%	63245	4696	173	154	0.3%	3.3%	54612	3438	167	147	0.3%	4.3%

Link 7 - M2 East

2024 Baseline + K3 Operational + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.0%	0.0%	650	110	0	0	0.0%	0.0%	795	61	0	0	0.0%	0.0%
01.00	297	92	0	0	0.0%	0.0%	430	94	0	0	0.0%	0.0%	487	58	0	0	0.0%	0.0%
02.00	311	105	0	0	0.0%	0.0%	363	88	0	0	0.0%	0.0%	323	44	0	0	0.0%	0.0%
03.00	426	144	0	0	0.0%	0.0%	382	108	0	0	0.0%	0.0%	287	63	0	0	0.0%	0.0%
04.00	984	242	0	0	0.0%	0.0%	517	136	0	0	0.0%	0.0%	308	54	0	0	0.0%	0.0%
05.00	2575	395	0	0	0.0%	0.0%	1082	178	0	0	0.0%	0.0%	611	72	0	0	0.0%	0.0%
06.00	3882	453	1	0	0.0%	0.0%	1623	217	1	0	0.1%	0.0%	913	86	1	0	0.2%	0.0%
07.00	5181	471	5	2	0.1%	0.4%	2281	255	5	2	0.2%	0.8%	1256	98	4	1	0.4%	1.2%
08.00	4760	521	2	2	0.0%	0.4%	2932	262	2	2	0.1%	0.8%	1687	103	1	1	0.1%	1.1%
09.00	3956	539	2	2	0.0%	0.3%	3286	256	2	2	0.1%	0.7%	2510	142	1	1	0.0%	0.7%
10.00	3642	525	2	2	0.1%	0.4%	3759	246	2	2	0.0%	0.8%	3398	165	1	1	0.0%	0.6%
11.00	3638	512	2	2	0.1%	0.4%	4173	229	2	2	0.0%	0.8%	3893	192	1	1	0.0%	0.5%
12.00	3964	558	2	2	0.0%	0.3%	4385	219	2	2	0.0%	0.9%	4208	179	1	1	0.0%	0.6%
13.00	4105	569	2	2	0.0%	0.3%	4299	207	1	1	0.0%	0.4%	3983	180	1	1	0.0%	0.4%
14.00	4376	573	2	2	0.0%	0.3%	3960	206	1	1	0.0%	0.4%	3635	182	1	1	0.0%	0.4%
15.00	4836	552	2	2	0.0%	0.4%	3797	185	1	1	0.0%	0.6%	3464	169	1	1	0.0%	0.7%
16.00	5703	446	3	2	0.1%	0.4%	3971	177	3	1	0.1%	0.6%	3849	165	3	1	0.1%	0.7%
17.00	6058	361	3	2	0.1%	0.5%	3768	150	2	1	0.1%	0.5%	3501	155	2	1	0.1%	0.5%
18.00	4542	305	2	2	0.0%	0.5%	3333	142	1	1	0.0%	0.5%	3093	128	1	1	0.0%	0.6%
19.00	2953	228	3	1	0.1%	0.4%	2552	107	3	1	0.1%	0.9%	2553	108	3	1	0.1%	0.9%
20.00	2064	154	1	1	0.0%	0.7%	1844	76	1	1	0.1%	1.3%	1928	76	1	1	0.1%	1.3%
21.00	1516	108	1	1	0.1%	1.1%	1433	63	1	1	0.1%	1.8%	1367	68	1	1	0.1%	1.7%
22.00	1223	100	1	1	0.1%	1.1%	1436	55	1	1	0.1%	2.1%	887	54	1	1	0.1%	2.1%
23.00	731	96	0	0	0.0%	0.0%	1111	60	0	0	0.0%	0.0%	508	70	0	0	0.0%	0.0%
12 hr	54761	5931	29	22	0.1%	0.4%	43944	2534	23	17	0.1%	0.7%	38476	1859	18	12	0.0%	0.6%
24 hr	72110	8146	36	26	0.0%	0.3%	57367	3827	31	21	0.1%	0.6%	49443	2672	26	16	0.1%	0.6%

Link 8 - Swale Way north of Reams Way Junction

2024 Baseline + K3 Operational + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	644	51	0	0	0.0%	0.0%	240	19	0	0	0.0%	0.0%	129	12	0	0	0.0%	0.0%
07.00	1414	85	0	0	0.0%	0.0%	349	22	0	0	0.0%	0.0%	154	12	0	0	0.1%	0.0%
08.00	1499	83	0	0	0.0%	0.0%	450	30	0	0	0.0%	0.0%	153	14	0	0	0.0%	0.0%
09.00	950	99	0	0	0.0%	0.0%	571	31	0	0	0.0%	0.0%	322	13	0	0	0.0%	0.0%
10.00	839	106	1	1	0.1%	0.9%	704	34	1	1	0.1%	2.9%	437	18	0	0	0.0%	0.0%
11.00	830	100	1	1	0.1%	1.0%	770	23	1	1	0.1%	4.3%	529	24	0	0	0.0%	0.0%
12.00	932	102	0	0	0.0%	0.0%	732	25	0	0	0.0%	0.0%	556	19	0	0	0.0%	0.0%
13.00	900	93	0	0	0.0%	0.0%	692	33	0	0	0.0%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	0	0	0.0%	0.0%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1188	86	0	0	0.0%	0.0%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	0	0	0.0%	0.0%	553	20	0	0	0.0%	0.0%	539	17	0	0	0.0%	0.0%
17.00	1299	61	0	0	0.0%	0.0%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	0	0	0.0%	0.0%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	483	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	259	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.0%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13175	1052	2	2	0.0%	0.2%	7131	304	2	2	0.0%	0.7%	5243	184	0	0	0.0%	0.0%
24 hr	16116	1362	2	2	0.0%	0.1%	8933	431	2	2	0.0%	0.5%	6617	280	0	0	0.0%	0.0%

**Link 9 - Swale Way south of Reams Way Junction**

**2024 Baseline + K3 Operational + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	656	57	0	0	0.0%	0.0%	273	20	0	0	0.0%	0.0%	133	13	0	0	0.0%	0.0%
07.00	1416	85	0	0	0.0%	0.0%	347	27	0	0	0.0%	0.0%	188	12	0	0	0.1%	0.0%
08.00	1432	94	0	0	0.0%	0.0%	484	26	0	0	0.0%	0.0%	155	7	0	0	0.0%	0.0%
09.00	917	105	0	0	0.0%	0.0%	575	35	0	0	0.0%	0.0%	324	15	0	0	0.0%	0.0%
10.00	828	107	1	1	0.1%	0.9%	716	25	1	1	0.1%	4.0%	474	15	0	0	0.0%	0.0%
11.00	850	108	1	1	0.1%	0.9%	775	35	1	1	0.1%	2.8%	506	17	0	0	0.0%	0.0%
12.00	917	98	0	0	0.0%	0.0%	749	34	0	0	0.0%	0.0%	522	15	0	0	0.0%	0.0%
13.00	950	92	0	0	0.0%	0.0%	622	32	0	0	0.0%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	0	0	0.0%	0.0%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	0	0	0.0%	0.0%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1433	82	0	0	0.0%	0.0%	547	19	0	0	0.0%	0.0%	440	14	0	0	0.0%	0.0%
17.00	1370	64	0	0	0.0%	0.0%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	0	0	0.0%	0.0%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	477	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.0%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13210	1093	2	2	0.0%	0.2%	6976	316	2	2	0.0%	0.6%	4860	194	0	0	0.0%	0.0%
24 hr	16134	1403	2	2	0.0%	0.1%	8849	425	2	2	0.0%	0.5%	6172	278	0	0	0.0%	0.0%

**Link 10 - Swale Way south of Ridham Avenue Roundabout**

**2024 Baseline + K3 Operational + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	565	37	0	0	0.0%	0.0%	197	12	0	0	0.0%	0.0%	99	5	0	0	0.1%	0.0%
07.00	1313	67	0	0	0.0%	0.0%	319	16	0	0	0.0%	0.0%	138	5	0	0	0.1%	0.0%
08.00	1401	71	0	0	0.0%	0.0%	421	17	0	0	0.0%	0.0%	139	4	0	0	0.0%	0.0%
09.00	869	83	0	0	0.0%	0.0%	542	18	0	0	0.0%	0.0%	312	4	0	0	0.0%	0.0%
10.00	741	88	1	1	0.1%	1.1%	681	16	1	1	0.1%	6.1%	404	8	0	0	0.0%	0.0%
11.00	740	75	1	1	0.1%	1.3%	764	11	1	1	0.1%	8.8%	518	9	0	0	0.0%	0.0%
12.00	823	81	0	0	0.0%	0.0%	717	15	0	0	0.0%	0.0%	540	11	0	0	0.0%	0.0%
13.00	833	74	0	0	0.0%	0.0%	658	16	0	0	0.0%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	77	0	0	0.0%	0.0%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	0	0	0.0%	0.0%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	0	0	0.0%	0.0%	532	13	0	0	0.0%	0.0%	521	11	0	0	0.0%	0.0%
17.00	1242	56	0	0	0.0%	0.0%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	50	0	0	0.0%	0.0%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	431	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.0%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12154	863	2	2	0.0%	0.2%	6806	170	2	2	0.0%	1.2%	5023	84	0	0	0.0%	0.0%
24 hr	14591	1055	2	2	0.0%	0.2%	8379	245	2	2	0.0%	0.8%	6218	120	0	0	0.0%	0.0%

**Link 11 - A249 North of Swale Way Junction**

**2024 Baseline + K3 Operational + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact		2024 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.0%	0.0%	436	30	0	0	0.1%	0.0%
07.00	3012	191	1	0	0.0%	0.1%	1139	82	1	0	0.1%	0.2%	581	26	1	0	0.1%	0.0%
08.00	2710	235	0	0	0.0%	0.1%	1543	83	0	0	0.0%	0.2%	872	31	0	0	0.0%	0.0%
09.00	2053	238	0	0	0.0%	0.1%	1887	76	0	0	0.0%	0.2%	1368	48	0	0	0.0%	0.0%
10.00	1965	234	0	0	0.0%	0.1%	2223	85	0	0	0.0%	0.2%	2020	41	0	0	0.0%	0.0%
11.00	2067	230	0	0	0.0%	0.1%	2492	71	0	0	0.0%	0.3%	2331	38	0	0	0.0%	0.0%
12.00	2199	227	0	0	0.0%	0.1%	2640	63	0	0	0.0%	0.3%	2543	44	0	0	0.0%	0.0%
13.00	2235	222	0	0	0.0%	0.1%	2540	61	0	0	0.0%	0.0%	2417	47	0	0	0.0%	0.0%
14.00	2350	239	0	0	0.0%	0.1%	2406	57	0	0	0.0%	0.0%	2134	42	0	0	0.0%	0.0%
15.00	2574	205	0	0	0.0%	0.1%	2333	45	0	0	0.0%	0.0%	2049	45	0	0	0.0%	0.0%
16.00	3164	170	0	0	0.0%	0.1%	2290	49	0	0	0.0%	0.0%	2114	41	0	0	0.0%	0.0%
17.00	3303	126	0	0	0.0%	0.2%	2189	36	0	0	0.0%	0.0%	1964	39	0	0	0.0%	0.0%
18.00	2284	83	0	0	0.0%	0.2%	1847	36	0	0	0.0%	0.0%	1763	43	0	0	0.0%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	0	0	0.0%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	0	0	0.0%	0.0%	822	25	0	0	0.0%	0.0%	704	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.0%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.0%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29916	2398	4	2	0.0%	0.1%	25528	742	2	1	0.0%	0.2%	22156	485	1	0	0.0%	0.0%
24 hr	37860	3121	4	2	0.0%	0.1%	32342	1117	3	1	0.0%	0.1%	27697	709	2	0	0.0%	0.0%

**APPENDIX AB: 2024 BASELINE, K3 OPERATIONAL AND 2024 CUMULATIVE DEVELOPMENT PERCENTAGE IMPACT TABLE**

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Link 1 - Swale Way East of B2005 Groveshurst Roundabout

2024 Baseline + K3 Operational + 2024 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	160	51	5	5	3.1%	9.7%	179	45	5	5	2.8%	10.9%	184	15	5	5	2.7%	32.9%
01.00	148	46	5	5	3.3%	10.8%	158	56	5	5	3.1%	8.9%	157	14	5	5	3.2%	35.3%
02.00	164	42	5	5	3.0%	11.8%	128	45	5	5	3.9%	10.9%	97	13	5	5	5.1%	38.1%
03.00	242	66	5	5	2.1%	7.5%	165	46	5	5	3.0%	10.7%	82	15	5	5	6.0%	32.9%
04.00	366	80	5	5	1.4%	6.2%	204	61	5	5	2.4%	8.2%	100	16	5	5	5.0%	30.9%
05.00	945	135	5	5	0.5%	3.7%	530	93	5	5	0.9%	5.3%	289	47	5	5	1.7%	10.6%
06.00	1116	189	9	5	0.8%	2.6%	517	134	9	5	1.8%	3.7%	247	75	9	5	3.7%	6.6%
07.00	1885	216	77	31	4.1%	14.2%	677	128	76	30	11.3%	23.2%	271	61	25	21	9.4%	34.8%
08.00	2193	206	43	32	2.0%	15.3%	705	110	43	32	6.2%	28.8%	286	57	33	21	11.6%	37.0%
09.00	1326	229	30	30	2.2%	13.0%	778	133	30	30	3.8%	22.4%	307	65	20	20	6.6%	31.0%
10.00	1207	251	30	30	2.4%	11.9%	886	133	30	30	3.4%	22.3%	326	74	20	20	6.2%	27.4%
11.00	1233	237	30	30	2.4%	12.5%	915	129	31	31	3.3%	23.8%	547	71	20	20	3.7%	28.4%
12.00	1352	222	30	30	2.2%	13.4%	937	105	30	30	3.2%	28.2%	847	55	20	20	2.4%	36.8%
13.00	1465	245	34	30	2.3%	12.4%	903	108	67	21	7.5%	19.3%	510	69	25	21	4.9%	30.3%
14.00	1446	237	34	30	2.4%	12.8%	882	105	25	21	2.9%	19.9%	523	64	25	21	4.8%	32.7%
15.00	1571	234	31	31	1.9%	13.1%	898	111	21	21	2.4%	19.1%	529	66	21	21	4.0%	32.2%
16.00	1700	190	73	31	4.3%	16.2%	805	96	21	21	2.6%	22.1%	647	53	21	21	3.3%	40.0%
17.00	1800	155	43	31	2.4%	20.2%	810	81	33	21	4.0%	25.8%	666	50	33	21	4.9%	41.8%
18.00	1202	129	18	18	1.5%	13.8%	690	72	8	8	1.2%	11.6%	451	41	8	8	1.8%	20.3%
19.00	729	97	8	8	1.0%	7.9%	550	68	8	8	1.4%	11.2%	516	51	8	8	1.5%	14.9%
20.00	544	93	8	8	1.4%	8.2%	401	69	8	8	1.9%	11.1%	364	44	8	8	2.1%	17.4%
21.00	384	68	13	9	3.3%	12.7%	313	49	13	9	4.1%	17.5%	221	33	13	9	5.8%	25.8%
22.00	300	49	13	9	4.3%	17.5%	276	25	13	9	4.6%	34.2%	305	10	13	9	4.2%	86.2%
23.00	198	46	5	5	2.5%	10.8%	204	29	5	5	2.4%	17.0%	197	10	5	5	2.5%	49.6%
12 hr	18381	2550	471	352	2.6%	13.8%	9886	1311	415	295	4.2%	22.5%	5909	727	273	237	4.6%	32.6%
24 hr	23678	3513	555	424	2.3%	12.1%	13512	2032	500	367	3.7%	18.1%	8667	1070	358	309	4.1%	28.9%



Link 2 - Barge Way North of Swale Roundabout																		
2024 Baseline + K3 Operational + 2024 Cumulative (K3 (0-75MW)) Percentage Impact																		
Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	128	35	5	5	3.9%	14.1%	133	31	5	5	3.7%	15.9%	100	26	5	5	5.0%	18.9%
01.00	131	32	5	5	3.8%	15.6%	107	26	5	5	4.6%	18.9%	87	25	5	5	5.7%	19.7%
02.00	169	33	5	5	2.9%	15.0%	130	35	5	5	3.8%	14.1%	88	22	5	5	5.6%	22.4%
03.00	223	51	5	5	2.2%	9.6%	166	43	5	5	3.0%	11.4%	81	25	5	5	6.1%	19.7%
04.00	308	63	5	5	1.6%	7.9%	211	57	5	5	2.3%	8.8%	104	28	5	5	4.8%	17.6%
05.00	545	99	5	5	0.9%	5.0%	346	85	5	5	1.4%	5.8%	194	55	5	5	2.6%	9.1%
06.00	530	138	9	5	1.7%	3.6%	308	123	9	5	3.0%	4.0%	168	77	9	5	5.5%	6.4%
07.00	515	147	34	30	6.6%	20.5%	301	112	34	30	11.3%	26.9%	156	77	25	21	16.4%	27.6%
08.00	515	145	42	30	8.1%	20.9%	278	116	42	30	15.0%	26.1%	160	66	33	21	20.7%	32.0%
09.00	434	163	29	29	6.6%	17.9%	276	122	29	29	10.4%	24.0%	155	77	20	20	13.1%	26.2%
10.00	446	169	29	29	6.4%	17.3%	287	111	29	29	10.0%	26.3%	159	82	20	20	12.8%	24.8%
11.00	403	168	29	29	7.1%	17.4%	259	117	29	29	11.1%	25.0%	183	94	20	20	11.1%	21.4%
12.00	417	152	29	29	6.9%	19.3%	238	79	29	29	12.1%	36.9%	219	65	20	20	9.3%	31.2%
13.00	511	177	34	30	6.6%	16.9%	304	95	25	21	8.3%	22.0%	214	85	25	21	11.7%	24.6%
14.00	506	186	34	30	6.6%	16.1%	275	107	25	21	9.2%	19.5%	187	83	25	21	13.5%	25.2%
15.00	508	184	30	30	5.9%	16.4%	293	116	21	21	7.2%	18.2%	182	86	21	21	11.7%	24.7%
16.00	524	149	30	30	5.7%	20.3%	245	76	21	21	8.7%	27.9%	221	82	21	21	9.6%	25.8%
17.00	497	113	41	30	8.3%	26.5%	201	69	33	21	16.3%	30.3%	181	60	33	21	18.1%	34.9%
18.00	369	94	17	17	4.5%	18.3%	187	53	8	8	4.4%	15.7%	143	47	8	8	5.8%	17.8%
19.00	248	85	8	8	3.1%	9.0%	134	69	8	8	5.7%	11.0%	130	54	8	8	5.8%	14.1%
20.00	183	64	8	8	4.2%	11.8%	106	57	8	8	7.2%	13.4%	100	50	8	8	7.7%	15.3%
21.00	144	47	13	9	8.9%	18.4%	89	40	13	9	14.5%	21.4%	74	34	13	9	17.5%	25.2%
22.00	109	32	13	9	11.8%	26.9%	67	23	13	9	19.3%	37.2%	73	15	13	9	17.7%	57.2%
23.00	143	41	5	5	3.5%	12.1%	77	24	5	5	6.5%	20.5%	74	20	5	5	6.7%	24.7%
12 hr	5645	1845	375	345	6.6%	18.7%	3143	1174	324	291	10.3%	24.8%	2159	905	273	237	12.7%	26.2%
24 hr	8506	2566	460	417	5.4%	16.2%	5018	1788	409	363	8.2%	20.3%	3430	1337	358	309	10.4%	23.1%

**Link 3 - Barge Way East of Fleet End Roundabout**

**2024 Baseline + K3 Operational + 2024 Cumulative (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	18	5	5	12.5%	27.1%	90	14	5	5	5.5%	35.3%	14	10	5	5	35.3%	49.6%
01.00	38	17	5	5	12.9%	29.4%	34	17	5	5	14.5%	29.0%	11	10	5	5	45.1%	49.6%
02.00	57	20	5	5	8.7%	25.4%	35	25	5	5	14.1%	19.7%	13	10	5	5	38.1%	49.6%
03.00	71	21	5	5	7.0%	23.3%	19	12	5	5	26.0%	41.3%	11	10	5	5	45.1%	49.6%
04.00	111	27	5	5	4.5%	18.2%	38	20	5	5	12.9%	24.7%	20	10	5	5	24.7%	49.6%
05.00	226	36	5	5	2.2%	13.9%	97	17	5	5	5.1%	29.0%	55	11	5	5	9.0%	45.1%
06.00	275	54	9	5	3.4%	9.1%	109	39	9	5	8.4%	12.6%	55	13	9	5	16.8%	38.1%
07.00	301	65	34	30	11.4%	46.3%	125	35	34	30	27.5%	85.6%	64	13	25	21	39.6%	163.0%
08.00	292	73	42	30	14.4%	41.2%	125	39	42	30	33.6%	76.8%	80	10	33	21	41.6%	212.5%
09.00	224	76	29	29	13.1%	38.4%	118	39	29	29	24.8%	74.2%	58	10	20	20	34.9%	202.5%
10.00	213	78	29	29	13.7%	37.3%	106	34	29	29	27.5%	85.2%	59	10	20	20	34.5%	202.5%
11.00	188	75	29	29	15.6%	38.9%	91	20	29	29	31.9%	145.2%	52	12	20	20	39.0%	168.4%
12.00	221	76	29	29	13.2%	38.3%	84	15	29	29	34.9%	194.0%	59	11	20	20	34.1%	183.9%
13.00	256	78	34	30	13.3%	38.5%	111	14	25	21	22.7%	148.9%	92	10	25	21	27.5%	209.2%
14.00	234	88	34	30	14.6%	34.1%	88	13	25	21	28.5%	160.5%	71	10	25	21	35.4%	209.2%
15.00	211	85	30	30	14.3%	35.7%	80	17	21	21	26.7%	124.4%	61	11	21	21	34.6%	192.9%
16.00	243	63	30	30	12.4%	47.6%	87	14	21	21	24.5%	151.3%	81	13	21	21	26.4%	163.0%
17.00	271	43	42	30	15.4%	69.2%	86	11	33	21	38.2%	190.0%	95	10	33	21	34.5%	209.2%
18.00	147	30	17	17	11.8%	57.4%	62	12	8	8	13.4%	68.9%	59	11	8	8	14.1%	75.3%
19.00	88	28	8	8	8.6%	26.8%	47	10	8	8	16.3%	76.2%	50	10	8	8	15.3%	76.2%
20.00	77	27	8	8	9.8%	28.6%	29	12	8	8	25.9%	63.4%	28	10	8	8	26.8%	76.2%
21.00	67	19	13	9	19.1%	44.6%	27	10	13	9	47.3%	86.2%	26	12	13	9	49.1%	71.7%
22.00	41	21	13	9	31.5%	41.2%	12	10	13	9	106.9%	86.2%	19	11	13	9	67.3%	78.3%
23.00	40	17	5	5	12.4%	29.0%	11	10	5	5	45.1%	49.6%	17	11	5	5	29.0%	45.1%
12 hr	2801	831	381	345	13.6%	41.5%	1163	265	327	291	28.1%	109.9%	831	131	273	237	32.9%	180.8%
24 hr	3932	1136	466	417	11.8%	36.7%	1712	462	412	363	24.1%	78.6%	1150	259	358	309	31.2%	119.3%

**Link 4 - A249 South of Swale Way Junction**

**2024 Baseline + K3 Operational + 2024 Cumulative (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	235	62	5	5	2.1%	8.0%	393	63	5	5	1.3%	7.9%	453	40	5	5	1.1%	12.3%
01.00	169	53	5	5	2.9%	9.3%	262	58	5	5	1.9%	8.6%	291	33	5	5	1.7%	14.9%
02.00	167	60	5	5	3.0%	8.3%	222	68	5	5	2.2%	7.3%	204	37	5	5	2.4%	13.6%
03.00	237	78	5	5	2.1%	6.4%	223	68	5	5	2.2%	7.3%	171	39	5	5	2.9%	12.8%
04.00	548	139	5	5	0.9%	3.6%	305	76	5	5	1.6%	6.5%	196	40	5	5	2.5%	12.5%
05.00	1339	239	5	5	0.4%	2.1%	695	140	5	5	0.7%	3.5%	409	75	5	5	1.2%	6.6%
06.00	2212	303	9	5	0.4%	1.6%	1041	181	9	5	0.9%	2.7%	625	109	9	5	1.4%	4.5%
07.00	3124	339	391	35	12.5%	10.5%	1415	193	326	29	23.0%	15.3%	801	106	41	21	5.1%	20.0%
08.00	2874	343	174	41	6.1%	12.1%	1803	204	74	41	4.1%	20.3%	1107	106	60	21	5.4%	20.0%
09.00	2192	357	96	34	4.4%	9.7%	2048	223	89	34	4.3%	15.5%	1628	147	59	20	3.7%	13.8%
10.00	2101	378	86	34	4.1%	9.1%	2343	211	94	34	4.0%	16.3%	2090	164	114	20	5.5%	12.4%
11.00	2136	369	87	34	4.1%	9.3%	2486	206	106	35	4.3%	17.1%	2312	162	126	20	5.4%	12.5%
12.00	2296	362	95	34	4.1%	9.5%	2678	183	128	40	4.8%	21.7%	2172	135	122	20	5.6%	15.0%
13.00	2329	380	104	35	4.5%	9.3%	2619	189	395	21	15.1%	11.1%	2133	144	119	21	5.6%	14.6%
14.00	2571	381	116	35	4.5%	9.2%	2400	174	116	21	4.8%	12.0%	2151	145	85	21	4.0%	14.5%
15.00	2860	376	130	35	4.5%	9.4%	2354	178	106	21	4.5%	12.0%	2124	156	95	21	4.5%	13.6%
16.00	3385	312	409	35	12.1%	11.4%	2296	151	86	21	3.7%	14.0%	2234	150	76	21	3.4%	14.2%
17.00	3658	272	156	41	4.3%	15.1%	2331	142	116	21	5.0%	14.8%	1944	136	81	21	4.2%	15.4%
18.00	2762	243	117	23	4.2%	9.3%	2033	129	82	8	4.0%	6.4%	1858	124	59	8	3.2%	6.7%
19.00	1846	184	8	8	0.4%	4.1%	1596	118	8	8	0.5%	6.5%	1543	111	8	8	0.5%	6.9%
20.00	1272	137	9	8	0.7%	5.6%	1159	86	8	8	0.7%	8.8%	1274	95	8	8	0.6%	8.1%
21.00	947	104	14	9	1.5%	8.3%	964	66	13	9	1.3%	13.1%	926	78	13	9	1.4%	11.0%
22.00	726	69	13	9	1.7%	12.5%	852	44	13	9	1.5%	19.6%	545	40	13	9	2.3%	21.6%
23.00	435	58	5	5	1.1%	8.5%	659	45	5	5	0.8%	11.1%	331	42	5	5	1.5%	11.9%
12 hr	32289	4112	1961	420	6.1%	10.2%	26806	2183	1717	328	6.4%	15.0%	22554	1674	1037	237	4.6%	14.2%
24 hr	42420	5597	2049	492	4.8%	8.8%	35179	3194	1801	401	5.1%	12.5%	29521	2413	1121	309	3.8%	12.8%

Link 5 - A249 between the A2 and M2

2024 Baseline + K3 Operational + 2024 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	333	86	5	5	1.5%	5.8%	559	88	5	5	0.9%	5.7%	644	55	5	5	0.8%	9.0%
01.00	238	74	5	5	2.1%	6.7%	372	80	5	5	1.3%	6.2%	414	45	5	5	1.2%	11.0%
02.00	236	82	5	5	2.1%	6.0%	315	94	5	5	1.6%	5.3%	290	50	5	5	1.7%	10.0%
03.00	334	108	5	5	1.5%	4.6%	317	95	5	5	1.6%	5.2%	242	53	5	5	2.1%	9.3%
04.00	777	194	5	5	0.6%	2.6%	433	106	5	5	1.1%	4.7%	277	54	5	5	1.8%	9.2%
05.00	1873	323	5	5	0.3%	1.5%	971	185	5	5	0.5%	2.7%	562	92	5	5	0.9%	5.4%
06.00	3105	401	9	5	0.3%	1.2%	1451	232	9	5	0.6%	2.1%	854	129	9	5	1.0%	3.9%
07.00	4370	438	546	38	12.5%	8.6%	1968	243	394	30	20.0%	12.4%	1109	129	62	21	5.6%	16.5%
08.00	3947	444	349	45	8.8%	10.1%	2523	261	107	45	4.2%	17.2%	1544	130	99	21	6.4%	16.3%
09.00	3046	460	185	37	6.1%	8.0%	2898	283	167	37	5.8%	12.9%	2301	184	115	20	5.0%	11.0%
10.00	2911	487	159	37	5.5%	7.5%	3318	265	179	37	5.4%	13.8%	2988	206	245	20	8.2%	9.8%
11.00	2965	476	161	37	5.4%	7.7%	3536	258	207	37	5.9%	14.5%	3319	205	273	20	8.2%	9.9%
12.00	3193	475	180	37	5.6%	7.7%	3827	233	254	43	6.6%	18.5%	3125	174	260	20	8.3%	11.6%
13.00	3233	492	196	37	6.1%	7.6%	3719	234	222	21	6.0%	9.0%	3043	179	246	21	8.1%	11.7%
14.00	3573	498	223	37	6.3%	7.5%	3422	217	241	21	7.0%	9.6%	3060	184	168	21	5.5%	11.3%
15.00	4005	486	261	38	6.5%	7.7%	3349	218	222	21	6.6%	9.8%	3027	197	195	21	6.4%	10.8%
16.00	4747	401	590	38	12.4%	9.4%	3261	186	173	21	5.3%	11.4%	3177	193	151	21	4.7%	11.0%
17.00	5113	345	298	45	5.8%	12.9%	3322	173	229	21	6.9%	12.1%	2762	175	147	21	5.3%	12.0%
18.00	3899	310	248	25	6.4%	7.9%	2904	159	182	8	6.3%	5.2%	2653	161	129	8	4.9%	5.2%
19.00	2591	239	8	8	0.3%	3.2%	2248	148	8	8	0.3%	5.1%	2172	138	8	8	0.4%	5.5%
20.00	1785	175	12	8	0.7%	4.3%	1634	107	8	8	0.5%	7.1%	1798	118	8	8	0.4%	6.4%
21.00	1328	133	16	9	1.2%	6.5%	1361	82	12	9	0.9%	10.4%	1306	100	12	9	1.0%	8.6%
22.00	1021	95	12	9	1.2%	9.1%	1216	60	12	9	1.0%	14.3%	777	55	12	9	1.6%	15.8%
23.00	616	81	5	5	0.8%	6.2%	940	61	5	5	0.5%	8.1%	470	57	5	5	1.1%	8.7%
12 hr	45002	5311	3396	448	7.5%	8.4%	38048	2731	2576	342	6.8%	12.5%	32108	2118	2090	237	6.5%	11.2%
24 hr	59239	7303	3489	520	5.9%	7.1%	49865	4070	2660	415	5.3%	10.2%	41914	3063	2173	309	5.2%	10.1%

Link 6 - M2 West

2024 Baseline + K3 Operational + 2024 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	425	108	3	3	0.7%	2.8%	708	120	3	3	0.4%	2.6%	866	66	3	3	0.4%	4.6%
01.00	323	100	3	3	0.9%	3.1%	469	103	3	3	0.7%	3.0%	530	63	3	3	0.6%	4.9%
02.00	338	114	3	3	0.9%	2.7%	395	96	3	3	0.8%	3.2%	351	48	3	3	0.9%	6.4%
03.00	464	157	3	3	0.7%	1.9%	416	117	3	3	0.7%	2.6%	312	68	3	3	1.0%	4.5%
04.00	1072	263	3	3	0.3%	1.2%	563	148	3	3	0.5%	2.1%	335	59	3	3	0.9%	5.2%
05.00	2827	446	3	3	0.1%	0.7%	1196	210	3	3	0.3%	1.5%	684	95	3	3	0.4%	3.2%
06.00	4264	524	4	3	0.1%	0.6%	1800	266	4	3	0.2%	1.2%	1026	123	4	3	0.4%	2.5%
07.00	5694	537	162	18	2.8%	3.3%	2513	300	124	15	4.9%	4.9%	1399	130	23	13	1.6%	10.1%
08.00	5262	589	94	21	1.8%	3.6%	3224	306	36	21	1.1%	6.9%	1870	133	32	13	1.7%	9.8%
09.00	4362	615	53	17	1.2%	2.8%	3619	304	48	17	1.3%	5.7%	2773	181	35	12	1.3%	6.9%
10.00	4023	602	47	17	1.2%	2.9%	4139	296	51	17	1.2%	5.8%	3753	210	66	12	1.8%	6.0%
11.00	4016	586	47	17	1.2%	2.9%	4589	276	58	18	1.3%	6.3%	4291	238	73	12	1.7%	5.3%
12.00	4365	626	52	17	1.2%	2.8%	4813	254	70	20	1.5%	7.9%	4624	212	70	12	1.5%	5.9%
13.00	4530	648	56	18	1.2%	2.7%	4733	252	166	13	3.5%	5.1%	4390	223	67	13	1.5%	5.8%
14.00	4821	647	62	18	1.3%	2.7%	4358	246	66	13	1.5%	5.2%	3999	221	48	13	1.2%	5.8%
15.00	5328	629	71	18	1.3%	2.8%	4185	229	61	13	1.5%	5.7%	3820	211	55	13	1.4%	6.2%
16.00	6269	506	172	18	2.7%	3.5%	4365	213	49	13	1.1%	6.1%	4229	200	44	13	1.0%	6.5%
17.00	6664	412	82	21	1.2%	5.1%	4142	182	63	13	1.5%	7.1%	3845	188	44	13	1.1%	6.9%
18.00	4984	347	63	10	1.3%	2.8%	3662	169	47	5	1.3%	3.0%	3397	154	34	5	1.0%	3.3%
19.00	3244	269	5	5	0.1%	1.7%	2803	137	5	5	0.2%	3.4%	2805	138	5	5	0.2%	3.4%
20.00	2268	184	5	5	0.2%	2.6%	2026	99	5	5	0.2%	4.8%	2118	100	5	5	0.2%	4.7%
21.00	1664	129	6	5	0.4%	4.1%	1572	80	6	5	0.4%	6.7%	1500	85	6	5	0.4%	6.3%
22.00	1335	109	6	5	0.5%	4.9%	1564	60	6	5	0.4%	8.8%	965	59	6	5	0.7%	9.1%
23.00	796	105	3	3	0.4%	2.9%	1210	66	3	3	0.3%	4.7%	553	76	3	3	0.6%	4.0%
12 hr	60318	6744	961	209	1.6%	3.1%	48343	3029	841	178	1.7%	5.9%	42392	2301	592	146	1.4%	6.4%
24 hr	79338	9252	1009	254	1.3%	2.7%	63065	4530	889	222	1.4%	4.9%	54439	3279	640	191	1.2%	5.8%

Link 7 - M2 East

2024 Baseline + K3 Operational + 2024 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.1%	0.3%	649	110	0	0	0.1%	0.3%	795	60	0	0	0.0%	0.6%
01.00	296	92	0	0	0.1%	0.4%	430	94	0	0	0.1%	0.4%	487	57	0	0	0.1%	0.6%
02.00	310	104	0	0	0.1%	0.3%	363	88	0	0	0.1%	0.4%	322	44	0	0	0.1%	0.8%
03.00	425	144	0	0	0.1%	0.2%	382	107	0	0	0.1%	0.3%	287	62	0	0	0.1%	0.5%
04.00	983	241	0	0	0.0%	0.1%	516	136	0	0	0.1%	0.2%	307	53	0	0	0.1%	0.6%
05.00	2574	394	0	0	0.0%	0.1%	1081	177	0	0	0.0%	0.2%	611	72	0	0	0.1%	0.5%
06.00	3881	453	1	0	0.0%	0.1%	1623	217	1	0	0.1%	0.2%	912	85	1	0	0.1%	0.4%
07.00	5178	469	64	5	1.2%	1.1%	2279	253	56	3	2.4%	1.0%	1254	97	4	1	0.3%	1.5%
08.00	4756	519	21	8	0.4%	1.5%	2929	260	11	8	0.4%	2.9%	1685	102	6	1	0.3%	1.4%
09.00	3954	537	11	5	0.3%	0.9%	3284	254	10	5	0.3%	2.0%	2509	141	5	1	0.2%	1.0%
10.00	3640	523	10	5	0.3%	1.0%	3757	244	11	5	0.3%	2.0%	3397	164	11	1	0.3%	0.8%
11.00	3636	509	10	5	0.3%	1.0%	4170	227	12	5	0.3%	2.3%	3891	191	12	1	0.3%	0.7%
12.00	3962	556	11	5	0.3%	0.9%	4383	217	16	7	0.4%	3.3%	4207	178	11	1	0.3%	0.8%
13.00	4103	567	12	5	0.3%	0.9%	4297	205	62	1	1.4%	0.7%	3981	179	11	1	0.3%	0.8%
14.00	4373	571	13	5	0.3%	0.9%	3959	204	11	1	0.3%	0.7%	3634	181	8	1	0.2%	0.8%
15.00	4834	550	14	5	0.3%	0.9%	3796	184	10	1	0.3%	0.8%	3462	168	9	1	0.3%	0.8%
16.00	5701	444	65	5	1.1%	1.1%	3970	176	8	1	0.2%	0.8%	3847	164	7	1	0.2%	0.9%
17.00	6054	359	19	8	0.3%	2.1%	3765	148	11	1	0.3%	0.9%	3498	154	8	1	0.2%	0.9%
18.00	4541	303	13	4	0.3%	1.4%	3333	142	8	1	0.2%	0.4%	3092	128	6	1	0.2%	0.4%
19.00	2953	228	1	1	0.0%	0.2%	2551	107	1	1	0.0%	0.5%	2553	108	1	1	0.0%	0.5%
20.00	2064	153	1	1	0.0%	0.3%	1844	75	1	1	0.0%	0.7%	1928	76	1	1	0.0%	0.7%
21.00	1515	108	1	1	0.1%	0.5%	1432	63	1	1	0.1%	0.9%	1366	68	1	1	0.1%	0.9%
22.00	1222	100	1	1	0.1%	0.6%	1435	55	1	1	0.1%	1.0%	886	54	1	1	0.1%	1.1%
23.00	730	96	0	0	0.0%	0.3%	1111	60	0	0	0.0%	0.6%	507	69	0	0	0.1%	0.5%
12 hr	54731	5906	266	64	0.5%	1.1%	43920	2515	226	40	0.5%	1.6%	38458	1846	97	16	0.3%	0.9%
24 hr	72075	8117	272	69	0.4%	0.9%	57338	3804	233	45	0.4%	1.2%	49419	2655	103	21	0.2%	0.8%

Link 8 - Swale Way north of Reams Way Junction

2024 Baseline + K3 Operational + 2024 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	644	51	0	0	0.0%	0.0%	240	19	0	0	0.0%	0.0%	129	12	0	0	0.0%	0.0%
07.00	1413	84	43	1	3.1%	1.4%	348	22	43	0	12.2%	1.4%	154	12	0	0	0.0%	0.0%
08.00	1498	83	2	2	0.1%	2.4%	450	30	2	2	0.5%	6.8%	153	14	0	0	0.0%	0.0%
09.00	949	98	1	1	0.1%	1.2%	570	31	1	1	0.2%	3.8%	322	13	0	0	0.0%	0.0%
10.00	839	106	1	1	0.1%	1.1%	704	34	1	1	0.2%	3.5%	437	18	0	0	0.0%	0.0%
11.00	830	100	1	1	0.1%	1.2%	770	23	2	2	0.3%	8.9%	529	24	0	0	0.0%	0.0%
12.00	931	102	1	1	0.1%	1.1%	732	25	1	1	0.2%	4.7%	556	19	0	0	0.0%	0.0%
13.00	900	93	1	1	0.1%	1.3%	692	33	42	0	6.1%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	1	1	0.1%	1.2%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1187	86	1	1	0.1%	1.4%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	43	1	3.1%	1.5%	553	20	0	0	0.0%	0.0%	539	17	0	0	0.0%	0.0%
17.00	1298	61	2	2	0.2%	3.3%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	1	1	0.1%	1.9%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	483	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	258	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.1%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13171	1048	100	16	0.8%	1.5%	7129	303	92	8	1.3%	2.6%	5243	184	0	0	0.0%	0.0%
24 hr	16112	1358	100	16	0.6%	1.2%	8930	429	93	8	1.0%	1.8%	6616	280	0	0	0.0%	0.0%

Link 9 - Swale Way south of Reams Way Junction

2024 Baseline + K3 Operational + 2024 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	656	57	0	0	0.0%	0.0%	273	20	0	0	0.0%	0.0%	133	13	0	0	0.0%	0.0%
07.00	1416	85	43	1	3.1%	1.4%	346	27	43	0	12.3%	1.2%	188	12	0	0	0.0%	0.0%
08.00	1431	93	2	2	0.1%	2.2%	484	26	2	2	0.4%	7.8%	155	7	0	0	0.0%	0.0%
09.00	917	105	1	1	0.1%	1.1%	574	35	1	1	0.2%	3.4%	324	15	0	0	0.0%	0.0%
10.00	828	107	1	1	0.1%	1.1%	716	25	1	1	0.2%	4.7%	474	15	0	0	0.0%	0.0%
11.00	850	108	1	1	0.1%	1.1%	775	35	2	2	0.3%	5.8%	506	17	0	0	0.0%	0.0%
12.00	917	98	1	1	0.1%	1.2%	749	34	1	1	0.2%	3.5%	522	15	0	0	0.0%	0.0%
13.00	949	92	1	1	0.1%	1.3%	622	32	42	0	6.8%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	1	1	0.1%	1.1%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	1	1	0.1%	1.3%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1432	81	43	1	3.0%	1.4%	547	19	0	0	0.0%	0.0%	440	14	0	0	0.0%	0.0%
17.00	1369	64	2	2	0.2%	3.2%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	1	1	0.1%	1.9%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	477	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.1%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13206	1090	100	16	0.8%	1.4%	6974	315	92	8	1.3%	2.5%	4860	194	0	0	0.0%	0.0%
24 hr	16130	1399	100	16	0.6%	1.1%	8846	423	93	8	1.0%	1.9%	6171	278	0	0	0.0%	0.0%



**Link 10 - Swale Way south of Ridham Avenue Roundabout**

**2024 Baseline + K3 Operational + 2024 Cumulative (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	565	37	0	0	0.0%	0.0%	197	12	0	0	0.0%	0.0%	99	5	0	0	0.0%	0.0%
07.00	1312	66	43	1	3.3%	1.8%	319	16	43	0	13.3%	2.0%	138	5	0	0	0.0%	0.0%
08.00	1401	70	2	2	0.1%	2.9%	421	17	2	2	0.5%	11.9%	139	4	0	0	0.0%	0.0%
09.00	869	82	1	1	0.1%	1.4%	541	18	1	1	0.2%	6.5%	312	4	0	0	0.0%	0.0%
10.00	741	87	1	1	0.2%	1.3%	681	16	1	1	0.2%	7.3%	404	8	0	0	0.0%	0.0%
11.00	739	75	1	1	0.2%	1.6%	763	11	2	2	0.3%	18.4%	518	9	0	0	0.0%	0.0%
12.00	822	81	1	1	0.1%	1.4%	717	15	1	1	0.2%	7.8%	540	11	0	0	0.0%	0.0%
13.00	833	73	1	1	0.1%	1.6%	658	16	42	0	6.4%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	76	1	1	0.1%	1.5%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	1	1	0.1%	1.5%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	43	1	3.2%	1.8%	532	13	0	0	0.0%	0.0%	521	11	0	0	0.0%	0.0%
17.00	1242	55	2	2	0.2%	3.7%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	49	1	1	0.2%	2.4%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	431	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.1%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12150	859	100	16	0.8%	1.8%	6804	168	92	8	1.4%	4.7%	5023	84	0	0	0.0%	0.0%
24 hr	14587	1052	100	16	0.7%	1.5%	8376	243	93	8	1.1%	3.2%	6217	120	0	0	0.0%	0.0%

Link 11 - A249 North of Swale Way Junction

2024 Baseline + K3 Operational + 2024 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.0%	0.0%	436	30	0	0	0.0%	0.0%
07.00	3011	190	45	0	1.5%	0.1%	1138	81	14	0	1.2%	0.3%	581	26	9	0	1.5%	0.0%
08.00	2710	235	65	0	2.4%	0.1%	1542	83	12	0	0.8%	0.3%	871	31	15	0	1.7%	0.0%
09.00	2053	237	34	0	1.7%	0.1%	1887	76	29	0	1.5%	0.3%	1368	48	21	0	1.5%	0.0%
10.00	1965	234	28	0	1.4%	0.1%	2223	85	32	0	1.4%	0.3%	2020	41	50	0	2.5%	0.0%
11.00	2067	230	29	0	1.4%	0.1%	2492	70	39	0	1.6%	0.4%	2331	38	57	0	2.4%	0.0%
12.00	2199	227	34	0	1.5%	0.1%	2640	62	49	0	1.8%	0.4%	2543	44	56	0	2.2%	0.0%
13.00	2234	221	36	0	1.6%	0.1%	2539	61	57	0	2.2%	0.0%	2416	47	52	0	2.2%	0.0%
14.00	2349	239	42	0	1.8%	0.1%	2405	57	50	0	2.1%	0.0%	2133	42	33	0	1.6%	0.0%
15.00	2574	205	52	0	2.0%	0.1%	2333	45	47	0	2.0%	0.0%	2049	45	41	0	2.0%	0.0%
16.00	3163	169	59	0	1.9%	0.1%	2290	49	37	0	1.6%	0.0%	2114	41	30	0	1.4%	0.0%
17.00	3303	126	59	0	1.8%	0.2%	2188	36	46	0	2.1%	0.0%	1964	39	27	0	1.4%	0.0%
18.00	2284	83	53	0	2.3%	0.3%	1847	36	41	0	2.2%	0.0%	1763	43	28	0	1.6%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	1	0	0.1%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	1	0	0.1%	0.0%	822	25	0	0	0.0%	0.0%	703	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.1%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.1%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29912	2396	536	3	1.8%	0.1%	25525	741	452	1	1.8%	0.2%	22154	485	421	0	1.9%	0.0%
24 hr	37856	3118	539	3	1.4%	0.1%	32339	1116	453	1	1.4%	0.1%	27695	709	422	0	1.5%	0.0%

**Link 1 - Swale Way East of B2005 Groveshurst Roundabout**

**2024 Baseline + K3 Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	165	56	0	0	0.0%	0.0%	184	50	0	0	0.0%	0.0%	189	20	0	0	0.0%	0.0%
01.00	153	51	0	0	0.0%	0.0%	163	60	0	0	0.0%	0.0%	162	19	0	0	0.0%	0.0%
02.00	169	47	0	0	0.0%	0.0%	133	50	0	0	0.0%	0.0%	102	18	0	0	0.0%	0.0%
03.00	247	71	0	0	0.0%	0.0%	170	51	0	0	0.0%	0.0%	87	20	0	0	0.0%	0.0%
04.00	371	85	0	0	0.0%	0.0%	209	66	0	0	0.0%	0.0%	105	21	0	0	0.0%	0.0%
05.00	950	140	0	0	0.0%	0.0%	535	98	0	0	0.0%	0.0%	294	52	0	0	0.0%	0.0%
06.00	1125	194	0	0	0.0%	0.0%	527	139	0	0	0.0%	0.0%	256	80	0	0	0.0%	0.0%
07.00	1914	241	48	6	2.5%	2.5%	706	153	47	5	6.7%	3.3%	293	79	4	4	1.2%	4.6%
08.00	2229	231	7	7	0.3%	2.9%	741	134	7	7	0.9%	5.1%	315	75	4	4	1.2%	4.9%
09.00	1350	254	5	5	0.4%	1.9%	803	157	5	5	0.6%	3.1%	325	83	3	3	0.8%	3.2%
10.00	1232	275	5	5	0.4%	1.8%	911	158	5	5	0.5%	3.1%	344	91	3	3	0.8%	2.9%
11.00	1258	262	5	5	0.4%	1.9%	940	153	6	6	0.6%	3.8%	564	89	3	3	0.5%	3.0%
12.00	1377	247	5	5	0.4%	2.0%	962	130	5	5	0.5%	3.8%	864	73	3	3	0.3%	3.7%
13.00	1494	270	6	6	0.4%	2.1%	924	126	45	3	4.9%	2.6%	532	87	3	3	0.6%	3.8%
14.00	1475	262	6	6	0.4%	2.1%	904	123	3	3	0.4%	2.7%	545	81	3	3	0.6%	4.1%
15.00	1596	258	6	6	0.4%	2.3%	916	129	4	4	0.4%	2.8%	546	84	4	4	0.7%	4.4%
16.00	1725	215	48	6	2.8%	2.8%	823	114	4	4	0.4%	3.2%	665	71	4	4	0.5%	5.2%
17.00	1837	179	6	6	0.4%	3.6%	839	99	3	3	0.4%	3.4%	695	68	3	3	0.5%	4.9%
18.00	1214	141	6	6	0.5%	4.0%	695	77	3	3	0.5%	4.3%	456	46	3	3	0.7%	7.3%
19.00	734	102	3	3	0.4%	2.6%	555	73	3	3	0.5%	3.6%	521	56	3	3	0.5%	4.7%
20.00	549	98	3	3	0.5%	2.7%	406	74	3	3	0.7%	3.6%	369	49	3	3	0.7%	5.4%
21.00	394	73	4	4	0.9%	5.0%	322	54	4	4	1.1%	6.7%	231	38	4	4	1.6%	9.5%
22.00	309	54	4	4	1.2%	6.8%	285	30	4	4	1.3%	12.1%	314	15	4	4	1.2%	24.4%
23.00	203	51	0	0	0.0%	0.0%	209	34	0	0	0.0%	0.0%	202	15	0	0	0.0%	0.0%
12 hr	18700	2835	152	68	0.8%	2.4%	10164	1552	137	53	1.4%	3.4%	6144	925	39	39	0.6%	4.2%
24 hr	24069	3857	165	80	0.7%	2.1%	13862	2333	150	66	1.1%	2.8%	8974	1328	51	51	0.6%	3.9%

Link 2 - Barge Way North of Swale Roundabout

2024 Baseline + K3 Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	133	40	0	0	0.0%	0.0%	138	36	0	0	0.0%	0.0%	105	31	0	0	0.0%	0.0%
01.00	136	37	0	0	0.0%	0.0%	112	31	0	0	0.0%	0.0%	92	30	0	0	0.0%	0.0%
02.00	174	38	0	0	0.0%	0.0%	135	40	0	0	0.0%	0.0%	93	27	0	0	0.0%	0.0%
03.00	228	56	0	0	0.0%	0.0%	171	48	0	0	0.0%	0.0%	86	30	0	0	0.0%	0.0%
04.00	313	68	0	0	0.0%	0.0%	216	62	0	0	0.0%	0.0%	109	33	0	0	0.0%	0.0%
05.00	550	104	0	0	0.0%	0.0%	351	90	0	0	0.0%	0.0%	199	60	0	0	0.0%	0.0%
06.00	539	143	0	0	0.0%	0.0%	318	128	0	0	0.0%	0.0%	177	82	0	0	0.0%	0.0%
07.00	544	172	5	5	0.9%	3.0%	330	138	5	5	1.5%	3.7%	178	95	4	4	2.1%	3.9%
08.00	551	170	5	5	0.9%	3.0%	314	141	5	5	1.6%	3.6%	190	84	4	4	1.9%	4.4%
09.00	459	188	4	4	0.9%	2.2%	301	147	4	4	1.4%	2.8%	172	95	3	3	1.5%	2.8%
10.00	470	194	4	4	0.9%	2.1%	312	136	4	4	1.3%	3.0%	176	99	3	3	1.5%	2.7%
11.00	427	193	4	4	1.0%	2.1%	283	142	4	4	1.5%	2.9%	201	112	3	3	1.3%	2.4%
12.00	441	177	4	4	0.9%	2.3%	262	104	4	4	1.6%	4.0%	236	83	3	3	1.1%	3.2%
13.00	540	202	5	5	0.9%	2.4%	326	113	3	3	1.0%	2.9%	236	103	3	3	1.4%	3.2%
14.00	535	211	5	5	0.9%	2.3%	296	125	3	3	1.1%	2.7%	208	101	3	3	1.6%	3.3%
15.00	532	209	5	5	1.0%	2.4%	311	134	4	4	1.2%	2.7%	200	104	4	4	1.8%	3.5%
16.00	549	174	5	5	0.9%	2.9%	263	94	4	4	1.4%	3.9%	238	100	4	4	1.5%	3.7%
17.00	534	138	5	5	0.9%	3.5%	230	87	3	3	1.4%	3.8%	211	78	3	3	1.6%	4.3%
18.00	381	107	5	5	1.3%	4.5%	192	58	3	3	1.7%	5.8%	148	52	3	3	2.2%	6.4%
19.00	253	90	3	3	1.0%	2.9%	139	74	3	3	1.9%	3.6%	135	59	3	3	2.0%	4.5%
20.00	188	69	3	3	1.4%	3.8%	111	62	3	3	2.4%	4.3%	104	55	3	3	2.5%	4.9%
21.00	154	52	4	4	2.4%	7.1%	98	45	4	4	3.7%	8.1%	83	39	4	4	4.4%	9.3%
22.00	118	37	4	4	3.1%	9.9%	76	28	4	4	4.8%	13.0%	82	20	4	4	4.5%	18.3%
23.00	148	46	0	0	0.0%	0.0%	82	29	0	0	0.0%	0.0%	79	25	0	0	0.0%	0.0%
12 hr	5964	2134	56	56	0.9%	2.6%	3420	1417	47	47	1.4%	3.3%	2394	1103	39	39	1.6%	3.5%
24 hr	8898	2914	69	69	0.8%	2.4%	5367	2091	60	60	1.1%	2.9%	3737	1595	51	51	1.4%	3.2%

**Link 3 - Barge Way East of Fleet End Roundabout**

**2024 Baseline + K3 Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	45	23	0	0	0.0%	0.0%	95	19	0	0	0.0%	0.0%	19	15	0	0	0.0%	0.0%
01.00	43	22	0	0	0.0%	0.0%	39	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
02.00	62	24	0	0	0.0%	0.0%	40	30	0	0	0.0%	0.0%	18	15	0	0	0.0%	0.0%
03.00	75	26	0	0	0.0%	0.0%	24	17	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
04.00	116	32	0	0	0.0%	0.0%	43	25	0	0	0.0%	0.0%	25	15	0	0	0.0%	0.0%
05.00	231	41	0	0	0.0%	0.0%	102	22	0	0	0.0%	0.0%	60	16	0	0	0.0%	0.0%
06.00	284	59	0	0	0.0%	0.0%	119	44	0	0	0.0%	0.0%	64	18	0	0	0.0%	0.0%
07.00	330	90	5	5	1.5%	5.7%	154	60	5	5	3.3%	8.5%	86	31	4	4	4.2%	11.9%
08.00	329	98	5	5	1.6%	5.2%	162	64	5	5	3.2%	7.9%	109	28	4	4	3.3%	13.2%
09.00	249	101	4	4	1.7%	4.1%	143	64	4	4	2.9%	6.4%	76	28	3	3	3.5%	9.6%
10.00	238	103	4	4	1.7%	4.0%	131	59	4	4	3.1%	6.9%	76	28	3	3	3.5%	9.6%
11.00	213	100	4	4	1.9%	4.1%	117	45	4	4	3.5%	9.1%	70	30	3	3	3.8%	9.0%
12.00	247	101	4	4	1.7%	4.1%	109	40	4	4	3.8%	10.3%	77	29	3	3	3.4%	9.3%
13.00	286	103	5	5	1.7%	4.7%	133	32	3	3	2.5%	10.5%	113	28	3	3	2.9%	12.1%
14.00	263	113	5	5	1.8%	4.2%	110	31	3	3	3.0%	10.9%	93	28	3	3	3.6%	12.1%
15.00	236	110	5	5	2.2%	4.7%	97	35	4	4	3.8%	10.5%	79	29	4	4	4.6%	12.8%
16.00	268	89	5	5	1.9%	5.8%	104	32	4	4	3.5%	11.6%	98	31	4	4	3.7%	11.9%
17.00	308	68	5	5	1.6%	7.0%	115	29	3	3	2.9%	11.6%	124	28	3	3	2.7%	12.1%
18.00	159	42	5	5	3.0%	11.3%	67	17	3	3	5.0%	19.6%	64	16	3	3	5.2%	20.8%
19.00	93	33	3	3	2.8%	8.0%	52	15	3	3	5.1%	17.7%	55	15	3	3	4.9%	17.7%
20.00	82	32	3	3	3.2%	8.4%	34	17	3	3	7.7%	15.6%	33	15	3	3	8.0%	17.7%
21.00	77	24	4	4	4.8%	15.1%	36	15	4	4	10.0%	24.4%	35	17	4	4	10.3%	21.5%
22.00	50	26	4	4	7.3%	14.1%	21	15	4	4	17.2%	24.4%	28	16	4	4	12.9%	22.9%
23.00	45	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%	22	16	0	0	0.0%	0.0%
12 hr	3126	1119	56	56	1.8%	5.0%	1443	508	47	47	3.3%	9.3%	1066	330	39	39	3.6%	11.7%
24 hr	4329	1484	69	69	1.6%	4.6%	2064	765	60	60	2.9%	7.8%	1458	517	51	51	3.5%	9.9%

**Link 4 - A249 South of Swale Way Junction**

**2024 Baseline + K3 Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	240	67	0	0	0.0%	0.0%	398	68	0	0	0.0%	0.0%	458	45	0	0	0.0%	0.0%
01.00	174	58	0	0	0.0%	0.0%	267	63	0	0	0.0%	0.0%	296	38	0	0	0.0%	0.0%
02.00	172	65	0	0	0.0%	0.0%	227	73	0	0	0.0%	0.0%	209	42	0	0	0.0%	0.0%
03.00	242	83	0	0	0.0%	0.0%	228	73	0	0	0.0%	0.0%	176	44	0	0	0.0%	0.0%
04.00	553	144	0	0	0.0%	0.0%	310	81	0	0	0.0%	0.0%	201	45	0	0	0.0%	0.0%
05.00	1343	244	0	0	0.0%	0.0%	700	145	0	0	0.0%	0.0%	414	80	0	0	0.0%	0.0%
06.00	2221	308	0	0	0.0%	0.0%	1050	186	0	0	0.0%	0.0%	634	114	0	0	0.0%	0.0%
07.00	3153	363	363	11	11.5%	3.0%	1443	217	297	5	20.6%	2.3%	822	124	19	4	2.3%	3.0%
08.00	2910	368	138	17	4.8%	4.6%	1839	229	38	17	2.1%	7.4%	1136	124	31	4	2.7%	3.0%
09.00	2217	381	72	10	3.2%	2.6%	2072	247	64	10	3.1%	4.1%	1645	165	42	3	2.5%	1.6%
10.00	2126	403	61	10	2.9%	2.5%	2367	236	69	10	2.9%	4.2%	2107	181	96	3	4.6%	1.5%
11.00	2160	393	62	10	2.9%	2.5%	2511	231	82	11	3.3%	4.7%	2330	180	108	3	4.6%	1.5%
12.00	2321	387	71	10	3.0%	2.6%	2703	207	104	15	3.8%	7.3%	2190	152	104	3	4.8%	1.7%
13.00	2358	404	76	11	3.2%	2.6%	2640	206	373	3	14.1%	1.6%	2154	161	97	3	4.5%	2.1%
14.00	2600	405	87	11	3.4%	2.6%	2422	192	94	3	3.9%	1.7%	2173	162	64	3	2.9%	2.0%
15.00	2884	400	105	11	3.7%	2.8%	2372	195	88	4	3.7%	1.9%	2142	174	78	4	3.6%	2.1%
16.00	3409	336	385	11	11.3%	3.3%	2313	169	68	4	3.0%	2.2%	2252	167	58	4	2.6%	2.2%
17.00	3694	296	120	17	3.2%	5.6%	2360	159	87	3	3.7%	2.1%	1973	154	52	3	2.6%	2.2%
18.00	2774	255	106	11	3.8%	4.2%	2038	134	77	3	3.8%	2.5%	1863	129	54	3	2.9%	2.6%
19.00	1851	189	3	3	0.2%	1.4%	1601	123	3	3	0.2%	2.2%	1548	115	3	3	0.2%	2.3%
20.00	1277	142	4	3	0.3%	1.9%	1164	91	3	3	0.2%	2.9%	1279	100	3	3	0.2%	2.7%
21.00	956	109	5	4	0.5%	3.4%	973	71	4	4	0.4%	5.2%	935	83	4	4	0.4%	4.4%
22.00	735	74	4	4	0.5%	5.0%	861	49	4	4	0.4%	7.5%	554	45	4	4	0.7%	8.2%
23.00	440	63	0	0	0.0%	0.0%	664	50	0	0	0.0%	0.0%	336	47	0	0	0.0%	0.0%
12 hr	32605	4392	1646	139	5.0%	3.2%	27081	2422	1442	89	5.3%	3.7%	22787	1873	804	39	3.5%	2.1%
24 hr	42808	5937	1662	152	3.9%	2.6%	35525	3494	1455	101	4.1%	2.9%	29826	2671	816	51	2.7%	1.9%

Link 5 - A249 between the A2 and M2

2024 Baseline + K3 Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	338	91	0	0	0.0%	0.0%	564	93	0	0	0.0%	0.0%	649	60	0	0	0.0%	0.0%
01.00	243	79	0	0	0.0%	0.0%	377	85	0	0	0.0%	0.0%	419	50	0	0	0.0%	0.0%
02.00	241	87	0	0	0.0%	0.0%	320	99	0	0	0.0%	0.0%	295	55	0	0	0.0%	0.0%
03.00	339	113	0	0	0.0%	0.0%	322	100	0	0	0.0%	0.0%	247	58	0	0	0.0%	0.0%
04.00	782	199	0	0	0.0%	0.0%	438	111	0	0	0.0%	0.0%	282	59	0	0	0.0%	0.0%
05.00	1878	328	0	0	0.0%	0.0%	976	190	0	0	0.0%	0.0%	567	97	0	0	0.0%	0.0%
06.00	3114	406	0	0	0.0%	0.0%	1459	237	0	0	0.0%	0.0%	863	134	0	0	0.0%	0.0%
07.00	4398	463	517	13	11.8%	2.7%	1997	268	365	5	18.3%	1.9%	1130	146	40	4	3.6%	2.5%
08.00	3983	469	313	20	7.8%	4.2%	2559	286	71	20	2.8%	6.9%	1572	148	70	4	4.5%	2.5%
09.00	3071	485	159	12	5.2%	2.4%	2923	308	142	12	4.9%	3.7%	2319	202	97	3	4.2%	1.3%
10.00	2936	512	134	12	4.6%	2.2%	3343	290	154	12	4.6%	4.0%	3005	223	228	3	7.6%	1.2%
11.00	2990	501	136	12	4.5%	2.3%	3561	283	182	12	5.1%	4.3%	3336	222	256	3	7.7%	1.2%
12.00	3219	500	155	12	4.8%	2.3%	3852	258	229	18	5.9%	7.0%	3142	192	242	3	7.7%	1.4%
13.00	3262	517	168	12	5.1%	2.4%	3740	251	200	3	5.4%	1.3%	3064	196	225	3	7.3%	1.7%
14.00	3602	523	195	12	5.4%	2.3%	3444	235	219	3	6.4%	1.4%	3082	202	147	3	4.8%	1.6%
15.00	4030	511	236	13	5.8%	2.4%	3367	235	204	4	6.1%	1.6%	3045	215	178	4	5.8%	1.7%
16.00	4772	426	565	13	11.8%	2.9%	3278	204	155	4	4.7%	1.8%	3195	211	133	4	4.2%	1.7%
17.00	5149	371	262	20	5.1%	5.3%	3351	191	201	3	6.0%	1.7%	2791	193	118	3	4.2%	1.7%
18.00	3911	323	235	12	6.0%	3.8%	2909	164	177	3	6.1%	2.0%	2658	166	124	3	4.7%	2.0%
19.00	2596	244	3	3	0.1%	1.1%	2253	153	3	3	0.1%	1.7%	2177	143	3	3	0.1%	1.9%
20.00	1790	180	7	3	0.4%	1.5%	1639	112	3	3	0.2%	2.4%	1803	123	3	3	0.1%	2.2%
21.00	1337	138	8	4	0.6%	2.6%	1370	87	4	4	0.3%	4.2%	1315	105	4	4	0.3%	3.5%
22.00	1030	100	4	4	0.4%	3.7%	1225	65	4	4	0.3%	5.6%	786	60	4	4	0.5%	6.1%
23.00	621	86	0	0	0.0%	0.0%	945	66	0	0	0.0%	0.0%	475	62	0	0	0.0%	0.0%
12 hr	45324	5600	3074	159	6.8%	2.8%	38324	2974	2299	99	6.0%	3.3%	32339	2316	1858	39	5.7%	1.7%
24 hr	59632	7651	3096	172	5.2%	2.2%	50213	4373	2312	112	4.6%	2.6%	42217	3321	1871	51	4.4%	1.5%

Link 6 - M2 West																		
2024 Baseline + K3 Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact																		
Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	428	111	0	0	0.0%	0.0%	711	123	0	0	0.0%	0.0%	869	69	0	0	0.0%	0.0%
01.00	326	103	0	0	0.0%	0.0%	472	106	0	0	0.0%	0.0%	533	66	0	0	0.0%	0.0%
02.00	341	117	0	0	0.0%	0.0%	398	99	0	0	0.0%	0.0%	355	51	0	0	0.0%	0.0%
03.00	467	160	0	0	0.0%	0.0%	419	120	0	0	0.0%	0.0%	315	71	0	0	0.0%	0.0%
04.00	1075	267	0	0	0.0%	0.0%	566	151	0	0	0.0%	0.0%	338	62	0	0	0.0%	0.0%
05.00	2830	449	0	0	0.0%	0.0%	1199	213	0	0	0.0%	0.0%	687	98	0	0	0.0%	0.0%
06.00	4268	527	0	0	0.0%	0.0%	1804	269	0	0	0.0%	0.0%	1031	126	0	0	0.0%	0.0%
07.00	5707	549	148	6	2.6%	1.0%	2526	312	111	2	4.4%	0.8%	1411	140	11	2	0.8%	1.6%
08.00	5278	602	79	9	1.5%	1.5%	3240	318	21	9	0.7%	2.8%	1885	144	18	2	1.0%	1.6%
09.00	4374	627	41	5	0.9%	0.8%	3631	316	36	5	1.0%	1.6%	2784	192	24	2	0.9%	0.9%
10.00	4035	614	34	5	0.9%	0.8%	4151	308	39	5	0.9%	1.7%	3764	221	56	2	1.5%	0.7%
11.00	4028	598	35	5	0.9%	0.9%	4601	289	46	5	1.0%	1.9%	4302	249	62	2	1.4%	0.7%
12.00	4378	638	39	5	0.9%	0.8%	4825	266	58	8	1.2%	3.0%	4635	223	59	2	1.3%	0.7%
13.00	4543	660	43	6	0.9%	0.8%	4745	263	154	2	3.3%	0.8%	4402	234	55	2	1.2%	0.9%
14.00	4834	659	49	6	1.0%	0.8%	4370	257	54	2	1.2%	0.8%	4011	232	36	2	0.9%	0.9%
15.00	5340	641	59	6	1.1%	0.9%	4196	240	50	2	1.2%	0.9%	3831	222	44	2	1.1%	1.0%
16.00	6281	519	160	6	2.5%	1.1%	4375	224	39	2	0.9%	1.0%	4240	211	33	2	0.8%	1.1%
17.00	6679	425	67	9	1.0%	2.1%	4156	192	49	2	1.2%	1.1%	3860	198	30	2	0.8%	1.0%
18.00	4988	351	59	6	1.2%	1.6%	3665	172	44	2	1.2%	1.2%	3400	157	31	2	0.9%	1.3%
19.00	3247	272	2	2	0.1%	0.6%	2806	140	2	2	0.1%	1.2%	2808	141	2	2	0.1%	1.2%
20.00	2271	187	2	2	0.1%	0.9%	2029	102	2	2	0.1%	1.6%	2121	103	2	2	0.1%	1.6%
21.00	1668	132	2	2	0.1%	1.7%	1577	83	2	2	0.1%	2.7%	1505	88	2	2	0.1%	2.6%
22.00	1339	112	2	2	0.2%	2.0%	1568	63	2	2	0.1%	3.6%	970	62	2	2	0.2%	3.7%
23.00	800	108	0	0	0.0%	0.0%	1213	69	0	0	0.0%	0.0%	556	79	0	0	0.0%	0.0%
12 hr	60465	6882	813	72	1.3%	1.0%	48483	3159	701	48	1.4%	1.5%	42524	2424	459	24	1.1%	1.0%
24 hr	79526	9426	821	80	1.0%	0.8%	63245	4696	709	56	1.1%	1.2%	54612	3438	467	32	0.9%	0.9%



Link 7 - M2 East

2024 Baseline + K3 Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.0%	0.0%	650	110	0	0	0.0%	0.0%	795	61	0	0	0.0%	0.0%
01.00	297	92	0	0	0.0%	0.0%	430	94	0	0	0.0%	0.0%	487	58	0	0	0.0%	0.0%
02.00	311	105	0	0	0.0%	0.0%	363	88	0	0	0.0%	0.0%	323	44	0	0	0.0%	0.0%
03.00	426	144	0	0	0.0%	0.0%	382	108	0	0	0.0%	0.0%	287	63	0	0	0.0%	0.0%
04.00	984	242	0	0	0.0%	0.0%	517	136	0	0	0.0%	0.0%	308	54	0	0	0.0%	0.0%
05.00	2575	395	0	0	0.0%	0.0%	1082	178	0	0	0.0%	0.0%	611	72	0	0	0.0%	0.0%
06.00	3882	453	0	0	0.0%	0.0%	1623	217	0	0	0.0%	0.0%	913	86	0	0	0.0%	0.0%
07.00	5181	471	61	3	1.2%	0.6%	2281	255	53	0	2.3%	0.2%	1256	98	2	0	0.1%	0.3%
08.00	4760	521	18	5	0.4%	1.0%	2932	262	8	5	0.3%	2.1%	1687	103	3	0	0.2%	0.2%
09.00	3956	539	9	3	0.2%	0.5%	3286	256	8	3	0.3%	1.1%	2510	142	4	0	0.2%	0.1%
10.00	3642	525	8	3	0.2%	0.5%	3759	246	9	3	0.2%	1.2%	3398	165	10	0	0.3%	0.1%
11.00	3638	512	8	3	0.2%	0.6%	4173	229	10	3	0.2%	1.4%	3893	192	11	0	0.3%	0.1%
12.00	3964	558	9	3	0.2%	0.5%	4385	219	14	5	0.3%	2.3%	4208	179	10	0	0.2%	0.1%
13.00	4105	569	9	3	0.2%	0.5%	4299	207	60	0	1.4%	0.1%	3983	180	9	0	0.2%	0.1%
14.00	4376	573	11	3	0.2%	0.5%	3960	206	9	0	0.2%	0.1%	3635	182	6	0	0.2%	0.1%
15.00	4836	552	12	3	0.3%	0.5%	3797	185	9	0	0.2%	0.1%	3464	169	7	0	0.2%	0.1%
16.00	5703	446	63	3	1.1%	0.7%	3971	177	7	0	0.2%	0.1%	3849	165	6	0	0.1%	0.1%
17.00	6058	361	16	5	0.3%	1.5%	3768	150	8	0	0.2%	0.1%	3501	155	5	0	0.1%	0.1%
18.00	4542	305	12	3	0.3%	1.0%	3333	142	7	0	0.2%	0.2%	3093	128	5	0	0.2%	0.2%
19.00	2953	228	0	0	0.0%	0.1%	2552	107	0	0	0.0%	0.2%	2553	108	0	0	0.0%	0.2%
20.00	2064	154	0	0	0.0%	0.1%	1844	76	0	0	0.0%	0.2%	1928	76	0	0	0.0%	0.2%
21.00	1516	108	0	0	0.0%	0.2%	1433	63	0	0	0.0%	0.4%	1367	68	0	0	0.0%	0.4%
22.00	1223	100	0	0	0.0%	0.2%	1436	55	0	0	0.0%	0.4%	887	54	0	0	0.0%	0.5%
23.00	731	96	0	0	0.0%	0.0%	1111	60	0	0	0.0%	0.0%	508	70	0	0	0.0%	0.0%
12 hr	54761	5931	236	40	0.4%	0.7%	43944	2534	202	21	0.5%	0.8%	38476	1859	78	3	0.2%	0.1%
24 hr	72110	8146	237	41	0.3%	0.5%	57367	3827	203	22	0.4%	0.6%	49443	2672	79	3	0.2%	0.1%

**Link 8 - Swale Way north of Reams Way Junction**

**2024 Baseline + K3 Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	644	51	0	0	0.0%	0.0%	240	19	0	0	0.0%	0.0%	129	12	0	0	0.0%	0.0%
07.00	1414	85	43	1	3.0%	1.0%	349	22	42	0	12.1%	0.0%	154	12	0	0	0.0%	0.0%
08.00	1499	83	2	2	0.1%	2.1%	450	30	2	2	0.4%	5.7%	153	14	0	0	0.0%	0.0%
09.00	950	99	1	1	0.1%	0.9%	571	31	1	1	0.1%	2.7%	322	13	0	0	0.0%	0.0%
10.00	839	106	1	1	0.1%	0.8%	704	34	1	1	0.1%	2.5%	437	18	0	0	0.0%	0.0%
11.00	830	100	1	1	0.1%	0.9%	770	23	2	2	0.2%	7.4%	529	24	0	0	0.0%	0.0%
12.00	932	102	1	1	0.1%	0.8%	732	25	1	1	0.1%	3.4%	556	19	0	0	0.0%	0.0%
13.00	900	93	1	1	0.1%	0.9%	692	33	42	0	6.1%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	1	1	0.1%	0.9%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1188	86	1	1	0.1%	1.0%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	43	1	3.0%	1.1%	553	20	0	0	0.0%	0.0%	539	17	0	0	0.0%	0.0%
17.00	1299	61	2	2	0.1%	2.8%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	1	1	0.1%	1.4%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	483	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	259	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.0%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13175	1052	96	12	0.7%	1.1%	7131	304	90	6	1.3%	2.0%	5243	184	0	0	0.0%	0.0%
24 hr	16116	1362	96	12	0.6%	0.9%	8933	431	90	6	1.0%	1.4%	6617	280	0	0	0.0%	0.0%

**Link 9 - Swale Way south of Reams Way Junction**

**2024 Baseline + K3 Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	656	57	0	0	0.0%	0.0%	273	20	0	0	0.0%	0.0%	133	13	0	0	0.0%	0.0%
07.00	1416	85	43	1	3.0%	1.0%	347	27	42	0	12.2%	0.0%	188	12	0	0	0.0%	0.0%
08.00	1432	94	2	2	0.1%	1.8%	484	26	2	2	0.4%	6.5%	155	7	0	0	0.0%	0.0%
09.00	917	105	1	1	0.1%	0.8%	575	35	1	1	0.1%	2.4%	324	15	0	0	0.0%	0.0%
10.00	828	107	1	1	0.1%	0.8%	716	25	1	1	0.1%	3.4%	474	15	0	0	0.0%	0.0%
11.00	850	108	1	1	0.1%	0.8%	775	35	2	2	0.2%	4.9%	506	17	0	0	0.0%	0.0%
12.00	917	98	1	1	0.1%	0.9%	749	34	1	1	0.1%	2.5%	522	15	0	0	0.0%	0.0%
13.00	950	92	1	1	0.1%	0.9%	622	32	42	0	6.8%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	1	1	0.1%	0.8%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	1	1	0.1%	0.9%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1433	82	43	1	3.0%	1.0%	547	19	0	0	0.0%	0.0%	440	14	0	0	0.0%	0.0%
17.00	1370	64	2	2	0.1%	2.7%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	1	1	0.1%	1.4%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	477	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.0%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13210	1093	96	12	0.7%	1.1%	6976	316	90	6	1.3%	1.9%	4860	194	0	0	0.0%	0.0%
24 hr	16134	1403	96	12	0.6%	0.9%	8849	425	90	6	1.0%	1.4%	6172	278	0	0	0.0%	0.0%

**Link 10 - Swale Way south of Ridham Avenue Roundabout**

**2024 Baseline + K3 Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	565	37	0	0	0.0%	0.0%	197	12	0	0	0.0%	0.0%	99	5	0	0	0.0%	0.0%
07.00	1313	67	43	1	3.3%	1.3%	319	16	42	0	13.2%	0.0%	138	5	0	0	0.0%	0.0%
08.00	1401	71	2	2	0.1%	2.4%	421	17	2	2	0.4%	9.9%	139	4	0	0	0.0%	0.0%
09.00	869	83	1	1	0.1%	1.0%	542	18	1	1	0.2%	4.7%	312	4	0	0	0.0%	0.0%
10.00	741	88	1	1	0.1%	1.0%	681	16	1	1	0.1%	5.2%	404	8	0	0	0.0%	0.0%
11.00	740	75	1	1	0.1%	1.1%	764	11	2	2	0.2%	15.1%	518	9	0	0	0.0%	0.0%
12.00	823	81	1	1	0.1%	1.1%	717	15	1	1	0.1%	5.6%	540	11	0	0	0.0%	0.0%
13.00	833	74	1	1	0.1%	1.2%	658	16	42	0	6.4%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	77	1	1	0.1%	1.1%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	1	1	0.1%	1.1%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	43	1	3.2%	1.3%	532	13	0	0	0.0%	0.0%	521	11	0	0	0.0%	0.0%
17.00	1242	56	2	2	0.1%	3.1%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	50	1	1	0.1%	1.7%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	431	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.0%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12154	863	96	12	0.8%	1.4%	6806	170	90	6	1.3%	3.5%	5023	84	0	0	0.0%	0.0%
24 hr	14591	1055	96	12	0.7%	1.1%	8379	245	90	6	1.1%	2.4%	6218	120	0	0	0.0%	0.0%

**Link 11 - A249 North of Swale Way Junction**

**2024 Baseline + K3 Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.0%	0.0%	436	30	0	0	0.0%	0.0%
07.00	3012	191	44	0	1.5%	0.0%	1139	82	13	0	1.2%	0.0%	581	26	9	0	1.5%	0.0%
08.00	2710	235	64	0	2.4%	0.0%	1543	83	11	0	0.7%	0.0%	872	31	14	0	1.6%	0.0%
09.00	2053	238	34	0	1.6%	0.0%	1887	76	29	0	1.5%	0.1%	1368	48	21	0	1.5%	0.0%
10.00	1965	234	28	0	1.4%	0.0%	2223	85	32	0	1.4%	0.0%	2020	41	50	0	2.5%	0.0%
11.00	2067	230	28	0	1.4%	0.0%	2492	71	39	0	1.5%	0.1%	2331	38	57	0	2.4%	0.0%
12.00	2199	227	33	0	1.5%	0.0%	2640	63	48	0	1.8%	0.1%	2543	44	56	0	2.2%	0.0%
13.00	2235	222	36	0	1.6%	0.0%	2540	61	57	0	2.2%	0.0%	2417	47	52	0	2.2%	0.0%
14.00	2350	239	42	0	1.8%	0.0%	2406	57	50	0	2.1%	0.0%	2134	42	33	0	1.6%	0.0%
15.00	2574	205	52	0	2.0%	0.0%	2333	45	47	0	2.0%	0.0%	2049	45	41	0	2.0%	0.0%
16.00	3164	170	59	0	1.9%	0.0%	2290	49	37	0	1.6%	0.0%	2114	41	30	0	1.4%	0.0%
17.00	3303	126	58	0	1.8%	0.0%	2189	36	46	0	2.1%	0.0%	1964	39	27	0	1.4%	0.0%
18.00	2284	83	53	0	2.3%	0.0%	1847	36	41	0	2.2%	0.0%	1763	43	28	0	1.6%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	1	0	0.1%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	1	0	0.1%	0.0%	822	25	0	0	0.0%	0.0%	704	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.0%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.0%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29916	2398	532	0	1.8%	0.0%	25528	742	449	0	1.8%	0.0%	22156	485	419	0	1.9%	0.0%
24 hr	37860	3121	534	0	1.4%	0.0%	32342	1117	449	0	1.4%	0.0%	27697	709	419	0	1.5%	0.0%

**APPENDIX AC: 2024 BASELINE, WKN OPERATIONAL AND  
2024 CUMULATIVE DEVELOPMENT PERCENTAGE IMPACT  
TABLE**

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**Link 1 - Swale Way East of B2005 Groveshurst Roundabout**

**2024 Baseline + WKN Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	165	56	0	0	0.0%	0.0%	184	50	0	0	0.0%	0.0%	189	20	0	0	0.0%	0.0%
01.00	153	51	0	0	0.0%	0.0%	163	60	0	0	0.0%	0.0%	162	19	0	0	0.0%	0.0%
02.00	169	47	0	0	0.0%	0.0%	133	50	0	0	0.0%	0.0%	102	18	0	0	0.0%	0.0%
03.00	247	71	0	0	0.0%	0.0%	170	51	0	0	0.0%	0.0%	87	20	0	0	0.0%	0.0%
04.00	371	85	0	0	0.0%	0.0%	209	66	0	0	0.0%	0.0%	105	21	0	0	0.0%	0.0%
05.00	950	140	0	0	0.0%	0.0%	535	98	0	0	0.0%	0.0%	294	52	0	0	0.0%	0.0%
06.00	1125	194	11	0	1.0%	0.0%	527	139	11	0	2.1%	0.0%	256	80	11	0	4.3%	0.0%
07.00	1914	241	86	19	4.5%	8.1%	706	153	85	19	12.1%	12.1%	293	79	38	13	12.9%	17.0%
08.00	2229	231	20	20	0.9%	8.8%	741	134	20	20	2.7%	15.1%	315	75	13	13	4.2%	17.8%
09.00	1350	254	18	18	1.4%	7.3%	803	157	18	18	2.3%	11.7%	325	83	12	12	3.8%	14.9%
10.00	1232	275	18	18	1.5%	6.7%	911	158	18	18	2.0%	11.7%	344	91	12	12	3.6%	13.5%
11.00	1258	262	18	18	1.5%	7.0%	940	153	19	19	2.1%	12.6%	564	89	12	12	2.2%	13.9%
12.00	1377	247	18	18	1.3%	7.5%	962	130	18	18	1.9%	14.2%	864	73	12	12	1.4%	17.0%
13.00	1494	270	14	14	1.0%	5.3%	924	126	50	8	5.4%	6.5%	532	87	8	8	1.5%	9.4%
14.00	1475	262	14	14	1.0%	5.5%	904	123	8	8	0.9%	6.7%	545	81	8	8	1.5%	10.0%
15.00	1596	258	19	19	1.2%	7.5%	916	129	13	13	1.5%	10.4%	546	84	13	13	2.4%	16.0%
16.00	1725	215	73	19	4.2%	9.1%	823	114	24	13	3.0%	11.7%	665	71	24	13	3.7%	18.9%
17.00	1837	179	26	15	1.4%	8.4%	839	99	19	8	2.3%	8.3%	695	68	19	8	2.8%	12.1%
18.00	1214	141	17	14	1.4%	10.1%	695	77	11	8	1.5%	10.7%	456	46	11	8	2.3%	17.9%
19.00	734	102	23	12	3.2%	12.2%	555	73	23	12	4.2%	16.9%	521	56	23	12	4.5%	22.0%
20.00	549	98	12	12	2.3%	12.6%	406	74	12	12	3.0%	16.8%	369	49	12	12	3.4%	25.3%
21.00	394	73	13	13	3.4%	18.3%	322	54	13	13	4.1%	24.7%	231	38	13	13	5.8%	34.9%
22.00	309	54	13	13	4.3%	24.7%	285	30	13	13	4.7%	44.4%	314	15	13	13	4.3%	89.3%
23.00	203	51	0	0	0.0%	0.0%	209	34	0	0	0.0%	0.0%	202	15	0	0	0.0%	0.0%
12 hr	18700	2835	344	210	1.8%	7.4%	10164	1552	306	173	3.0%	11.1%	6144	925	185	136	3.0%	14.7%
24 hr	24069	3857	417	262	1.7%	6.8%	13862	2333	380	224	2.7%	9.6%	8974	1328	258	187	2.9%	14.1%

Link 2 - Barge Way North of Swale Roundabout																		
2024 Baseline + WKN Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact																		
Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	133	40	0	0	0.0%	0.0%	138	36	0	0	0.0%	0.0%	105	31	0	0	0.0%	0.0%
01.00	136	37	0	0	0.0%	0.0%	112	31	0	0	0.0%	0.0%	92	30	0	0	0.0%	0.0%
02.00	174	38	0	0	0.0%	0.0%	135	40	0	0	0.0%	0.0%	93	27	0	0	0.0%	0.0%
03.00	228	56	0	0	0.0%	0.0%	171	48	0	0	0.0%	0.0%	86	30	0	0	0.0%	0.0%
04.00	313	68	0	0	0.0%	0.0%	216	62	0	0	0.0%	0.0%	109	33	0	0	0.0%	0.0%
05.00	550	104	0	0	0.0%	0.0%	351	90	0	0	0.0%	0.0%	199	60	0	0	0.0%	0.0%
06.00	539	143	11	0	2.0%	0.0%	318	128	11	0	3.5%	0.0%	177	82	11	0	6.2%	0.0%
07.00	544	172	43	19	8.0%	10.9%	330	138	43	19	13.1%	13.6%	178	95	38	13	21.4%	14.1%
08.00	551	170	19	19	3.4%	11.0%	314	141	19	19	6.0%	13.3%	190	84	13	13	7.0%	15.9%
09.00	459	188	18	18	3.9%	9.4%	301	147	18	18	5.9%	12.1%	172	95	12	12	7.2%	13.0%
10.00	470	194	18	18	3.8%	9.1%	312	136	18	18	5.7%	13.0%	176	99	12	12	7.0%	12.5%
11.00	427	193	18	18	4.2%	9.2%	283	142	18	18	6.3%	12.5%	201	112	12	12	6.2%	11.0%
12.00	441	177	18	18	4.0%	10.0%	262	104	18	18	6.8%	17.0%	236	83	12	12	5.2%	15.0%
13.00	540	202	14	14	2.5%	6.7%	326	113	8	8	2.5%	7.3%	236	103	8	8	3.5%	8.0%
14.00	535	211	14	14	2.5%	6.4%	296	125	8	8	2.8%	6.6%	208	101	8	8	3.9%	8.1%
15.00	532	209	19	19	3.5%	9.0%	311	134	13	13	4.3%	10.0%	200	104	13	13	6.7%	12.9%
16.00	549	174	30	19	5.4%	10.8%	263	94	24	13	9.3%	14.3%	238	100	24	13	10.2%	13.4%
17.00	534	138	25	14	4.6%	9.8%	230	87	19	8	8.3%	9.4%	211	78	19	8	9.1%	10.6%
18.00	381	107	16	14	4.2%	12.7%	192	58	11	8	5.6%	14.2%	148	52	11	8	7.2%	15.9%
19.00	253	90	23	12	9.2%	13.7%	139	74	23	12	16.8%	16.7%	135	59	23	12	17.3%	20.9%
20.00	188	69	12	12	6.6%	17.9%	111	62	12	12	11.2%	20.0%	104	55	12	12	11.8%	22.6%
21.00	154	52	13	13	8.7%	25.9%	98	45	13	13	13.6%	29.6%	83	39	13	13	16.1%	34.1%
22.00	118	37	13	13	11.4%	36.1%	76	28	13	13	17.6%	47.5%	82	20	13	13	16.3%	66.8%
23.00	148	46	0	0	0.0%	0.0%	82	29	0	0	0.0%	0.0%	79	25	0	0	0.0%	0.0%
12 hr	5964	2134	249	200	4.2%	9.4%	3420	1417	217	168	6.3%	11.8%	2394	1103	185	136	7.7%	12.3%
24 hr	8898	2914	323	252	3.6%	8.6%	5367	2091	291	219	5.4%	10.5%	3737	1595	258	187	6.9%	11.7%



**Link 3 - Barge Way East of Fleet End Roundabout**

**2024 Baseline + WKN Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	45	23	0	0	0.0%	0.0%	95	19	0	0	0.0%	0.0%	19	15	0	0	0.0%	0.0%
01.00	43	22	0	0	0.0%	0.0%	39	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
02.00	62	24	0	0	0.0%	0.0%	40	30	0	0	0.0%	0.0%	18	15	0	0	0.0%	0.0%
03.00	75	26	0	0	0.0%	0.0%	24	17	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
04.00	116	32	0	0	0.0%	0.0%	43	25	0	0	0.0%	0.0%	25	15	0	0	0.0%	0.0%
05.00	231	41	0	0	0.0%	0.0%	102	22	0	0	0.0%	0.0%	60	16	0	0	0.0%	0.0%
06.00	284	59	11	0	3.9%	0.0%	119	44	11	0	9.3%	0.0%	64	18	11	0	17.3%	0.0%
07.00	330	90	43	19	13.1%	20.7%	154	60	43	19	28.1%	31.0%	86	31	38	13	44.0%	43.6%
08.00	329	98	19	19	5.7%	19.0%	162	64	19	19	11.6%	29.1%	109	28	13	13	12.2%	48.4%
09.00	249	101	18	18	7.1%	17.6%	143	64	18	18	12.4%	27.5%	76	28	12	12	16.4%	44.8%
10.00	238	103	18	18	7.5%	17.1%	131	59	18	18	13.5%	29.9%	76	28	12	12	16.2%	44.8%
11.00	213	100	18	18	8.3%	17.7%	117	45	18	18	15.2%	39.2%	70	30	12	12	17.8%	41.8%
12.00	247	101	18	18	7.2%	17.5%	109	40	18	18	16.3%	44.2%	77	29	12	12	16.1%	43.2%
13.00	286	103	14	14	4.7%	13.2%	133	32	8	8	6.2%	25.9%	113	28	8	8	7.2%	29.7%
14.00	263	113	14	14	5.1%	12.0%	110	31	8	8	7.4%	26.7%	93	28	8	8	8.8%	29.7%
15.00	236	110	19	19	7.9%	17.1%	97	35	13	13	13.7%	38.6%	79	29	13	13	16.9%	46.7%
16.00	268	89	30	19	11.1%	21.2%	104	32	24	13	23.4%	42.2%	98	31	24	13	24.8%	43.6%
17.00	308	68	25	14	8.0%	19.9%	115	29	19	8	16.7%	28.6%	124	28	19	8	15.4%	29.7%
18.00	159	42	16	14	10.1%	31.9%	67	17	11	8	16.0%	48.2%	64	16	11	8	16.8%	51.2%
19.00	93	33	23	12	25.1%	37.1%	52	15	23	12	45.3%	82.7%	55	15	23	12	42.8%	82.7%
20.00	82	32	12	12	15.0%	39.2%	34	17	12	12	36.0%	72.8%	33	15	12	12	37.1%	82.7%
21.00	77	24	13	13	17.4%	55.1%	36	15	13	13	36.7%	89.3%	35	17	13	13	37.8%	78.7%
22.00	50	26	13	13	26.8%	51.6%	21	15	13	13	63.0%	89.3%	28	16	13	13	47.2%	83.7%
23.00	45	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%	22	16	0	0	0.0%	0.0%
12 hr	3126	1119	249	200	8.0%	17.9%	1443	508	217	168	15.0%	33.0%	1066	330	185	136	17.3%	41.2%
24 hr	4329	1484	323	252	7.5%	17.0%	2064	765	291	219	14.1%	28.7%	1458	517	258	187	17.7%	36.2%

**Link 4 - A249 South of Swale Way Junction**

**2024 Baseline + WKN Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	240	67	0	0	0.0%	0.0%	398	68	0	0	0.0%	0.0%	458	45	0	0	0.0%	0.0%
01.00	174	58	0	0	0.0%	0.0%	267	63	0	0	0.0%	0.0%	296	38	0	0	0.0%	0.0%
02.00	172	65	0	0	0.0%	0.0%	227	73	0	0	0.0%	0.0%	209	42	0	0	0.0%	0.0%
03.00	242	83	0	0	0.0%	0.0%	228	73	0	0	0.0%	0.0%	176	44	0	0	0.0%	0.0%
04.00	553	144	0	0	0.0%	0.0%	310	81	0	0	0.0%	0.0%	201	45	0	0	0.0%	0.0%
05.00	1343	244	0	0	0.0%	0.0%	700	145	0	0	0.0%	0.0%	414	80	0	0	0.0%	0.0%
06.00	2221	308	11	0	0.5%	0.0%	1050	186	11	0	1.0%	0.0%	634	114	11	0	1.7%	0.0%
07.00	3153	363	399	24	12.7%	6.7%	1443	217	334	18	23.1%	8.5%	822	124	52	13	6.4%	10.8%
08.00	2910	368	152	30	5.2%	8.3%	1839	229	51	30	2.8%	13.3%	1136	124	41	13	3.6%	10.8%
09.00	2217	381	85	23	3.9%	6.1%	2072	247	78	23	3.7%	9.5%	1645	165	52	12	3.1%	7.5%
10.00	2126	403	75	23	3.5%	5.8%	2367	236	83	23	3.5%	9.9%	2107	181	106	12	5.0%	6.8%
11.00	2160	393	76	23	3.5%	6.0%	2511	231	95	24	3.8%	10.5%	2330	180	118	12	5.1%	6.9%
12.00	2321	387	84	23	3.6%	6.1%	2703	207	117	29	4.3%	13.8%	2190	152	114	12	5.2%	8.1%
13.00	2358	404	84	19	3.6%	4.8%	2640	206	378	8	14.3%	4.0%	2154	161	102	8	4.7%	5.1%
14.00	2600	405	96	19	3.7%	4.7%	2422	192	99	8	4.1%	4.3%	2173	162	69	8	3.2%	5.0%
15.00	2884	400	119	24	4.1%	6.1%	2372	195	98	13	4.1%	6.9%	2142	174	87	13	4.1%	7.7%
16.00	3409	336	409	24	12.0%	7.3%	2313	169	89	13	3.8%	7.9%	2252	167	78	13	3.5%	8.0%
17.00	3694	296	139	25	3.8%	8.5%	2360	159	102	8	4.3%	5.1%	1973	154	67	8	3.4%	5.3%
18.00	2774	255	117	19	4.2%	7.5%	2038	134	84	8	4.1%	6.1%	1863	129	61	8	3.3%	6.4%
19.00	1851	189	23	12	1.3%	6.5%	1601	123	23	12	1.4%	10.1%	1548	115	23	12	1.5%	10.7%
20.00	1277	142	14	12	1.1%	8.7%	1164	91	12	12	1.1%	13.5%	1279	100	12	12	1.0%	12.4%
21.00	956	109	15	13	1.6%	12.3%	973	71	13	13	1.4%	18.8%	935	83	13	13	1.4%	16.0%
22.00	735	74	13	13	1.8%	18.1%	861	49	13	13	1.6%	27.3%	554	45	13	13	2.4%	29.8%
23.00	440	63	0	0	0.0%	0.0%	664	50	0	0	0.0%	0.0%	336	47	0	0	0.0%	0.0%
12 hr	32605	4392	1834	280	5.6%	6.4%	27081	2422	1608	208	5.9%	8.6%	22787	1873	948	136	4.2%	7.2%
24 hr	42808	5937	1910	332	4.5%	5.6%	35525	3494	1681	259	4.7%	7.4%	29826	2671	1020	187	3.4%	7.0%

Link 5 - A249 between the A2 and M2

2024 Baseline + WKN Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	338	91	0	0	0.0%	0.0%	564	93	0	0	0.0%	0.0%	649	60	0	0	0.0%	0.0%
01.00	243	79	0	0	0.0%	0.0%	377	85	0	0	0.0%	0.0%	419	50	0	0	0.0%	0.0%
02.00	241	87	0	0	0.0%	0.0%	320	99	0	0	0.0%	0.0%	295	55	0	0	0.0%	0.0%
03.00	339	113	0	0	0.0%	0.0%	322	100	0	0	0.0%	0.0%	247	58	0	0	0.0%	0.0%
04.00	782	199	0	0	0.0%	0.0%	438	111	0	0	0.0%	0.0%	282	59	0	0	0.0%	0.0%
05.00	1878	328	0	0	0.0%	0.0%	976	190	0	0	0.0%	0.0%	567	97	0	0	0.0%	0.0%
06.00	3114	406	10	0	0.3%	0.0%	1459	237	10	0	0.7%	0.0%	863	134	10	0	1.2%	0.0%
07.00	4398	463	553	26	12.6%	5.6%	1997	268	401	19	20.1%	7.0%	1130	146	72	13	6.4%	9.1%
08.00	3983	469	326	34	8.2%	7.1%	2559	286	84	34	3.3%	11.7%	1572	148	80	13	5.1%	9.0%
09.00	3071	485	173	25	5.6%	5.2%	2923	308	155	25	5.3%	8.2%	2319	202	107	12	4.6%	6.1%
10.00	2936	512	148	25	5.0%	4.9%	3343	290	167	25	5.0%	8.7%	3005	223	238	12	7.9%	5.5%
11.00	2990	501	150	25	5.0%	5.0%	3561	283	196	26	5.5%	9.2%	3336	222	265	12	8.0%	5.6%
12.00	3219	500	169	25	5.2%	5.0%	3852	258	242	32	6.3%	12.3%	3142	192	252	12	8.0%	6.4%
13.00	3262	517	176	21	5.4%	4.0%	3740	251	205	8	5.5%	3.3%	3064	196	229	8	7.5%	4.2%
14.00	3602	523	203	21	5.6%	4.0%	3444	235	224	8	6.5%	3.5%	3082	202	152	8	4.9%	4.1%
15.00	4030	511	249	26	6.2%	5.1%	3367	235	214	13	6.3%	5.7%	3045	215	187	13	6.2%	6.2%
16.00	4772	426	588	26	12.3%	6.1%	3278	204	175	13	5.3%	6.6%	3195	211	153	13	4.8%	6.3%
17.00	5149	371	281	28	5.5%	7.6%	3351	191	216	8	6.4%	4.3%	2791	193	133	8	4.8%	4.2%
18.00	3911	323	247	21	6.3%	6.5%	2909	164	184	8	6.3%	5.0%	2658	166	131	8	4.9%	4.9%
19.00	2596	244	23	12	0.9%	5.1%	2253	153	22	12	1.0%	8.1%	2177	143	22	12	1.0%	8.7%
20.00	1790	180	17	12	0.9%	6.9%	1639	112	12	12	0.8%	11.0%	1803	123	12	12	0.7%	10.0%
21.00	1337	138	17	13	1.3%	9.7%	1370	87	13	13	1.0%	15.3%	1315	105	13	13	1.0%	12.8%
22.00	1030	100	13	13	1.3%	13.4%	1225	65	13	13	1.1%	20.4%	786	60	13	13	1.7%	22.5%
23.00	621	86	0	0	0.0%	0.0%	945	66	0	0	0.0%	0.0%	475	62	0	0	0.0%	0.0%
12 hr	45324	5600	3263	304	7.2%	5.4%	38324	2974	2465	220	6.4%	7.4%	32339	2316	2000	136	6.2%	5.9%
24 hr	59632	7651	3343	355	5.6%	4.6%	50213	4373	2536	271	5.1%	6.2%	42217	3321	2071	187	4.9%	5.6%

Link 6 - M2 West

2024 Baseline + WKN Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	428	111	0	0	0.0%	0.0%	711	123	0	0	0.0%	0.0%	869	69	0	0	0.0%	0.0%
01.00	326	103	0	0	0.0%	0.0%	472	106	0	0	0.0%	0.0%	533	66	0	0	0.0%	0.0%
02.00	341	117	0	0	0.0%	0.0%	398	99	0	0	0.0%	0.0%	355	51	0	0	0.0%	0.0%
03.00	467	160	0	0	0.0%	0.0%	419	120	0	0	0.0%	0.0%	315	71	0	0	0.0%	0.0%
04.00	1075	267	0	0	0.0%	0.0%	566	151	0	0	0.0%	0.0%	338	62	0	0	0.0%	0.0%
05.00	2830	449	0	0	0.0%	0.0%	1199	213	0	0	0.0%	0.0%	687	98	0	0	0.0%	0.0%
06.00	4268	527	3	0	0.1%	0.0%	1804	269	3	0	0.2%	0.0%	1031	126	3	0	0.3%	0.0%
07.00	5707	549	162	12	2.8%	2.3%	2526	312	124	9	4.9%	2.9%	1411	140	24	8	1.7%	5.9%
08.00	5278	602	86	16	1.6%	2.6%	3240	318	28	16	0.9%	4.9%	1885	144	24	8	1.3%	5.7%
09.00	4374	627	47	12	1.1%	1.9%	3631	316	43	12	1.2%	3.7%	2784	192	30	8	1.1%	4.0%
10.00	4035	614	41	12	1.0%	1.9%	4151	308	46	12	1.1%	3.8%	3764	221	62	8	1.6%	3.5%
11.00	4028	598	42	12	1.0%	2.0%	4601	289	53	12	1.1%	4.2%	4302	249	68	8	1.6%	3.1%
12.00	4378	638	46	12	1.1%	1.8%	4825	266	65	15	1.3%	5.5%	4635	223	65	8	1.4%	3.4%
13.00	4543	660	46	9	1.0%	1.4%	4745	263	157	5	3.3%	1.9%	4402	234	58	5	1.3%	2.2%
14.00	4834	659	53	9	1.1%	1.4%	4370	257	57	5	1.3%	2.0%	4011	232	39	5	1.0%	2.2%
15.00	5340	641	66	12	1.2%	1.9%	4196	240	56	8	1.3%	3.4%	3831	222	50	8	1.3%	3.7%
16.00	6281	519	169	12	2.7%	2.4%	4375	224	48	8	1.1%	3.7%	4240	211	42	8	1.0%	3.9%
17.00	6679	425	73	12	1.1%	2.9%	4156	192	55	5	1.3%	2.6%	3860	198	36	5	0.9%	2.5%
18.00	4988	351	63	9	1.3%	2.6%	3665	172	47	5	1.3%	2.9%	3400	157	35	5	1.0%	3.2%
19.00	3247	272	11	8	0.3%	2.8%	2806	140	11	8	0.4%	5.5%	2808	141	11	8	0.4%	5.4%
20.00	2271	187	8	8	0.3%	4.1%	2029	102	8	8	0.4%	7.5%	2121	103	8	8	0.4%	7.4%
21.00	1668	132	8	8	0.5%	6.3%	1577	83	8	8	0.5%	10.0%	1505	88	8	8	0.5%	9.4%
22.00	1339	112	8	8	0.6%	7.4%	1568	63	8	8	0.5%	13.0%	970	62	8	8	0.9%	13.4%
23.00	800	108	0	0	0.0%	0.0%	1213	69	0	0	0.0%	0.0%	556	79	0	0	0.0%	0.0%
12 hr	60465	6882	894	140	1.5%	2.0%	48483	3159	779	112	1.6%	3.5%	42524	2424	533	84	1.3%	3.5%
24 hr	79526	9426	932	171	1.2%	1.8%	63245	4696	817	143	1.3%	3.1%	54612	3438	571	115	1.0%	3.4%

Link 7 - M2 East

2024 Baseline + WKN Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.0%	0.0%	650	110	0	0	0.0%	0.0%	795	61	0	0	0.0%	0.0%
01.00	297	92	0	0	0.0%	0.0%	430	94	0	0	0.0%	0.0%	487	58	0	0	0.0%	0.0%
02.00	311	105	0	0	0.0%	0.0%	363	88	0	0	0.0%	0.0%	323	44	0	0	0.0%	0.0%
03.00	426	144	0	0	0.0%	0.0%	382	108	0	0	0.0%	0.0%	287	63	0	0	0.0%	0.0%
04.00	984	242	0	0	0.0%	0.0%	517	136	0	0	0.0%	0.0%	308	54	0	0	0.0%	0.0%
05.00	2575	395	0	0	0.0%	0.0%	1082	178	0	0	0.0%	0.0%	611	72	0	0	0.0%	0.0%
06.00	3882	453	1	0	0.0%	0.0%	1623	217	1	0	0.1%	0.0%	913	86	1	0	0.2%	0.0%
07.00	5181	471	66	4	1.3%	0.9%	2281	255	57	2	2.5%	0.6%	1256	98	6	1	0.5%	0.9%
08.00	4760	521	19	7	0.4%	1.3%	2932	262	9	7	0.3%	2.5%	1687	103	4	1	0.2%	0.9%
09.00	3956	539	10	4	0.3%	0.7%	3286	256	9	4	0.3%	1.6%	2510	142	5	1	0.2%	0.6%
10.00	3642	525	9	4	0.2%	0.8%	3759	246	10	4	0.3%	1.6%	3398	165	10	1	0.3%	0.5%
11.00	3638	512	9	4	0.3%	0.8%	4173	229	11	4	0.3%	1.9%	3893	192	11	1	0.3%	0.4%
12.00	3964	558	10	4	0.3%	0.7%	4385	219	15	6	0.3%	2.8%	4208	179	11	1	0.3%	0.5%
13.00	4105	569	10	4	0.2%	0.7%	4299	207	61	1	1.4%	0.3%	3983	180	10	1	0.2%	0.3%
14.00	4376	573	11	4	0.3%	0.6%	3960	206	10	1	0.2%	0.3%	3635	182	7	1	0.2%	0.3%
15.00	4836	552	13	4	0.3%	0.7%	3797	185	9	1	0.2%	0.5%	3464	169	8	1	0.2%	0.5%
16.00	5703	446	66	4	1.2%	0.9%	3971	177	9	1	0.2%	0.5%	3849	165	8	1	0.2%	0.5%
17.00	6058	361	18	6	0.3%	1.7%	3768	150	10	1	0.3%	0.4%	3501	155	7	1	0.2%	0.4%
18.00	4542	305	13	4	0.3%	1.2%	3333	142	8	1	0.2%	0.4%	3093	128	6	1	0.2%	0.4%
19.00	2953	228	2	1	0.1%	0.4%	2552	107	2	1	0.1%	0.8%	2553	108	2	1	0.1%	0.8%
20.00	2064	154	1	1	0.0%	0.5%	1844	76	1	1	0.0%	1.1%	1928	76	1	1	0.0%	1.1%
21.00	1516	108	1	1	0.1%	0.8%	1433	63	1	1	0.1%	1.4%	1367	68	1	1	0.1%	1.3%
22.00	1223	100	1	1	0.1%	0.9%	1436	55	1	1	0.1%	1.6%	887	54	1	1	0.1%	1.7%
23.00	731	96	0	0	0.0%	0.0%	1111	60	0	0	0.0%	0.0%	508	70	0	0	0.0%	0.0%
12 hr	54761	5931	255	52	0.5%	0.9%	43944	2534	218	31	0.5%	1.2%	38476	1859	92	9	0.2%	0.5%
24 hr	72110	8146	262	56	0.4%	0.7%	57367	3827	225	34	0.4%	0.9%	49443	2672	98	13	0.2%	0.5%

**Link 8 - Swale Way north of Reams Way Junction**

**2024 Baseline + WKN Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	644	51	0	0	0.0%	0.0%	240	19	0	0	0.0%	0.0%	129	12	0	0	0.0%	0.0%
07.00	1414	85	43	1	3.1%	1.0%	349	22	42	0	12.1%	0.0%	154	12	0	0	0.1%	0.0%
08.00	1499	83	2	2	0.1%	2.1%	450	30	2	2	0.4%	5.7%	153	14	0	0	0.0%	0.0%
09.00	950	99	1	1	0.1%	0.9%	571	31	1	1	0.1%	2.7%	322	13	0	0	0.0%	0.0%
10.00	839	106	2	2	0.2%	1.7%	704	34	2	2	0.3%	5.4%	437	18	0	0	0.0%	0.0%
11.00	830	100	2	2	0.2%	1.8%	770	23	3	3	0.4%	11.7%	529	24	0	0	0.0%	0.0%
12.00	932	102	1	1	0.1%	0.8%	732	25	1	1	0.1%	3.4%	556	19	0	0	0.0%	0.0%
13.00	900	93	1	1	0.1%	0.9%	692	33	42	0	6.1%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	1	1	0.1%	0.9%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1188	86	1	1	0.1%	1.0%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	43	1	3.0%	1.1%	553	20	0	0	0.0%	0.0%	539	17	0	0	0.0%	0.0%
17.00	1299	61	2	2	0.1%	2.8%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	1	1	0.1%	1.4%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	483	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	259	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.0%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13175	1052	99	14	0.7%	1.3%	7131	304	93	8	1.3%	2.6%	5243	184	0	0	0.0%	0.0%
24 hr	16116	1362	99	14	0.6%	1.0%	8933	431	93	8	1.0%	1.9%	6617	280	0	0	0.0%	0.0%

**Link 9 - Swale Way south of Reams Way Junction**

**2024 Baseline + WKN Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	656	57	0	0	0.0%	0.0%	273	20	0	0	0.0%	0.0%	133	13	0	0	0.0%	0.0%
07.00	1416	85	43	1	3.0%	1.0%	347	27	42	0	12.2%	0.0%	188	12	0	0	0.1%	0.0%
08.00	1432	94	2	2	0.1%	1.8%	484	26	2	2	0.4%	6.5%	155	7	0	0	0.0%	0.0%
09.00	917	105	1	1	0.1%	0.8%	575	35	1	1	0.1%	2.4%	324	15	0	0	0.0%	0.0%
10.00	828	107	2	2	0.2%	1.7%	716	25	2	2	0.3%	7.4%	474	15	0	0	0.0%	0.0%
11.00	850	108	2	2	0.2%	1.7%	775	35	3	3	0.3%	7.7%	506	17	0	0	0.0%	0.0%
12.00	917	98	1	1	0.1%	0.9%	749	34	1	1	0.1%	2.5%	522	15	0	0	0.0%	0.0%
13.00	950	92	1	1	0.1%	0.9%	622	32	42	0	6.8%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	1	1	0.1%	0.8%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	1	1	0.1%	0.9%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1433	82	43	1	3.0%	1.0%	547	19	0	0	0.0%	0.0%	440	14	0	0	0.0%	0.0%
17.00	1370	64	2	2	0.1%	2.7%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	1	1	0.1%	1.4%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	477	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.0%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13210	1093	99	14	0.7%	1.3%	6976	316	93	8	1.3%	2.5%	4860	194	0	0	0.0%	0.0%
24 hr	16134	1403	99	14	0.6%	1.0%	8849	425	93	8	1.0%	1.9%	6172	278	0	0	0.0%	0.0%

**Link 10 - Swale Way south of Ridham Avenue Roundabout**

**2024 Baseline + WKN Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	565	37	0	0	0.0%	0.0%	197	12	0	0	0.0%	0.0%	99	5	0	0	0.1%	0.0%
07.00	1313	67	43	1	3.3%	1.3%	319	16	42	0	13.3%	0.0%	138	5	0	0	0.1%	0.0%
08.00	1401	71	2	2	0.1%	2.4%	421	17	2	2	0.4%	9.9%	139	4	0	0	0.0%	0.0%
09.00	869	83	1	1	0.1%	1.0%	542	18	1	1	0.2%	4.7%	312	4	0	0	0.0%	0.0%
10.00	741	88	2	2	0.3%	2.1%	681	16	2	2	0.3%	11.4%	404	8	0	0	0.0%	0.0%
11.00	740	75	2	2	0.3%	2.5%	764	11	3	3	0.4%	24.0%	518	9	0	0	0.0%	0.0%
12.00	823	81	1	1	0.1%	1.1%	717	15	1	1	0.1%	5.6%	540	11	0	0	0.0%	0.0%
13.00	833	74	1	1	0.1%	1.2%	658	16	42	0	6.4%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	77	1	1	0.1%	1.1%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	1	1	0.1%	1.1%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	43	1	3.2%	1.3%	532	13	0	0	0.0%	0.0%	521	11	0	0	0.0%	0.0%
17.00	1242	56	2	2	0.1%	3.1%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	50	1	1	0.1%	1.7%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	431	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.0%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12154	863	99	14	0.8%	1.6%	6806	170	93	8	1.4%	4.7%	5023	84	0	0	0.0%	0.0%
24 hr	14591	1055	99	14	0.7%	1.3%	8379	245	93	8	1.1%	3.3%	6218	120	0	0	0.0%	0.0%



**Link 11 - A249 North of Swale Way Junction**

**2024 Baseline + WKN Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact		2024 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.0%	0.0%	436	30	0	0	0.1%	0.0%
07.00	3012	191	45	0	1.5%	0.1%	1139	82	14	0	1.2%	0.2%	581	26	9	0	1.6%	0.0%
08.00	2710	235	65	0	2.4%	0.1%	1543	83	11	0	0.7%	0.2%	872	31	14	0	1.6%	0.0%
09.00	2053	238	34	0	1.6%	0.1%	1887	76	29	0	1.5%	0.2%	1368	48	21	0	1.5%	0.0%
10.00	1965	234	28	0	1.4%	0.1%	2223	85	32	0	1.4%	0.2%	2020	41	50	0	2.5%	0.0%
11.00	2067	230	29	0	1.4%	0.1%	2492	71	39	0	1.6%	0.2%	2331	38	57	0	2.4%	0.0%
12.00	2199	227	34	0	1.5%	0.1%	2640	63	49	0	1.8%	0.2%	2543	44	56	0	2.2%	0.0%
13.00	2235	222	36	0	1.6%	0.1%	2540	61	57	0	2.2%	0.0%	2417	47	52	0	2.2%	0.0%
14.00	2350	239	42	0	1.8%	0.1%	2406	57	50	0	2.1%	0.0%	2134	42	33	0	1.6%	0.0%
15.00	2574	205	52	0	2.0%	0.1%	2333	45	47	0	2.0%	0.0%	2049	45	41	0	2.0%	0.0%
16.00	3164	170	59	0	1.9%	0.1%	2290	49	37	0	1.6%	0.0%	2114	41	30	0	1.4%	0.0%
17.00	3303	126	59	0	1.8%	0.1%	2189	36	46	0	2.1%	0.0%	1964	39	27	0	1.4%	0.0%
18.00	2284	83	53	0	2.3%	0.2%	1847	36	41	0	2.2%	0.0%	1763	43	28	0	1.6%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	1	0	0.1%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	1	0	0.1%	0.0%	822	25	0	0	0.0%	0.0%	704	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.0%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.0%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29916	2398	535	2	1.8%	0.1%	25528	742	451	1	1.8%	0.1%	22156	485	421	0	1.9%	0.0%
24 hr	37860	3121	537	2	1.4%	0.1%	32342	1117	452	1	1.4%	0.1%	27697	709	421	0	1.5%	0.0%

**APPENDIX AD: 2024 BASELINE, WKN OPERATIONAL, K3 OPERATIONAL AND 2024 CUMULATIVE DEVELOPMENT PERCENTAGE IMPACT TABLE**

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Link 1 - Swale Way East of B2005 Groveshurst Roundabout

2024 Baseline + K3 Operational + WKN Operational + 2024 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	160	51	5	5	3.1%	9.7%	179	45	5	5	2.8%	10.9%	184	15	5	5	2.7%	32.9%
01.00	148	46	5	5	3.3%	10.8%	158	56	5	5	3.1%	8.9%	157	14	5	5	3.2%	35.3%
02.00	164	42	5	5	3.0%	11.8%	128	45	5	5	3.9%	10.9%	97	13	5	5	5.1%	38.1%
03.00	242	66	5	5	2.1%	7.5%	165	46	5	5	3.0%	10.7%	82	15	5	5	6.0%	32.9%
04.00	366	80	5	5	1.4%	6.2%	204	61	5	5	2.4%	8.2%	100	16	5	5	5.0%	30.9%
05.00	945	135	5	5	0.5%	3.7%	530	93	5	5	0.9%	5.3%	289	47	5	5	1.7%	10.6%
06.00	1116	189	20	5	1.8%	2.6%	517	134	20	5	3.9%	3.7%	247	75	20	5	8.2%	6.6%
07.00	1885	216	120	49	6.4%	22.8%	677	128	119	48	17.6%	37.7%	271	61	63	35	23.4%	56.7%
08.00	2193	206	62	50	2.8%	24.3%	705	110	62	50	8.8%	45.8%	286	57	46	35	16.3%	60.3%
09.00	1326	229	47	47	3.6%	20.6%	778	133	47	47	6.1%	35.7%	307	65	33	33	10.6%	50.0%
10.00	1207	251	47	47	3.9%	18.9%	886	133	47	47	5.3%	35.5%	326	74	33	33	10.0%	44.2%
11.00	1233	237	47	47	3.8%	20.0%	915	129	48	48	5.3%	37.5%	547	71	33	33	6.0%	45.7%
12.00	1352	222	47	47	3.5%	21.3%	937	105	47	47	5.0%	45.0%	847	55	33	33	3.9%	59.2%
13.00	1465	245	48	44	3.3%	17.9%	903	108	75	29	8.4%	26.9%	510	69	33	29	6.5%	42.1%
14.00	1446	237	48	44	3.3%	18.5%	882	105	33	29	3.8%	27.7%	523	64	33	29	6.4%	45.5%
15.00	1571	234	49	49	3.1%	21.1%	898	111	35	35	3.9%	31.1%	529	66	35	35	6.5%	52.4%
16.00	1700	190	102	49	6.0%	25.9%	805	96	46	35	5.7%	36.0%	647	53	46	35	7.0%	65.2%
17.00	1800	155	67	45	3.7%	28.9%	810	81	52	29	6.4%	35.9%	666	50	52	29	7.8%	58.2%
18.00	1202	129	34	31	2.8%	24.1%	690	72	19	16	2.8%	23.0%	451	41	19	16	4.2%	40.4%
19.00	729	97	31	20	4.2%	20.7%	550	68	31	20	5.6%	29.3%	516	51	31	20	6.0%	39.0%
20.00	544	93	20	20	3.7%	21.4%	401	69	20	20	5.0%	29.0%	364	44	20	20	5.5%	45.6%
21.00	384	68	26	22	6.8%	32.3%	313	49	26	22	8.4%	44.7%	221	33	26	22	11.8%	65.9%
22.00	300	49	26	22	8.7%	44.7%	276	25	26	22	9.5%	87.3%	305	10	26	22	8.6%	219.8%
23.00	198	46	5	5	2.5%	10.8%	204	29	5	5	2.4%	17.0%	197	10	5	5	2.5%	49.6%
12 hr	18381	2550	718	551	3.9%	21.6%	9886	1311	631	462	6.4%	35.2%	5909	727	458	373	7.7%	51.3%
24 hr	23678	3513	876	674	3.7%	19.2%	13512	2032	789	585	5.8%	28.8%	8667	1070	616	496	7.1%	46.4%

Link 2 - Barge Way North of Swale Roundabout

2024 Baseline + K3 Operational + WKN Operational + 2024 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	128	35	5	5	3.9%	14.1%	133	31	5	5	3.7%	15.9%	100	26	5	5	5.0%	18.9%
01.00	131	32	5	5	3.8%	15.6%	107	26	5	5	4.6%	18.9%	87	25	5	5	5.7%	19.7%
02.00	169	33	5	5	2.9%	15.0%	130	35	5	5	3.8%	14.1%	88	22	5	5	5.6%	22.4%
03.00	223	51	5	5	2.2%	9.6%	166	43	5	5	3.0%	11.4%	81	25	5	5	6.1%	19.7%
04.00	308	63	5	5	1.6%	7.9%	211	57	5	5	2.3%	8.8%	104	28	5	5	4.8%	17.6%
05.00	545	99	5	5	0.9%	5.0%	346	85	5	5	1.4%	5.8%	194	55	5	5	2.6%	9.1%
06.00	530	138	20	5	3.8%	3.6%	308	123	20	5	6.6%	4.0%	168	77	20	5	12.1%	6.4%
07.00	515	147	77	49	15.0%	33.3%	301	112	77	49	25.6%	43.5%	156	77	63	35	40.7%	44.9%
08.00	515	145	60	49	11.7%	33.9%	278	116	60	49	21.7%	42.2%	160	66	46	35	29.0%	52.2%
09.00	434	163	46	47	10.7%	28.9%	276	122	46	47	16.8%	38.6%	155	77	33	33	21.1%	42.3%
10.00	446	169	46	47	10.4%	27.8%	287	111	46	47	16.2%	42.3%	159	82	33	33	20.6%	39.9%
11.00	403	168	46	47	11.5%	27.9%	259	117	46	47	17.9%	40.2%	183	94	33	33	17.8%	34.5%
12.00	417	152	46	47	11.1%	31.0%	238	79	46	47	19.5%	59.3%	219	65	33	33	14.9%	50.2%
13.00	511	177	47	43	9.2%	24.6%	304	95	33	29	11.0%	30.6%	214	85	33	29	15.6%	34.2%
14.00	506	186	47	43	9.3%	23.4%	275	107	33	29	12.1%	27.1%	187	83	33	29	17.9%	35.1%
15.00	508	184	48	49	9.5%	26.6%	293	116	35	35	11.8%	29.7%	182	86	35	35	19.0%	40.2%
16.00	524	149	59	49	11.3%	32.9%	245	76	46	35	18.6%	45.4%	221	82	46	35	20.7%	42.1%
17.00	497	113	66	43	13.2%	38.5%	201	69	52	29	25.9%	42.1%	181	60	52	29	28.7%	48.5%
18.00	369	94	33	31	8.9%	32.7%	187	53	19	16	10.2%	31.2%	143	47	19	16	13.3%	35.3%
19.00	248	85	31	20	12.5%	23.5%	134	69	31	20	23.1%	28.8%	130	54	31	20	23.8%	36.9%
20.00	183	64	20	20	10.9%	31.1%	106	57	20	20	18.9%	35.2%	100	50	20	20	20.1%	40.2%
21.00	144	47	26	22	18.2%	47.0%	89	40	26	22	29.5%	54.6%	74	34	26	22	35.6%	64.3%
22.00	109	32	26	22	24.2%	68.6%	67	23	26	22	39.3%	94.9%	73	15	26	22	36.1%	146.0%
23.00	143	41	5	5	3.5%	12.1%	77	24	5	5	6.5%	20.5%	74	20	5	5	6.7%	24.7%
12 hr	5645	1845	624	545	11.1%	29.5%	3143	1174	541	459	17.2%	39.1%	2159	905	458	373	21.2%	41.2%
24 hr	8506	2566	783	668	9.2%	26.0%	5018	1788	700	582	13.9%	32.6%	3430	1337	617	496	18.0%	37.1%

Link 3 - Barge Way East of Fleet End Roundabout

2024 Baseline + K3 Operational + WKN Operational + 2024 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	18	5	5	12.5%	27.1%	90	14	5	5	5.5%	35.3%	14	10	5	5	35.3%	49.6%
01.00	38	17	5	5	12.9%	29.4%	34	17	5	5	14.5%	29.0%	11	10	5	5	45.1%	49.6%
02.00	57	20	5	5	8.7%	25.4%	35	25	5	5	14.1%	19.7%	13	10	5	5	38.1%	49.6%
03.00	71	21	5	5	7.0%	23.3%	19	12	5	5	26.0%	41.3%	11	10	5	5	45.1%	49.6%
04.00	111	27	5	5	4.5%	18.2%	38	20	5	5	12.9%	24.7%	20	10	5	5	24.7%	49.6%
05.00	226	36	5	5	2.2%	13.9%	97	17	5	5	5.1%	29.0%	55	11	5	5	9.0%	45.1%
06.00	275	54	20	5	7.4%	9.1%	109	39	20	5	18.5%	12.6%	55	13	20	5	37.0%	38.1%
07.00	301	65	78	49	25.8%	75.0%	125	35	78	49	62.2%	138.7%	64	13	63	35	98.6%	265.5%
08.00	292	73	61	49	20.8%	66.7%	125	39	61	49	48.6%	124.4%	80	10	46	35	58.3%	346.1%
09.00	224	76	47	47	21.0%	61.8%	118	39	47	47	39.9%	119.3%	58	10	33	33	56.2%	326.1%
10.00	213	78	47	47	22.1%	59.9%	106	34	47	47	44.2%	136.9%	59	10	33	33	55.6%	326.1%
11.00	188	75	47	47	25.0%	62.5%	91	20	47	47	51.3%	233.4%	52	12	33	33	62.7%	271.2%
12.00	221	76	47	47	21.2%	61.6%	84	15	47	47	56.1%	311.8%	59	11	33	33	54.9%	296.2%
13.00	256	78	48	43	18.6%	56.0%	111	14	33	29	30.1%	207.2%	92	10	33	29	36.4%	291.0%
14.00	234	88	48	43	20.4%	49.5%	88	13	33	29	37.8%	223.3%	71	10	33	29	46.9%	291.0%
15.00	211	85	49	49	23.2%	57.8%	80	17	35	35	43.4%	202.6%	61	11	35	35	56.3%	314.3%
16.00	243	63	60	49	24.7%	77.2%	87	14	46	35	52.7%	246.4%	81	13	46	35	56.6%	265.5%
17.00	271	43	66	43	24.5%	100.6%	86	11	52	29	60.5%	264.3%	95	10	52	29	54.7%	291.0%
18.00	147	30	33	31	22.7%	102.6%	62	12	19	16	30.7%	137.0%	59	11	19	16	32.3%	149.6%
19.00	88	28	31	20	35.1%	70.3%	47	10	31	20	66.4%	199.8%	50	10	31	20	62.3%	199.8%
20.00	77	27	20	20	25.8%	75.1%	29	12	20	20	67.9%	166.2%	28	10	20	20	70.3%	199.8%
21.00	67	19	26	22	38.9%	113.9%	27	10	26	22	96.5%	219.8%	26	12	26	22	100.2%	182.8%
22.00	41	21	26	22	64.3%	105.0%	12	10	26	22	218.1%	219.8%	19	11	26	22	137.3%	199.6%
23.00	40	17	5	5	12.4%	29.0%	11	10	5	5	45.1%	49.6%	17	11	5	5	29.0%	45.1%
12 hr	2801	831	630	545	22.5%	65.6%	1163	265	544	459	46.8%	173.3%	831	131	458	373	55.2%	284.2%
24 hr	3932	1136	789	668	20.1%	58.8%	1712	462	703	582	41.0%	126.2%	1150	259	617	496	53.6%	191.5%

Link 4 - A249 South of Swale Way Junction

2024 Baseline + K3 Operational + WKN Operational + 2024 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	235	62	5	5	2.1%	8.0%	393	63	5	5	1.3%	7.9%	453	40	5	5	1.1%	12.3%
01.00	169	53	5	5	2.9%	9.3%	262	58	5	5	1.9%	8.6%	291	33	5	5	1.7%	14.9%
02.00	167	60	5	5	3.0%	8.3%	222	68	5	5	2.2%	7.3%	204	37	5	5	2.4%	13.6%
03.00	237	78	5	5	2.1%	6.4%	223	68	5	5	2.2%	7.3%	171	39	5	5	2.9%	12.8%
04.00	548	139	5	5	0.9%	3.6%	305	76	5	5	1.6%	6.5%	196	40	5	5	2.5%	12.5%
05.00	1339	239	5	5	0.4%	2.1%	695	140	5	5	0.7%	3.5%	409	75	5	5	1.2%	6.6%
06.00	2212	303	20	5	0.9%	1.6%	1041	181	20	5	1.9%	2.7%	625	109	20	5	3.1%	4.5%
07.00	3124	339	433	54	13.9%	15.9%	1415	193	367	48	26.0%	24.9%	801	106	78	35	9.7%	32.6%
08.00	2874	343	193	60	6.7%	17.5%	1803	204	92	60	5.1%	29.3%	1107	106	73	35	6.6%	32.6%
09.00	2192	357	114	52	5.2%	14.5%	2048	223	106	52	5.2%	23.3%	1628	147	72	33	4.4%	22.2%
10.00	2101	378	103	52	4.9%	13.7%	2343	211	111	52	4.7%	24.6%	2090	164	126	33	6.1%	19.9%
11.00	2136	369	104	52	4.9%	14.1%	2486	206	124	53	5.0%	25.6%	2312	162	138	33	6.0%	20.1%
12.00	2296	362	112	52	4.9%	14.3%	2678	183	145	57	5.4%	31.2%	2172	135	134	33	6.2%	24.2%
13.00	2329	380	118	48	5.0%	12.7%	2619	189	403	29	15.4%	15.4%	2133	144	127	29	5.9%	20.3%
14.00	2571	381	129	48	5.0%	12.7%	2400	174	124	29	5.2%	16.7%	2151	145	94	29	4.4%	20.1%
15.00	2860	376	148	54	5.2%	14.3%	2354	178	119	35	5.1%	19.5%	2124	156	109	35	5.1%	22.1%
16.00	3385	312	438	54	12.9%	17.3%	2296	151	110	35	4.8%	22.9%	2234	150	100	35	4.5%	23.1%
17.00	3658	272	180	54	4.9%	20.0%	2331	142	134	29	5.8%	20.6%	1944	136	100	29	5.1%	21.4%
18.00	2762	243	133	36	4.8%	14.7%	2033	129	92	16	4.5%	12.8%	1858	124	70	16	3.8%	13.3%
19.00	1846	184	31	20	1.7%	10.9%	1596	118	30	20	1.9%	17.0%	1543	111	30	20	2.0%	18.1%
20.00	1272	137	22	20	1.7%	14.6%	1159	86	20	20	1.7%	23.1%	1274	95	20	20	1.6%	21.1%
21.00	947	104	28	22	2.9%	21.2%	964	66	26	22	2.7%	33.3%	926	78	26	22	2.8%	28.0%
22.00	726	69	26	22	3.6%	32.0%	852	44	26	22	3.1%	50.0%	545	40	26	22	4.8%	55.1%
23.00	435	58	5	5	1.1%	8.5%	659	45	5	5	0.8%	11.1%	331	42	5	5	1.5%	11.9%
12 hr	32289	4112	2205	616	6.8%	15.0%	26806	2183	1930	495	7.2%	22.7%	22554	1674	1220	373	5.4%	22.3%
24 hr	42420	5597	2365	740	5.6%	13.2%	35179	3194	2086	618	5.9%	19.4%	29521	2413	1376	496	4.7%	20.6%

Link 5 - A249 between the A2 and M2

2024 Baseline + K3 Operational + WKN Operational + 2024 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	333	86	5	5	1.5%	5.8%	559	88	5	5	0.9%	5.7%	644	55	5	5	0.8%	9.0%
01.00	238	74	5	5	2.1%	6.7%	372	80	5	5	1.3%	6.2%	414	45	5	5	1.2%	11.0%
02.00	236	82	5	5	2.1%	6.0%	315	94	5	5	1.6%	5.3%	290	50	5	5	1.7%	10.0%
03.00	334	108	5	5	1.5%	4.6%	317	95	5	5	1.6%	5.2%	242	53	5	5	2.1%	9.3%
04.00	777	194	5	5	0.6%	2.6%	433	106	5	5	1.1%	4.7%	277	54	5	5	1.8%	9.2%
05.00	1873	323	5	5	0.3%	1.5%	971	185	5	5	0.5%	2.7%	562	92	5	5	0.9%	5.4%
06.00	3105	401	19	5	0.6%	1.2%	1451	232	19	5	1.3%	2.1%	854	129	19	5	2.2%	3.9%
07.00	4370	438	587	56	13.4%	12.9%	1968	243	436	49	22.1%	20.1%	1109	129	98	35	8.8%	26.9%
08.00	3947	444	367	64	9.3%	14.4%	2523	261	125	64	5.0%	24.4%	1544	130	112	35	7.3%	26.6%
09.00	3046	460	202	54	6.6%	11.8%	2898	283	185	54	6.4%	19.2%	2301	184	127	33	5.5%	17.7%
10.00	2911	487	177	54	6.1%	11.2%	3318	265	196	54	5.9%	20.5%	2988	206	258	33	8.6%	15.8%
11.00	2965	476	179	54	6.0%	11.4%	3536	258	225	55	6.4%	21.4%	3319	205	286	33	8.6%	15.9%
12.00	3193	475	198	54	6.2%	11.4%	3827	233	271	61	7.1%	26.1%	3125	174	272	33	8.7%	18.7%
13.00	3233	492	210	51	6.5%	10.3%	3719	234	230	29	6.2%	12.5%	3043	179	254	29	8.4%	16.3%
14.00	3573	498	237	51	6.6%	10.2%	3422	217	249	29	7.3%	13.4%	3060	184	177	29	5.8%	15.8%
15.00	4005	486	280	56	7.0%	11.6%	3349	218	235	35	7.0%	15.9%	3027	197	209	35	6.9%	17.6%
16.00	4747	401	618	56	13.0%	14.1%	3261	186	196	35	6.0%	18.6%	3177	193	174	35	5.5%	17.9%
17.00	5113	345	321	58	6.3%	16.9%	3322	173	247	29	7.4%	16.8%	2762	175	165	29	6.0%	16.6%
18.00	3899	310	264	38	6.8%	12.3%	2904	159	193	16	6.6%	10.4%	2653	161	139	16	5.3%	10.2%
19.00	2591	239	31	20	1.2%	8.3%	2248	148	30	20	1.3%	13.5%	2172	138	30	20	1.4%	14.5%
20.00	1785	175	24	20	1.4%	11.4%	1634	107	20	20	1.2%	18.7%	1798	118	20	20	1.1%	16.9%
21.00	1328	133	30	22	2.2%	16.5%	1361	82	26	22	1.9%	26.7%	1306	100	26	22	2.0%	22.1%
22.00	1021	95	26	22	2.5%	23.1%	1216	60	26	22	2.1%	36.4%	777	55	26	22	3.3%	40.3%
23.00	616	81	5	5	0.8%	6.2%	940	61	5	5	0.5%	8.1%	470	57	5	5	1.1%	8.7%
12 hr	45002	5311	3641	648	8.1%	12.2%	38048	2731	2789	510	7.3%	18.7%	32108	2118	2270	373	7.1%	17.6%
24 hr	59239	7303	3805	772	6.4%	10.6%	49865	4070	2944	634	5.9%	15.6%	41914	3063	2425	496	5.8%	16.2%

Link 6 - M2 West

2024 Baseline + K3 Operational + WKN Operational + 2024 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	425	108	3	3	0.7%	2.8%	708	120	3	3	0.4%	2.6%	866	66	3	3	0.4%	4.6%
01.00	323	100	3	3	0.9%	3.1%	469	103	3	3	0.7%	3.0%	530	63	3	3	0.6%	4.9%
02.00	338	114	3	3	0.9%	2.7%	395	96	3	3	0.8%	3.2%	351	48	3	3	0.9%	6.4%
03.00	464	157	3	3	0.7%	1.9%	416	117	3	3	0.7%	2.6%	312	68	3	3	1.0%	4.5%
04.00	1072	263	3	3	0.3%	1.2%	563	148	3	3	0.5%	2.1%	335	59	3	3	0.9%	5.2%
05.00	2827	446	3	3	0.1%	0.7%	1196	210	3	3	0.3%	1.5%	684	95	3	3	0.4%	3.2%
06.00	4264	524	7	3	0.2%	0.6%	1800	266	7	3	0.4%	1.2%	1026	123	7	3	0.7%	2.5%
07.00	5694	537	177	27	3.1%	5.0%	2513	300	140	24	5.6%	7.9%	1399	130	38	21	2.7%	16.5%
08.00	5262	589	104	30	2.0%	5.1%	3224	306	46	30	1.4%	9.9%	1870	133	41	21	2.2%	16.0%
09.00	4362	615	61	26	1.4%	4.2%	3619	304	57	26	1.6%	8.5%	2773	181	43	20	1.5%	11.1%
10.00	4023	602	55	26	1.4%	4.3%	4139	296	60	26	1.4%	8.7%	3753	210	74	20	2.0%	9.6%
11.00	4016	586	56	26	1.4%	4.4%	4589	276	67	26	1.5%	9.4%	4291	238	81	20	1.9%	8.5%
12.00	4365	626	60	26	1.4%	4.1%	4813	254	79	29	1.6%	11.3%	4624	212	77	20	1.7%	9.5%
13.00	4530	648	62	24	1.4%	3.6%	4733	252	171	18	3.6%	7.1%	4390	223	72	18	1.6%	8.0%
14.00	4821	647	68	24	1.4%	3.6%	4358	246	71	18	1.6%	7.3%	3999	221	54	18	1.3%	8.1%
15.00	5328	629	80	27	1.5%	4.3%	4185	229	69	21	1.7%	9.3%	3820	211	63	21	1.6%	10.1%
16.00	6269	506	184	27	2.9%	5.3%	4365	213	61	21	1.4%	10.0%	4229	200	55	21	1.3%	10.7%
17.00	6664	412	91	27	1.4%	6.5%	4142	182	72	18	1.7%	9.9%	3845	188	52	18	1.3%	9.6%
18.00	4984	347	70	16	1.4%	4.5%	3662	169	53	10	1.4%	6.0%	3397	154	40	10	1.2%	6.6%
19.00	3244	269	15	12	0.5%	4.6%	2803	137	15	12	0.5%	9.0%	2805	138	15	12	0.5%	8.9%
20.00	2268	184	12	12	0.5%	6.7%	2026	99	12	12	0.6%	12.5%	2118	100	12	12	0.6%	12.4%
21.00	1664	129	15	14	0.9%	10.5%	1572	80	15	14	0.9%	17.0%	1500	85	15	14	1.0%	16.0%
22.00	1335	109	15	14	1.1%	12.5%	1564	60	15	14	0.9%	22.5%	965	59	15	14	1.5%	23.1%
23.00	796	105	3	3	0.4%	2.9%	1210	66	3	3	0.3%	4.7%	553	76	3	3	0.6%	4.0%
12 hr	60318	6744	1069	304	1.8%	4.5%	48343	3029	944	267	2.0%	8.8%	42392	2301	689	230	1.6%	10.0%
24 hr	79338	9252	1154	380	1.5%	4.1%	63065	4530	1030	343	1.6%	7.6%	54439	3279	775	306	1.4%	9.3%



Link 7 - M2 East

2024 Baseline + K3 Operational + WKN Operational + 2024 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.1%	0.3%	649	110	0	0	0.1%	0.3%	795	60	0	0	0.0%	0.6%
01.00	296	92	0	0	0.1%	0.4%	430	94	0	0	0.1%	0.4%	487	57	0	0	0.1%	0.6%
02.00	310	104	0	0	0.1%	0.3%	363	88	0	0	0.1%	0.4%	322	44	0	0	0.1%	0.8%
03.00	425	144	0	0	0.1%	0.2%	382	107	0	0	0.1%	0.3%	287	62	0	0	0.1%	0.5%
04.00	983	241	0	0	0.0%	0.1%	516	136	0	0	0.1%	0.2%	307	53	0	0	0.1%	0.6%
05.00	2574	394	0	0	0.0%	0.1%	1081	177	0	0	0.0%	0.2%	611	72	0	0	0.1%	0.5%
06.00	3881	453	2	0	0.1%	0.1%	1623	217	2	0	0.1%	0.2%	912	85	2	0	0.3%	0.4%
07.00	5178	469	69	7	1.3%	1.4%	2279	253	60	4	2.7%	1.6%	1254	97	8	2	0.6%	2.4%
08.00	4756	519	23	9	0.5%	1.8%	2929	260	13	9	0.4%	3.5%	1685	102	7	2	0.4%	2.3%
09.00	3954	537	13	6	0.3%	1.2%	3284	254	12	6	0.4%	2.6%	2509	141	6	2	0.2%	1.5%
10.00	3640	523	12	6	0.3%	1.2%	3757	244	12	6	0.3%	2.7%	3397	164	12	2	0.3%	1.3%
11.00	3636	509	12	6	0.3%	1.3%	4170	227	14	7	0.3%	3.0%	3891	191	13	2	0.3%	1.1%
12.00	3962	556	12	6	0.3%	1.2%	4383	217	17	9	0.4%	4.0%	4207	178	12	2	0.3%	1.2%
13.00	4103	567	13	6	0.3%	1.1%	4297	205	63	2	1.5%	0.9%	3981	179	12	2	0.3%	1.1%
14.00	4373	571	14	6	0.3%	1.1%	3959	204	12	2	0.3%	1.0%	3634	181	9	2	0.2%	1.1%
15.00	4834	550	16	7	0.3%	1.2%	3796	184	11	2	0.3%	1.3%	3462	168	10	2	0.3%	1.4%
16.00	5701	444	69	7	1.2%	1.5%	3970	176	10	2	0.3%	1.3%	3847	164	9	2	0.2%	1.4%
17.00	6054	359	22	9	0.4%	2.4%	3765	148	13	2	0.4%	1.3%	3498	154	10	2	0.3%	1.3%
18.00	4541	303	15	5	0.3%	1.8%	3333	142	9	1	0.3%	0.8%	3092	128	6	1	0.2%	0.9%
19.00	2953	228	3	1	0.1%	0.6%	2551	107	3	1	0.1%	1.3%	2553	108	3	1	0.1%	1.2%
20.00	2064	153	1	1	0.1%	0.9%	1844	75	1	1	0.1%	1.8%	1928	76	1	1	0.1%	1.8%
21.00	1515	108	2	1	0.1%	1.4%	1432	63	2	1	0.1%	2.3%	1366	68	2	1	0.2%	2.2%
22.00	1222	100	2	1	0.2%	1.5%	1435	55	2	1	0.1%	2.7%	886	54	2	1	0.2%	2.7%
23.00	730	96	0	0	0.0%	0.3%	1111	60	0	0	0.0%	0.6%	507	69	0	0	0.1%	0.5%
12 hr	54731	5906	289	81	0.5%	1.4%	43920	2515	246	53	0.6%	2.1%	38458	1846	112	25	0.3%	1.4%
24 hr	72075	8117	302	90	0.4%	1.1%	57338	3804	259	62	0.5%	1.6%	49419	2655	125	33	0.3%	1.3%

Link 8 - Swale Way north of Reams Way Junction

2024 Baseline + K3 Operational + WKN Operational + 2024 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	644	51	0	0	0.0%	0.0%	240	19	0	0	0.0%	0.0%	129	12	0	0	0.1%	0.0%
07.00	1413	84	43	1	3.1%	1.4%	348	22	43	0	12.2%	1.4%	154	12	0	0	0.1%	0.0%
08.00	1498	83	2	2	0.1%	2.4%	450	30	2	2	0.5%	6.8%	153	14	0	0	0.0%	0.0%
09.00	949	98	1	1	0.1%	1.2%	570	31	1	1	0.2%	3.8%	322	13	0	0	0.0%	0.0%
10.00	839	106	2	2	0.3%	2.1%	704	34	2	2	0.3%	6.4%	437	18	0	0	0.0%	0.0%
11.00	830	100	2	2	0.3%	2.2%	770	23	3	3	0.4%	13.2%	529	24	0	0	0.0%	0.0%
12.00	931	102	1	1	0.1%	1.1%	732	25	1	1	0.2%	4.7%	556	19	0	0	0.0%	0.0%
13.00	900	93	1	1	0.1%	1.3%	692	33	42	0	6.1%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	1	1	0.1%	1.2%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1187	86	1	1	0.1%	1.4%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	43	1	3.1%	1.5%	553	20	0	0	0.0%	0.0%	539	17	0	0	0.0%	0.0%
17.00	1298	61	2	2	0.2%	3.3%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	1	1	0.1%	1.9%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	483	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	258	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.1%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13171	1048	103	18	0.8%	1.7%	7129	303	95	10	1.3%	3.3%	5243	184	1	0	0.0%	0.0%
24 hr	16112	1358	103	18	0.6%	1.3%	8930	429	95	10	1.1%	2.3%	6616	280	1	0	0.0%	0.0%

Link 9 - Swale Way south of Reams Way Junction

2024 Baseline + K3 Operational + WKN Operational + 2024 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	656	57	0	0	0.0%	0.0%	273	20	0	0	0.0%	0.0%	133	13	0	0	0.1%	0.0%
07.00	1416	85	43	1	3.1%	1.4%	346	27	43	0	12.3%	1.2%	188	12	0	0	0.1%	0.0%
08.00	1431	93	2	2	0.1%	2.2%	484	26	2	2	0.4%	7.8%	155	7	0	0	0.0%	0.0%
09.00	917	105	1	1	0.1%	1.1%	574	35	1	1	0.2%	3.4%	324	15	0	0	0.0%	0.0%
10.00	828	107	2	2	0.3%	2.0%	716	25	2	2	0.3%	8.7%	474	15	0	0	0.0%	0.0%
11.00	850	108	2	2	0.3%	2.0%	775	35	3	3	0.4%	8.7%	506	17	0	0	0.0%	0.0%
12.00	917	98	1	1	0.1%	1.2%	749	34	1	1	0.2%	3.5%	522	15	0	0	0.0%	0.0%
13.00	949	92	1	1	0.1%	1.3%	622	32	42	0	6.8%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	1	1	0.1%	1.1%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	1	1	0.1%	1.3%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1432	81	43	1	3.0%	1.4%	547	19	0	0	0.0%	0.0%	440	14	0	0	0.0%	0.0%
17.00	1369	64	2	2	0.2%	3.2%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	1	1	0.1%	1.9%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	477	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.1%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13206	1090	103	18	0.8%	1.6%	6974	315	95	10	1.4%	3.1%	4860	194	1	0	0.0%	0.0%
24 hr	16130	1399	103	18	0.6%	1.3%	8846	423	95	10	1.1%	2.3%	6171	278	1	0	0.0%	0.0%

Link 10 - Swale Way south of Ridham Avenue Roundabout

2024 Baseline + K3 Operational + WKN Operational + 2024 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	565	37	0	0	0.0%	0.0%	197	12	0	0	0.0%	0.0%	99	5	0	0	0.1%	0.0%
07.00	1312	66	43	1	3.3%	1.8%	319	16	43	0	13.4%	2.0%	138	5	0	0	0.1%	0.0%
08.00	1401	70	2	2	0.1%	2.9%	421	17	2	2	0.5%	11.9%	139	4	0	0	0.0%	0.0%
09.00	869	82	1	1	0.1%	1.4%	541	18	1	1	0.2%	6.5%	312	4	0	0	0.0%	0.0%
10.00	741	87	2	2	0.3%	2.5%	681	16	2	2	0.3%	13.6%	404	8	0	0	0.0%	0.0%
11.00	739	75	2	2	0.3%	2.9%	763	11	3	3	0.4%	27.5%	518	9	0	0	0.0%	0.0%
12.00	822	81	1	1	0.1%	1.4%	717	15	1	1	0.2%	7.8%	540	11	0	0	0.0%	0.0%
13.00	833	73	1	1	0.1%	1.6%	658	16	42	0	6.4%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	76	1	1	0.1%	1.5%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	1	1	0.1%	1.5%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	43	1	3.2%	1.8%	532	13	0	0	0.0%	0.0%	521	11	0	0	0.0%	0.0%
17.00	1242	55	2	2	0.2%	3.7%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	49	1	1	0.2%	2.4%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	431	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.1%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12150	859	103	18	0.8%	2.1%	6804	168	95	10	1.4%	5.9%	5023	84	1	0	0.0%	0.0%
24 hr	14587	1052	103	18	0.7%	1.7%	8376	243	95	10	1.1%	4.1%	6217	120	1	0	0.0%	0.0%

Link 11 - A249 North of Swale Way Junction

2024 Baseline + K3 Operational + WKN Operational + 2024 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.1%	0.0%	436	30	0	0	0.1%	0.0%
07.00	3011	190	45	0	1.5%	0.2%	1138	81	14	0	1.3%	0.5%	581	26	10	0	1.6%	0.0%
08.00	2710	235	65	0	2.4%	0.2%	1542	83	12	0	0.8%	0.5%	871	31	15	0	1.7%	0.0%
09.00	2053	237	34	0	1.7%	0.2%	1887	76	29	0	1.6%	0.5%	1368	48	21	0	1.5%	0.0%
10.00	1965	234	28	0	1.4%	0.2%	2223	85	32	0	1.5%	0.5%	2020	41	50	0	2.5%	0.0%
11.00	2067	230	29	0	1.4%	0.2%	2492	70	39	0	1.6%	0.6%	2331	38	57	0	2.4%	0.0%
12.00	2199	227	34	0	1.5%	0.2%	2640	62	49	0	1.8%	0.6%	2543	44	56	0	2.2%	0.0%
13.00	2234	221	36	0	1.6%	0.2%	2539	61	57	0	2.2%	0.0%	2416	47	52	0	2.2%	0.0%
14.00	2349	239	43	0	1.8%	0.2%	2405	57	50	0	2.1%	0.0%	2133	42	33	0	1.6%	0.0%
15.00	2574	205	53	0	2.0%	0.2%	2333	45	47	0	2.0%	0.0%	2049	45	41	0	2.0%	0.0%
16.00	3163	169	60	0	1.9%	0.2%	2290	49	37	0	1.6%	0.0%	2114	41	30	0	1.4%	0.0%
17.00	3303	126	59	0	1.8%	0.3%	2188	36	47	0	2.1%	0.0%	1964	39	28	0	1.4%	0.0%
18.00	2284	83	54	0	2.3%	0.5%	1847	36	41	0	2.2%	0.0%	1763	43	28	0	1.6%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	1	0	0.1%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	1	0	0.1%	0.0%	822	25	0	0	0.0%	0.0%	703	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.1%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.1%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29912	2396	539	5	1.8%	0.2%	25525	741	454	2	1.8%	0.3%	22154	485	422	0	1.9%	0.0%
24 hr	37856	3118	543	5	1.4%	0.2%	32339	1116	456	2	1.4%	0.2%	27695	709	424	0	1.5%	0.0%

Link 1 - Swale Way East of B2005 Groveshurst Roundabout

2024 Baseline + K3 Operational + WKN Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	165	56	0	0	0.0%	0.0%	184	50	0	0	0.0%	0.0%	189	20	0	0	0.0%	0.0%
01.00	153	51	0	0	0.0%	0.0%	163	60	0	0	0.0%	0.0%	162	19	0	0	0.0%	0.0%
02.00	169	47	0	0	0.0%	0.0%	133	50	0	0	0.0%	0.0%	102	18	0	0	0.0%	0.0%
03.00	247	71	0	0	0.0%	0.0%	170	51	0	0	0.0%	0.0%	87	20	0	0	0.0%	0.0%
04.00	371	85	0	0	0.0%	0.0%	209	66	0	0	0.0%	0.0%	105	21	0	0	0.0%	0.0%
05.00	950	140	0	0	0.0%	0.0%	535	98	0	0	0.0%	0.0%	294	52	0	0	0.0%	0.0%
06.00	1125	194	11	0	1.0%	0.0%	527	139	11	0	2.1%	0.0%	256	80	11	0	4.3%	0.0%
07.00	1914	241	91	25	4.8%	10.2%	706	153	90	24	12.8%	15.4%	293	79	41	17	14.2%	21.6%
08.00	2229	231	25	25	1.1%	11.0%	741	134	25	25	3.4%	18.9%	315	75	17	17	5.4%	22.7%
09.00	1350	254	23	23	1.7%	8.9%	803	157	23	23	2.8%	14.3%	325	83	15	15	4.6%	18.1%
10.00	1232	275	23	23	1.8%	8.2%	911	158	23	23	2.5%	14.3%	344	91	15	15	4.4%	16.4%
11.00	1258	262	23	23	1.8%	8.6%	940	153	23	23	2.5%	15.2%	564	89	15	15	2.7%	16.9%
12.00	1377	247	23	23	1.6%	9.1%	962	130	23	23	2.3%	17.3%	864	73	15	15	1.7%	20.7%
13.00	1494	270	19	19	1.3%	7.0%	924	126	54	12	5.8%	9.2%	532	87	12	12	2.2%	13.3%
14.00	1475	262	19	19	1.3%	7.3%	904	123	12	12	1.3%	9.4%	545	81	12	12	2.1%	14.1%
15.00	1596	258	25	25	1.5%	9.5%	916	129	17	17	1.9%	13.2%	546	84	17	17	3.1%	20.3%
16.00	1725	215	78	25	4.5%	11.4%	823	114	28	17	3.4%	15.0%	665	71	28	17	4.2%	24.1%
17.00	1837	179	31	20	1.7%	11.1%	839	99	22	12	2.7%	11.7%	695	68	22	12	3.2%	17.0%
18.00	1214	141	22	19	1.8%	13.5%	695	77	14	12	2.0%	15.0%	456	46	14	12	3.1%	25.2%
19.00	734	102	26	15	3.5%	14.8%	555	73	26	15	4.7%	20.6%	521	56	26	15	5.0%	26.7%
20.00	549	98	15	15	2.7%	15.3%	406	74	15	15	3.7%	20.4%	369	49	15	15	4.1%	30.8%
21.00	394	73	17	17	4.3%	23.3%	322	54	17	17	5.3%	31.4%	231	38	17	17	7.4%	44.4%
22.00	309	54	17	17	5.5%	31.4%	285	30	17	17	6.0%	56.5%	314	15	17	17	5.4%	113.8%
23.00	203	51	0	0	0.0%	0.0%	209	34	0	0	0.0%	0.0%	202	15	0	0	0.0%	0.0%
12 hr	18700	2835	399	266	2.1%	9.4%	10164	1552	353	220	3.5%	14.2%	6144	925	223	174	3.6%	18.8%
24 hr	24069	3857	485	330	2.0%	8.6%	13862	2333	439	284	3.2%	12.2%	8974	1328	309	238	3.4%	17.9%

Link 2 - Barge Way North of Swale Roundabout

2024 Baseline + K3 Operational + WKN Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	133	40	0	0	0.0%	0.0%	138	36	0	0	0.0%	0.0%	105	31	0	0	0.0%	0.0%
01.00	136	37	0	0	0.0%	0.0%	112	31	0	0	0.0%	0.0%	92	30	0	0	0.0%	0.0%
02.00	174	38	0	0	0.0%	0.0%	135	40	0	0	0.0%	0.0%	93	27	0	0	0.0%	0.0%
03.00	228	56	0	0	0.0%	0.0%	171	48	0	0	0.0%	0.0%	86	30	0	0	0.0%	0.0%
04.00	313	68	0	0	0.0%	0.0%	216	62	0	0	0.0%	0.0%	109	33	0	0	0.0%	0.0%
05.00	550	104	0	0	0.0%	0.0%	351	90	0	0	0.0%	0.0%	199	60	0	0	0.0%	0.0%
06.00	539	143	11	0	2.0%	0.0%	318	128	11	0	3.5%	0.0%	177	82	11	0	6.2%	0.0%
07.00	544	172	48	24	8.9%	13.9%	330	138	48	24	14.7%	17.3%	178	95	42	17	23.4%	18.0%
08.00	551	170	24	24	4.3%	14.1%	314	141	24	24	7.6%	16.9%	190	84	17	17	9.0%	20.3%
09.00	459	188	22	22	4.8%	11.6%	301	147	22	22	7.3%	14.9%	172	95	15	15	8.7%	15.9%
10.00	470	194	22	22	4.6%	11.3%	312	136	22	22	7.0%	16.1%	176	99	15	15	8.5%	15.1%
11.00	427	193	22	22	5.1%	11.3%	283	142	22	22	7.7%	15.4%	201	112	15	15	7.5%	13.4%
12.00	441	177	22	22	5.0%	12.4%	262	104	22	22	8.3%	21.0%	236	83	15	15	6.4%	18.2%
13.00	540	202	18	18	3.4%	9.1%	326	113	12	12	3.5%	10.2%	236	103	12	12	4.9%	11.2%
14.00	535	211	18	18	3.4%	8.7%	296	125	12	12	3.9%	9.2%	208	101	12	12	5.5%	11.5%
15.00	532	209	24	24	4.5%	11.4%	311	134	17	17	5.5%	12.7%	200	104	17	17	8.5%	16.4%
16.00	549	174	35	24	6.4%	13.7%	263	94	28	17	10.7%	18.2%	238	100	28	17	11.8%	17.0%
17.00	534	138	29	18	5.5%	13.3%	230	87	23	12	9.8%	13.3%	211	78	23	12	10.7%	14.8%
18.00	381	107	21	18	5.5%	17.2%	192	58	14	12	7.3%	20.0%	148	52	14	12	9.5%	22.3%
19.00	253	90	26	15	10.3%	16.7%	139	74	26	15	18.7%	20.2%	135	59	26	15	19.3%	25.4%
20.00	188	69	15	15	8.0%	21.7%	111	62	15	15	13.6%	24.3%	104	55	15	15	14.4%	27.5%
21.00	154	52	17	17	11.1%	32.9%	98	45	17	17	17.4%	37.6%	83	39	17	17	20.6%	43.5%
22.00	118	37	17	17	14.5%	46.0%	76	28	17	17	22.4%	60.5%	82	20	17	17	20.8%	85.0%
23.00	148	46	0	0	0.0%	0.0%	82	29	0	0	0.0%	0.0%	79	25	0	0	0.0%	0.0%
12 hr	5964	2134	305	256	5.1%	12.0%	3420	1417	264	215	7.7%	15.2%	2394	1103	223	174	9.3%	15.8%
24 hr	8898	2914	392	320	4.4%	11.0%	5367	2091	351	279	6.5%	13.4%	3737	1595	310	238	8.3%	14.9%

Link 3 - Barge Way East of Fleet End Roundabout

2024 Baseline + K3 Operational + WKN Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	45	23	0	0	0.0%	0.0%	95	19	0	0	0.0%	0.0%	19	15	0	0	0.0%	0.0%
01.00	43	22	0	0	0.0%	0.0%	39	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
02.00	62	24	0	0	0.0%	0.0%	40	30	0	0	0.0%	0.0%	18	15	0	0	0.0%	0.0%
03.00	75	26	0	0	0.0%	0.0%	24	17	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
04.00	116	32	0	0	0.0%	0.0%	43	25	0	0	0.0%	0.0%	25	15	0	0	0.0%	0.0%
05.00	231	41	0	0	0.0%	0.0%	102	22	0	0	0.0%	0.0%	60	16	0	0	0.0%	0.0%
06.00	284	59	11	0	3.9%	0.0%	119	44	11	0	9.3%	0.0%	64	18	11	0	17.3%	0.0%
07.00	330	90	48	24	14.7%	26.4%	154	60	48	24	31.4%	39.5%	86	31	42	17	48.3%	55.6%
08.00	329	98	24	24	7.2%	24.2%	162	64	24	24	14.7%	37.0%	109	28	17	17	15.6%	61.7%
09.00	249	101	22	22	8.8%	21.6%	143	64	22	22	15.3%	33.9%	76	28	15	15	19.9%	54.4%
10.00	238	103	22	22	9.2%	21.1%	131	59	22	22	16.6%	36.8%	76	28	15	15	19.7%	54.4%
11.00	213	100	22	22	10.3%	21.8%	117	45	22	22	18.8%	48.4%	70	30	15	15	21.6%	50.7%
12.00	247	101	22	22	8.9%	21.6%	109	40	22	22	20.1%	54.4%	77	29	15	15	19.5%	52.5%
13.00	286	103	18	18	6.4%	17.9%	133	32	12	12	8.7%	36.4%	113	28	12	12	10.1%	41.7%
14.00	263	113	18	18	7.0%	16.3%	110	31	12	12	10.5%	37.6%	93	28	12	12	12.4%	41.7%
15.00	236	110	24	24	10.1%	21.7%	97	35	17	17	17.5%	49.1%	79	29	17	17	21.5%	59.5%
16.00	268	89	35	24	13.0%	27.0%	104	32	28	17	26.9%	53.8%	98	31	28	17	28.6%	55.6%
17.00	308	68	29	18	9.5%	26.9%	115	29	23	12	19.5%	40.2%	124	28	23	12	18.1%	41.7%
18.00	159	42	21	18	13.1%	43.2%	67	17	14	12	21.0%	67.8%	64	16	14	12	22.0%	72.1%
19.00	93	33	26	15	27.9%	45.0%	52	15	26	15	50.4%	100.4%	55	15	26	15	47.6%	100.4%
20.00	82	32	15	15	18.2%	47.6%	34	17	15	15	43.7%	88.4%	33	15	15	15	45.0%	100.4%
21.00	77	24	17	17	22.2%	70.1%	36	15	17	17	46.8%	113.8%	35	17	17	17	48.1%	100.2%
22.00	50	26	17	17	34.1%	65.8%	21	15	17	17	80.2%	113.8%	28	16	17	17	60.1%	106.6%
23.00	45	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%	22	16	0	0	0.0%	0.0%
12 hr	3126	1119	305	256	9.8%	22.9%	1443	508	264	215	18.3%	42.4%	1066	330	223	174	21.0%	52.9%
24 hr	4329	1484	392	320	9.0%	21.6%	2064	765	351	279	17.0%	36.5%	1458	517	310	238	21.2%	46.1%



Link 4 - A249 South of Swale Way Junction

2024 Baseline + K3 Operational + WKN Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	240	67	0	0	0.0%	0.0%	398	68	0	0	0.0%	0.0%	458	45	0	0	0.0%	0.0%
01.00	174	58	0	0	0.0%	0.0%	267	63	0	0	0.0%	0.0%	296	38	0	0	0.0%	0.0%
02.00	172	65	0	0	0.0%	0.0%	227	73	0	0	0.0%	0.0%	209	42	0	0	0.0%	0.0%
03.00	242	83	0	0	0.0%	0.0%	228	73	0	0	0.0%	0.0%	176	44	0	0	0.0%	0.0%
04.00	553	144	0	0	0.0%	0.0%	310	81	0	0	0.0%	0.0%	201	45	0	0	0.0%	0.0%
05.00	1343	244	0	0	0.0%	0.0%	700	145	0	0	0.0%	0.0%	414	80	0	0	0.0%	0.0%
06.00	2221	308	11	0	0.5%	0.0%	1050	186	11	0	1.0%	0.0%	634	114	11	0	1.7%	0.0%
07.00	3153	363	404	29	12.8%	8.1%	1443	217	339	23	23.5%	10.8%	822	124	56	17	6.8%	13.8%
08.00	2910	368	157	35	5.4%	9.6%	1839	229	56	35	3.1%	15.5%	1136	124	44	17	3.9%	13.8%
09.00	2217	381	89	27	4.0%	7.2%	2072	247	82	27	3.9%	11.1%	1645	165	54	15	3.3%	9.1%
10.00	2126	403	79	27	3.7%	6.8%	2367	236	87	27	3.7%	11.6%	2107	181	109	15	5.2%	8.3%
11.00	2160	393	80	27	3.7%	7.0%	2511	231	99	28	4.0%	12.3%	2330	180	121	15	5.2%	8.4%
12.00	2321	387	88	27	3.8%	7.1%	2703	207	121	33	4.5%	15.7%	2190	152	116	15	5.3%	9.9%
13.00	2358	404	89	24	3.8%	5.9%	2640	206	382	12	14.5%	5.6%	2154	161	105	12	4.9%	7.1%
14.00	2600	405	101	24	3.9%	5.9%	2422	192	103	12	4.2%	6.0%	2173	162	72	12	3.3%	7.1%
15.00	2884	400	124	29	4.3%	7.4%	2372	195	102	17	4.3%	8.7%	2142	174	91	17	4.2%	9.8%
16.00	3409	336	414	29	12.1%	8.8%	2313	169	92	17	4.0%	10.1%	2252	167	82	17	3.6%	10.2%
17.00	3694	296	144	30	3.9%	10.1%	2360	159	105	12	4.5%	7.2%	1973	154	71	12	3.6%	7.5%
18.00	2774	255	121	24	4.4%	9.4%	2038	134	87	12	4.3%	8.6%	1863	129	65	12	3.5%	9.0%
19.00	1851	189	26	15	1.4%	7.9%	1601	123	26	15	1.6%	12.3%	1548	115	26	15	1.6%	13.0%
20.00	1277	142	17	15	1.3%	10.6%	1164	91	15	15	1.3%	16.4%	1279	100	15	15	1.2%	15.1%
21.00	956	109	19	17	1.9%	15.6%	973	71	17	17	1.7%	24.0%	935	83	17	17	1.8%	20.4%
22.00	735	74	17	17	2.3%	23.1%	861	49	17	17	2.0%	34.8%	554	45	17	17	3.1%	38.0%
23.00	440	63	0	0	0.0%	0.0%	664	50	0	0	0.0%	0.0%	336	47	0	0	0.0%	0.0%
12 hr	32605	4392	1889	336	5.8%	7.6%	27081	2422	1655	255	6.1%	10.5%	22787	1873	986	174	4.3%	9.3%
24 hr	42808	5937	1978	400	4.6%	6.7%	35525	3494	1740	319	4.9%	9.1%	29826	2671	1071	238	3.6%	8.9%

Link 5 - A249 between the A2 and M2

2024 Baseline + K3 Operational + WKN Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	338	91	0	0	0.0%	0.0%	564	93	0	0	0.0%	0.0%	649	60	0	0	0.0%	0.0%
01.00	243	79	0	0	0.0%	0.0%	377	85	0	0	0.0%	0.0%	419	50	0	0	0.0%	0.0%
02.00	241	87	0	0	0.0%	0.0%	320	99	0	0	0.0%	0.0%	295	55	0	0	0.0%	0.0%
03.00	339	113	0	0	0.0%	0.0%	322	100	0	0	0.0%	0.0%	247	58	0	0	0.0%	0.0%
04.00	782	199	0	0	0.0%	0.0%	438	111	0	0	0.0%	0.0%	282	59	0	0	0.0%	0.0%
05.00	1878	328	0	0	0.0%	0.0%	976	190	0	0	0.0%	0.0%	567	97	0	0	0.0%	0.0%
06.00	3114	406	10	0	0.3%	0.0%	1459	237	10	0	0.7%	0.0%	863	134	10	0	1.2%	0.0%
07.00	4398	463	558	31	12.7%	6.7%	1997	268	407	24	20.4%	8.9%	1130	146	76	17	6.7%	11.6%
08.00	3983	469	331	39	8.3%	8.2%	2559	286	89	39	3.5%	13.5%	1572	148	84	17	5.3%	11.5%
09.00	3071	485	177	29	5.8%	6.0%	2923	308	159	29	5.5%	9.5%	2319	202	109	15	4.7%	7.4%
10.00	2936	512	152	29	5.2%	5.7%	3343	290	171	29	5.1%	10.1%	3005	223	240	15	8.0%	6.7%
11.00	2990	501	154	29	5.1%	5.8%	3561	283	200	30	5.6%	10.6%	3336	222	268	15	8.0%	6.8%
12.00	3219	500	173	29	5.4%	5.9%	3852	258	246	36	6.4%	13.9%	3142	192	255	15	8.1%	7.8%
13.00	3262	517	181	26	5.6%	5.0%	3740	251	209	12	5.6%	4.6%	3064	196	233	12	7.6%	5.9%
14.00	3602	523	208	26	5.8%	4.9%	3444	235	227	12	6.6%	4.9%	3082	202	155	12	5.0%	5.7%
15.00	4030	511	254	31	6.3%	6.1%	3367	235	217	17	6.5%	7.2%	3045	215	191	17	6.3%	7.9%
16.00	4772	426	593	31	12.4%	7.3%	3278	204	179	17	5.4%	8.4%	3195	211	157	17	4.9%	8.1%
17.00	5149	371	286	33	5.5%	8.9%	3351	191	219	12	6.5%	6.0%	2791	193	137	12	4.9%	6.0%
18.00	3911	323	251	26	6.4%	8.0%	2909	164	188	12	6.5%	7.0%	2658	166	134	12	5.1%	6.9%
19.00	2596	244	26	15	1.0%	6.1%	2253	153	25	15	1.1%	9.8%	2177	143	25	15	1.2%	10.5%
20.00	1790	180	19	15	1.1%	8.3%	1639	112	15	15	0.9%	13.4%	1803	123	15	15	0.8%	12.2%
21.00	1337	138	21	17	1.6%	12.3%	1370	87	17	17	1.2%	19.5%	1315	105	17	17	1.3%	16.3%
22.00	1030	100	17	17	1.7%	17.0%	1225	65	17	17	1.4%	26.0%	786	60	17	17	2.2%	28.6%
23.00	621	86	0	0	0.0%	0.0%	945	66	0	0	0.0%	0.0%	475	62	0	0	0.0%	0.0%
12 hr	45324	5600	3319	360	7.3%	6.4%	38324	2974	2512	267	6.6%	9.0%	32339	2316	2038	174	6.3%	7.5%
24 hr	59632	7651	3412	424	5.7%	5.5%	50213	4373	2596	331	5.2%	7.6%	42217	3321	2123	238	5.0%	7.2%

Link 6 - M2 West

2024 Baseline + K3 Operational + WKN Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	428	111	0	0	0.0%	0.0%	711	123	0	0	0.0%	0.0%	869	69	0	0	0.0%	0.0%
01.00	326	103	0	0	0.0%	0.0%	472	106	0	0	0.0%	0.0%	533	66	0	0	0.0%	0.0%
02.00	341	117	0	0	0.0%	0.0%	398	99	0	0	0.0%	0.0%	355	51	0	0	0.0%	0.0%
03.00	467	160	0	0	0.0%	0.0%	419	120	0	0	0.0%	0.0%	315	71	0	0	0.0%	0.0%
04.00	1075	267	0	0	0.0%	0.0%	566	151	0	0	0.0%	0.0%	338	62	0	0	0.0%	0.0%
05.00	2830	449	0	0	0.0%	0.0%	1199	213	0	0	0.0%	0.0%	687	98	0	0	0.0%	0.0%
06.00	4268	527	3	0	0.1%	0.0%	1804	269	3	0	0.2%	0.0%	1031	126	3	0	0.3%	0.0%
07.00	5707	549	164	15	2.9%	2.7%	2526	312	126	12	5.0%	3.7%	1411	140	26	11	1.8%	7.5%
08.00	5278	602	88	18	1.7%	3.0%	3240	318	30	18	0.9%	5.7%	1885	144	26	11	1.4%	7.3%
09.00	4374	627	49	14	1.1%	2.2%	3631	316	45	14	1.2%	4.3%	2784	192	32	9	1.1%	4.8%
10.00	4035	614	43	14	1.1%	2.2%	4151	308	48	14	1.1%	4.4%	3764	221	63	9	1.7%	4.2%
11.00	4028	598	43	14	1.1%	2.3%	4601	289	55	14	1.2%	4.8%	4302	249	70	9	1.6%	3.7%
12.00	4378	638	48	14	1.1%	2.1%	4825	266	67	17	1.4%	6.2%	4635	223	67	9	1.4%	4.2%
13.00	4543	660	49	11	1.1%	1.7%	4745	263	159	7	3.4%	2.7%	4402	234	60	7	1.4%	3.0%
14.00	4834	659	55	11	1.1%	1.7%	4370	257	59	7	1.3%	2.8%	4011	232	42	7	1.0%	3.1%
15.00	5340	641	68	15	1.3%	2.3%	4196	240	58	11	1.4%	4.4%	3831	222	52	11	1.4%	4.7%
16.00	6281	519	172	15	2.7%	2.9%	4375	224	50	11	1.1%	4.7%	4240	211	45	11	1.1%	5.0%
17.00	6679	425	76	15	1.1%	3.5%	4156	192	57	7	1.4%	3.7%	3860	198	38	7	1.0%	3.6%
18.00	4988	351	66	11	1.3%	3.3%	3665	172	49	7	1.3%	4.1%	3400	157	37	7	1.1%	4.5%
19.00	3247	272	12	9	0.4%	3.4%	2806	140	12	9	0.4%	6.6%	2808	141	12	9	0.4%	6.6%
20.00	2271	187	9	9	0.4%	5.0%	2029	102	9	9	0.5%	9.1%	2121	103	9	9	0.4%	9.0%
21.00	1668	132	11	11	0.6%	8.0%	1577	83	11	11	0.7%	12.7%	1505	88	11	11	0.7%	12.0%
22.00	1339	112	11	11	0.8%	9.4%	1568	63	11	11	0.7%	16.6%	970	62	11	11	1.1%	17.0%
23.00	800	108	0	0	0.0%	0.0%	1213	69	0	0	0.0%	0.0%	556	79	0	0	0.0%	0.0%
12 hr	60465	6882	921	166	1.5%	2.4%	48483	3159	804	137	1.7%	4.3%	42524	2424	557	107	1.3%	4.4%
24 hr	79526	9426	967	206	1.2%	2.2%	63245	4696	850	176	1.3%	3.8%	54612	3438	602	147	1.1%	4.3%

Link 7 - M2 East

2024 Baseline + K3 Operational + WKN Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.0%	0.0%	650	110	0	0	0.0%	0.0%	795	61	0	0	0.0%	0.0%
01.00	297	92	0	0	0.0%	0.0%	430	94	0	0	0.0%	0.0%	487	58	0	0	0.0%	0.0%
02.00	311	105	0	0	0.0%	0.0%	363	88	0	0	0.0%	0.0%	323	44	0	0	0.0%	0.0%
03.00	426	144	0	0	0.0%	0.0%	382	108	0	0	0.0%	0.0%	287	63	0	0	0.0%	0.0%
04.00	984	242	0	0	0.0%	0.0%	517	136	0	0	0.0%	0.0%	308	54	0	0	0.0%	0.0%
05.00	2575	395	0	0	0.0%	0.0%	1082	178	0	0	0.0%	0.0%	611	72	0	0	0.0%	0.0%
06.00	3882	453	1	0	0.0%	0.0%	1623	217	1	0	0.1%	0.0%	913	86	1	0	0.2%	0.0%
07.00	5181	471	66	4	1.3%	1.0%	2281	255	58	2	2.5%	0.8%	1256	98	6	1	0.5%	1.2%
08.00	4760	521	19	7	0.4%	1.3%	2932	262	9	7	0.3%	2.7%	1687	103	4	1	0.2%	1.1%
09.00	3956	539	11	4	0.3%	0.8%	3286	256	10	4	0.3%	1.7%	2510	142	5	1	0.2%	0.7%
10.00	3642	525	9	4	0.3%	0.8%	3759	246	10	4	0.3%	1.8%	3398	165	10	1	0.3%	0.6%
11.00	3638	512	10	4	0.3%	0.9%	4173	229	12	5	0.3%	2.0%	3893	192	12	1	0.3%	0.5%
12.00	3964	558	10	4	0.3%	0.8%	4385	219	15	7	0.4%	3.0%	4208	179	11	1	0.3%	0.6%
13.00	4105	569	11	4	0.3%	0.7%	4299	207	61	1	1.4%	0.4%	3983	180	10	1	0.3%	0.4%
14.00	4376	573	12	4	0.3%	0.7%	3960	206	10	1	0.2%	0.4%	3635	182	7	1	0.2%	0.4%
15.00	4836	552	14	4	0.3%	0.8%	3797	185	9	1	0.2%	0.6%	3464	169	8	1	0.2%	0.7%
16.00	5703	446	66	4	1.2%	1.0%	3971	177	9	1	0.2%	0.6%	3849	165	8	1	0.2%	0.7%
17.00	6058	361	18	7	0.3%	1.8%	3768	150	10	1	0.3%	0.5%	3501	155	7	1	0.2%	0.5%
18.00	4542	305	14	4	0.3%	1.4%	3333	142	8	1	0.3%	0.5%	3093	128	6	1	0.2%	0.6%
19.00	2953	228	3	1	0.1%	0.4%	2552	107	3	1	0.1%	0.9%	2553	108	3	1	0.1%	0.9%
20.00	2064	154	1	1	0.0%	0.7%	1844	76	1	1	0.1%	1.3%	1928	76	1	1	0.1%	1.3%
21.00	1516	108	1	1	0.1%	1.1%	1433	63	1	1	0.1%	1.8%	1367	68	1	1	0.1%	1.7%
22.00	1223	100	1	1	0.1%	1.1%	1436	55	1	1	0.1%	2.1%	887	54	1	1	0.1%	2.1%
23.00	731	96	0	0	0.0%	0.0%	1111	60	0	0	0.0%	0.0%	508	70	0	0	0.0%	0.0%
12 hr	54761	5931	260	57	0.5%	1.0%	43944	2534	222	34	0.5%	1.4%	38476	1859	94	12	0.2%	0.6%
24 hr	72110	8146	267	61	0.4%	0.8%	57367	3827	229	39	0.4%	1.0%	49443	2672	102	16	0.2%	0.6%

Link 8 - Swale Way north of Reams Way Junction

2024 Baseline + K3 Operational + WKN Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	644	51	0	0	0.0%	0.0%	240	19	0	0	0.0%	0.0%	129	12	0	0	0.0%	0.0%
07.00	1414	85	43	1	3.1%	1.0%	349	22	42	0	12.1%	0.0%	154	12	0	0	0.1%	0.0%
08.00	1499	83	2	2	0.1%	2.1%	450	30	2	2	0.4%	5.7%	153	14	0	0	0.0%	0.0%
09.00	950	99	1	1	0.1%	0.9%	571	31	1	1	0.1%	2.7%	322	13	0	0	0.0%	0.0%
10.00	839	106	2	2	0.2%	1.7%	704	34	2	2	0.3%	5.4%	437	18	0	0	0.0%	0.0%
11.00	830	100	2	2	0.2%	1.8%	770	23	3	3	0.4%	11.7%	529	24	0	0	0.0%	0.0%
12.00	932	102	1	1	0.1%	0.8%	732	25	1	1	0.1%	3.4%	556	19	0	0	0.0%	0.0%
13.00	900	93	1	1	0.1%	0.9%	692	33	42	0	6.1%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	1	1	0.1%	0.9%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1188	86	1	1	0.1%	1.0%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	43	1	3.0%	1.1%	553	20	0	0	0.0%	0.0%	539	17	0	0	0.0%	0.0%
17.00	1299	61	2	2	0.1%	2.8%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	1	1	0.1%	1.4%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	483	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	259	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.0%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13175	1052	99	14	0.7%	1.3%	7131	304	93	8	1.3%	2.6%	5243	184	0	0	0.0%	0.0%
24 hr	16116	1362	99	14	0.6%	1.0%	8933	431	93	8	1.0%	1.9%	6617	280	0	0	0.0%	0.0%

Link 9 - Swale Way south of Reams Way Junction

2024 Baseline + K3 Operational + WKN Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	656	57	0	0	0.0%	0.0%	273	20	0	0	0.0%	0.0%	133	13	0	0	0.0%	0.0%
07.00	1416	85	43	1	3.0%	1.0%	347	27	42	0	12.2%	0.0%	188	12	0	0	0.1%	0.0%
08.00	1432	94	2	2	0.1%	1.8%	484	26	2	2	0.4%	6.5%	155	7	0	0	0.0%	0.0%
09.00	917	105	1	1	0.1%	0.8%	575	35	1	1	0.1%	2.4%	324	15	0	0	0.0%	0.0%
10.00	828	107	2	2	0.2%	1.7%	716	25	2	2	0.3%	7.4%	474	15	0	0	0.0%	0.0%
11.00	850	108	2	2	0.2%	1.7%	775	35	3	3	0.3%	7.7%	506	17	0	0	0.0%	0.0%
12.00	917	98	1	1	0.1%	0.9%	749	34	1	1	0.1%	2.5%	522	15	0	0	0.0%	0.0%
13.00	950	92	1	1	0.1%	0.9%	622	32	42	0	6.8%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	1	1	0.1%	0.8%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	1	1	0.1%	0.9%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1433	82	43	1	3.0%	1.0%	547	19	0	0	0.0%	0.0%	440	14	0	0	0.0%	0.0%
17.00	1370	64	2	2	0.1%	2.7%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	1	1	0.1%	1.4%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	477	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.0%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13210	1093	99	14	0.7%	1.3%	6976	316	93	8	1.3%	2.5%	4860	194	0	0	0.0%	0.0%
24 hr	16134	1403	99	14	0.6%	1.0%	8849	425	93	8	1.0%	1.9%	6172	278	0	0	0.0%	0.0%

Link 10 - Swale Way south of Ridham Avenue Roundabout

2024 Baseline + K3 Operational + WKN Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	565	37	0	0	0.0%	0.0%	197	12	0	0	0.0%	0.0%	99	5	0	0	0.1%	0.0%
07.00	1313	67	43	1	3.3%	1.3%	319	16	42	0	13.3%	0.0%	138	5	0	0	0.1%	0.0%
08.00	1401	71	2	2	0.1%	2.4%	421	17	2	2	0.4%	9.9%	139	4	0	0	0.0%	0.0%
09.00	869	83	1	1	0.1%	1.0%	542	18	1	1	0.2%	4.7%	312	4	0	0	0.0%	0.0%
10.00	741	88	2	2	0.3%	2.1%	681	16	2	2	0.3%	11.4%	404	8	0	0	0.0%	0.0%
11.00	740	75	2	2	0.3%	2.5%	764	11	3	3	0.4%	24.0%	518	9	0	0	0.0%	0.0%
12.00	823	81	1	1	0.1%	1.1%	717	15	1	1	0.1%	5.6%	540	11	0	0	0.0%	0.0%
13.00	833	74	1	1	0.1%	1.2%	658	16	42	0	6.4%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	77	1	1	0.1%	1.1%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	1	1	0.1%	1.1%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	43	1	3.2%	1.3%	532	13	0	0	0.0%	0.0%	521	11	0	0	0.0%	0.0%
17.00	1242	56	2	2	0.1%	3.1%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	50	1	1	0.1%	1.7%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	431	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.0%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12154	863	99	14	0.8%	1.6%	6806	170	93	8	1.4%	4.7%	5023	84	0	0	0.0%	0.0%
24 hr	14591	1055	99	14	0.7%	1.3%	8379	245	93	8	1.1%	3.3%	6218	120	0	0	0.0%	0.0%

Link 11 - A249 North of Swale Way Junction

2024 Baseline + K3 Operational + WKN Operational + 2024 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact		2024 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.0%	0.0%	436	30	0	0	0.1%	0.0%
07.00	3012	191	45	0	1.5%	0.1%	1139	82	14	0	1.2%	0.2%	581	26	9	0	1.6%	0.0%
08.00	2710	235	65	0	2.4%	0.1%	1543	83	11	0	0.7%	0.2%	872	31	14	0	1.6%	0.0%
09.00	2053	238	34	0	1.6%	0.1%	1887	76	29	0	1.5%	0.2%	1368	48	21	0	1.5%	0.0%
10.00	1965	234	28	0	1.4%	0.1%	2223	85	32	0	1.4%	0.2%	2020	41	50	0	2.5%	0.0%
11.00	2067	230	29	0	1.4%	0.1%	2492	71	39	0	1.6%	0.3%	2331	38	57	0	2.4%	0.0%
12.00	2199	227	34	0	1.5%	0.1%	2640	63	49	0	1.8%	0.3%	2543	44	56	0	2.2%	0.0%
13.00	2235	222	36	0	1.6%	0.1%	2540	61	57	0	2.2%	0.0%	2417	47	52	0	2.2%	0.0%
14.00	2350	239	42	0	1.8%	0.1%	2406	57	50	0	2.1%	0.0%	2134	42	33	0	1.6%	0.0%
15.00	2574	205	52	0	2.0%	0.1%	2333	45	47	0	2.0%	0.0%	2049	45	41	0	2.0%	0.0%
16.00	3164	170	59	0	1.9%	0.1%	2290	49	37	0	1.6%	0.0%	2114	41	30	0	1.4%	0.0%
17.00	3303	126	59	0	1.8%	0.2%	2189	36	46	0	2.1%	0.0%	1964	39	27	0	1.4%	0.0%
18.00	2284	83	53	0	2.3%	0.2%	1847	36	41	0	2.2%	0.0%	1763	43	28	0	1.6%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	1	0	0.1%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	1	0	0.1%	0.0%	822	25	0	0	0.0%	0.0%	704	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.0%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.0%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29916	2398	535	2	1.8%	0.1%	25528	742	452	1	1.8%	0.2%	22156	485	421	0	1.9%	0.0%
24 hr	37860	3121	538	2	1.4%	0.1%	32342	1117	452	1	1.4%	0.1%	27697	709	421	0	1.5%	0.0%



**APPENDIX AE: 2031 BASELINE AND K3 OPERATIONAL  
PERCENTAGE IMPACT TABLE**

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**Link 1 - Swale Way East of B2005 Groveshurst Roundabout**

**2031 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	160	51	5	5	3.1%	9.7%	179	45	5	5	2.8%	10.9%	184	15	5	5	2.7%	32.9%
01.00	148	46	5	5	3.3%	10.8%	158	56	5	5	3.1%	8.9%	157	14	5	5	3.2%	35.3%
02.00	164	42	5	5	3.0%	11.8%	128	45	5	5	3.9%	10.9%	97	13	5	5	5.1%	38.1%
03.00	242	66	5	5	2.1%	7.5%	165	46	5	5	3.0%	10.7%	82	15	5	5	6.0%	32.9%
04.00	366	80	5	5	1.4%	6.2%	204	61	5	5	2.4%	8.2%	100	16	5	5	5.0%	30.9%
05.00	945	135	5	5	0.5%	3.7%	530	93	5	5	0.9%	5.3%	289	47	5	5	1.7%	10.6%
06.00	1116	189	9	5	0.8%	2.6%	517	134	9	5	1.8%	3.7%	247	75	9	5	3.7%	6.6%
07.00	1885	216	34	30	1.8%	13.8%	677	128	34	30	5.0%	23.2%	271	61	25	21	9.4%	34.8%
08.00	2193	206	41	30	1.9%	14.5%	705	110	42	30	5.9%	27.2%	286	57	33	21	11.6%	37.0%
09.00	1326	229	29	29	2.2%	12.6%	778	133	29	29	3.7%	21.8%	307	65	20	20	6.6%	31.0%
10.00	1207	251	29	29	2.4%	11.5%	886	133	29	29	3.3%	21.7%	326	74	20	20	6.2%	27.4%
11.00	1233	237	29	29	2.3%	12.2%	915	129	29	29	3.2%	22.4%	547	71	20	20	3.7%	28.4%
12.00	1352	222	29	29	2.1%	13.0%	937	105	29	29	3.1%	27.4%	847	55	20	20	2.4%	36.8%
13.00	1465	245	34	30	2.3%	12.0%	903	108	25	21	2.8%	19.3%	510	69	25	21	4.9%	30.3%
14.00	1446	237	34	30	2.3%	12.5%	882	105	25	21	2.9%	19.9%	523	64	25	21	4.8%	32.7%
15.00	1571	234	30	30	1.9%	12.8%	898	111	21	21	2.4%	19.1%	529	66	21	21	4.0%	32.2%
16.00	1700	190	30	30	1.7%	15.7%	805	96	21	21	2.6%	22.1%	647	53	21	21	3.3%	40.0%
17.00	1800	155	41	30	2.3%	19.1%	810	81	33	21	4.0%	25.8%	666	50	33	21	4.9%	41.8%
18.00	1202	129	17	17	1.4%	13.1%	690	72	8	8	1.2%	11.6%	451	41	8	8	1.8%	20.3%
19.00	729	97	8	8	1.0%	7.9%	550	68	8	8	1.4%	11.2%	516	51	8	8	1.5%	14.9%
20.00	544	93	8	8	1.4%	8.2%	401	69	8	8	1.9%	11.1%	364	44	8	8	2.1%	17.4%
21.00	384	68	13	9	3.3%	12.7%	313	49	13	9	4.1%	17.5%	221	33	13	9	5.8%	25.8%
22.00	300	49	13	9	4.3%	17.5%	276	25	13	9	4.6%	34.2%	305	10	13	9	4.2%	86.2%
23.00	198	46	5	5	2.5%	10.8%	204	29	5	5	2.4%	17.0%	197	10	5	5	2.5%	49.6%
12 hr	18381	2550	374	340	2.0%	13.3%	9886	1311	325	289	3.3%	22.0%	5909	727	273	237	4.6%	32.6%
24 hr	23678	3513	459	412	1.9%	11.7%	13512	2032	410	361	3.0%	17.8%	8667	1070	358	309	4.1%	28.9%

**Link 2 - Barge Way North of Swale Roundabout**

**2031 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	128	35	5	5	3.9%	14.1%	133	31	5	5	3.7%	15.9%	100	26	5	5	5.0%	18.9%
01.00	131	32	5	5	3.8%	15.6%	107	26	5	5	4.6%	18.9%	87	25	5	5	5.7%	19.7%
02.00	169	33	5	5	2.9%	15.0%	130	35	5	5	3.8%	14.1%	88	22	5	5	5.6%	22.4%
03.00	223	51	5	5	2.2%	9.6%	166	43	5	5	3.0%	11.4%	81	25	5	5	6.1%	19.7%
04.00	308	63	5	5	1.6%	7.9%	211	57	5	5	2.3%	8.8%	104	28	5	5	4.8%	17.6%
05.00	545	99	5	5	0.9%	5.0%	346	85	5	5	1.4%	5.8%	194	55	5	5	2.6%	9.1%
06.00	530	138	9	5	1.7%	3.6%	308	123	9	5	3.0%	4.0%	168	77	9	5	5.5%	6.4%
07.00	515	147	34	30	6.6%	20.5%	301	112	34	30	11.3%	26.9%	156	77	25	21	16.4%	27.6%
08.00	515	145	42	30	8.1%	20.9%	278	116	42	30	15.0%	26.1%	160	66	33	21	20.7%	32.0%
09.00	434	163	29	29	6.6%	17.9%	276	122	29	29	10.4%	24.0%	155	77	20	20	13.1%	26.2%
10.00	446	169	29	29	6.4%	17.3%	287	111	29	29	10.0%	26.3%	159	82	20	20	12.8%	24.8%
11.00	403	168	29	29	7.1%	17.4%	259	117	29	29	11.1%	25.0%	183	94	20	20	11.1%	21.4%
12.00	417	152	29	29	6.9%	19.3%	238	79	29	29	12.1%	36.9%	219	65	20	20	9.3%	31.2%
13.00	511	177	34	30	6.6%	16.9%	304	95	25	21	8.3%	22.0%	214	85	25	21	11.7%	24.6%
14.00	506	186	34	30	6.6%	16.1%	275	107	25	21	9.2%	19.5%	187	83	25	21	13.5%	25.2%
15.00	508	184	30	30	5.9%	16.4%	293	116	21	21	7.2%	18.2%	182	86	21	21	11.7%	24.7%
16.00	524	149	30	30	5.7%	20.3%	245	76	21	21	8.7%	27.9%	221	82	21	21	9.6%	25.8%
17.00	497	113	41	30	8.3%	26.5%	201	69	33	21	16.3%	30.3%	181	60	33	21	18.1%	34.9%
18.00	369	94	17	17	4.5%	18.3%	187	53	8	8	4.4%	15.7%	143	47	8	8	5.8%	17.8%
19.00	248	85	8	8	3.1%	9.0%	134	69	8	8	5.7%	11.0%	130	54	8	8	5.8%	14.1%
20.00	183	64	8	8	4.2%	11.8%	106	57	8	8	7.2%	13.4%	100	50	8	8	7.7%	15.3%
21.00	144	47	13	9	8.9%	18.4%	89	40	13	9	14.5%	21.4%	74	34	13	9	17.5%	25.2%
22.00	109	32	13	9	11.8%	26.9%	67	23	13	9	19.3%	37.2%	73	15	13	9	17.7%	57.2%
23.00	143	41	5	5	3.5%	12.1%	77	24	5	5	6.5%	20.5%	74	20	5	5	6.7%	24.7%
12 hr	5645	1845	375	345	6.6%	18.7%	3143	1174	324	291	10.3%	24.8%	2159	905	273	237	12.7%	26.2%
24 hr	8506	2566	460	417	5.4%	16.2%	5018	1788	409	363	8.2%	20.3%	3430	1337	358	309	10.4%	23.1%

**Link 3 - Barge Way East of Fleet End Roundabout**

**2031 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	18	5	5	12.5%	27.1%	90	14	5	5	5.5%	35.3%	14	10	5	5	35.3%	49.6%
01.00	38	17	5	5	12.9%	29.4%	34	17	5	5	14.5%	29.0%	11	10	5	5	45.1%	49.6%
02.00	57	20	5	5	8.7%	25.4%	35	25	5	5	14.1%	19.7%	13	10	5	5	38.1%	49.6%
03.00	71	21	5	5	7.0%	23.3%	19	12	5	5	26.0%	41.3%	11	10	5	5	45.1%	49.6%
04.00	111	27	5	5	4.5%	18.2%	38	20	5	5	12.9%	24.7%	20	10	5	5	24.7%	49.6%
05.00	226	36	5	5	2.2%	13.9%	97	17	5	5	5.1%	29.0%	55	11	5	5	9.0%	45.1%
06.00	275	54	9	5	3.4%	9.1%	109	39	9	5	8.4%	12.6%	55	13	9	5	16.8%	38.1%
07.00	301	65	34	30	11.4%	46.3%	125	35	34	30	27.5%	85.6%	64	13	25	21	39.6%	163.0%
08.00	292	73	42	30	14.4%	41.2%	125	39	42	30	33.6%	76.8%	80	10	33	21	41.6%	212.5%
09.00	224	76	29	29	13.1%	38.4%	118	39	29	29	24.8%	74.2%	58	10	20	20	34.9%	202.5%
10.00	213	78	29	29	13.7%	37.3%	106	34	29	29	27.5%	85.2%	59	10	20	20	34.5%	202.5%
11.00	188	75	29	29	15.6%	38.9%	91	20	29	29	31.9%	145.2%	52	12	20	20	39.0%	168.4%
12.00	221	76	29	29	13.2%	38.3%	84	15	29	29	34.9%	194.0%	59	11	20	20	34.1%	183.9%
13.00	256	78	34	30	13.3%	38.5%	111	14	25	21	22.7%	148.9%	92	10	25	21	27.5%	209.2%
14.00	234	88	34	30	14.6%	34.1%	88	13	25	21	28.5%	160.5%	71	10	25	21	35.4%	209.2%
15.00	211	85	30	30	14.3%	35.7%	80	17	21	21	26.7%	124.4%	61	11	21	21	34.6%	192.9%
16.00	243	63	30	30	12.4%	47.6%	87	14	21	21	24.5%	151.3%	81	13	21	21	26.4%	163.0%
17.00	271	43	42	30	15.4%	69.2%	86	11	33	21	38.2%	190.0%	95	10	33	21	34.5%	209.2%
18.00	147	30	17	17	11.8%	57.4%	62	12	8	8	13.4%	68.9%	59	11	8	8	14.1%	75.3%
19.00	88	28	8	8	8.6%	26.8%	47	10	8	8	16.3%	76.2%	50	10	8	8	15.3%	76.2%
20.00	77	27	8	8	9.8%	28.6%	29	12	8	8	25.9%	63.4%	28	10	8	8	26.8%	76.2%
21.00	67	19	13	9	19.1%	44.6%	27	10	13	9	47.3%	86.2%	26	12	13	9	49.1%	71.7%
22.00	41	21	13	9	31.5%	41.2%	12	10	13	9	106.9%	86.2%	19	11	13	9	67.3%	78.3%
23.00	40	17	5	5	12.4%	29.0%	11	10	5	5	45.1%	49.6%	17	11	5	5	29.0%	45.1%
12 hr	2801	831	381	345	13.6%	41.5%	1163	265	327	291	28.1%	109.9%	831	131	273	237	32.9%	180.8%
24 hr	3932	1136	466	417	11.8%	36.7%	1712	462	412	363	24.1%	78.6%	1150	259	358	309	31.2%	119.3%

**Link 4 - A249 South of Swale Way Junction**

**2031 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	235	62	5	5	2.1%	8.0%	393	63	5	5	1.3%	7.9%	453	40	5	5	1.1%	12.3%
01.00	169	53	5	5	2.9%	9.3%	262	58	5	5	1.9%	8.6%	291	33	5	5	1.7%	14.9%
02.00	167	60	5	5	3.0%	8.3%	222	68	5	5	2.2%	7.3%	204	37	5	5	2.4%	13.6%
03.00	237	78	5	5	2.1%	6.4%	223	68	5	5	2.2%	7.3%	171	39	5	5	2.9%	12.8%
04.00	548	139	5	5	0.9%	3.6%	305	76	5	5	1.6%	6.5%	196	40	5	5	2.5%	12.5%
05.00	1339	239	5	5	0.4%	2.1%	695	140	5	5	0.7%	3.5%	409	75	5	5	1.2%	6.6%
06.00	2212	303	9	5	0.4%	1.6%	1041	181	9	5	0.9%	2.7%	625	109	9	5	1.4%	4.5%
07.00	3124	339	34	29	1.1%	8.7%	1415	193	34	29	2.4%	15.3%	801	106	25	21	3.2%	20.0%
08.00	2874	343	41	29	1.4%	8.6%	1803	204	41	29	2.3%	14.4%	1107	106	33	21	2.9%	20.0%
09.00	2192	357	28	28	1.3%	8.0%	2048	223	28	28	1.4%	12.8%	1628	147	20	20	1.2%	13.8%
10.00	2101	378	28	28	1.4%	7.5%	2343	211	28	28	1.2%	13.5%	2090	164	20	20	1.0%	12.4%
11.00	2136	369	28	28	1.3%	7.7%	2486	206	28	28	1.1%	13.8%	2312	162	20	20	0.9%	12.5%
12.00	2296	362	28	28	1.2%	7.9%	2678	183	28	28	1.1%	15.6%	2172	135	20	20	0.9%	15.0%
13.00	2329	380	33	29	1.4%	7.7%	2619	189	25	21	1.0%	11.1%	2133	144	25	21	1.2%	14.6%
14.00	2571	381	33	29	1.3%	7.7%	2400	174	25	21	1.0%	12.0%	2151	145	25	21	1.2%	14.5%
15.00	2860	376	29	29	1.0%	7.8%	2354	178	21	21	0.9%	12.0%	2124	156	21	21	1.0%	13.6%
16.00	3385	312	29	29	0.9%	9.5%	2296	151	21	21	0.9%	14.0%	2234	150	21	21	1.0%	14.2%
17.00	3658	272	40	29	1.1%	10.7%	2331	142	32	21	1.4%	14.8%	1944	136	32	21	1.7%	15.4%
18.00	2762	243	17	17	0.6%	6.8%	2033	129	8	8	0.4%	6.4%	1858	124	8	8	0.4%	6.7%
19.00	1846	184	8	8	0.4%	4.1%	1596	118	8	8	0.5%	6.5%	1543	111	8	8	0.5%	6.9%
20.00	1272	137	8	8	0.6%	5.6%	1159	86	8	8	0.7%	8.8%	1274	95	8	8	0.6%	8.1%
21.00	947	104	13	9	1.3%	8.3%	964	66	13	9	1.3%	13.1%	926	78	13	9	1.4%	11.0%
22.00	726	69	13	9	1.7%	12.5%	852	44	13	9	1.5%	19.6%	545	40	13	9	2.3%	21.6%
23.00	435	58	5	5	1.1%	8.5%	659	45	5	5	0.8%	11.1%	331	42	5	5	1.5%	11.9%
12 hr	32289	4112	371	336	1.1%	8.2%	26806	2183	321	286	1.2%	13.1%	22554	1674	272	237	1.2%	14.2%
24 hr	42420	5597	455	408	1.1%	7.3%	35179	3194	406	359	1.2%	11.2%	29521	2413	356	309	1.2%	12.8%

**Link 5 - A249 between the A2 and M2**

**2031 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	333	86	5	5	1.5%	5.8%	559	88	5	5	0.9%	5.7%	644	55	5	5	0.8%	9.0%
01.00	238	74	5	5	2.1%	6.7%	372	80	5	5	1.3%	6.2%	414	45	5	5	1.2%	11.0%
02.00	236	82	5	5	2.1%	6.0%	315	94	5	5	1.6%	5.3%	290	50	5	5	1.7%	10.0%
03.00	334	108	5	5	1.5%	4.6%	317	95	5	5	1.6%	5.2%	242	53	5	5	2.1%	9.3%
04.00	777	194	5	5	0.6%	2.6%	433	106	5	5	1.1%	4.7%	277	54	5	5	1.8%	9.2%
05.00	1873	323	5	5	0.3%	1.5%	971	185	5	5	0.5%	2.7%	562	92	5	5	0.9%	5.4%
06.00	3105	401	9	5	0.3%	1.2%	1451	232	9	5	0.6%	2.1%	854	129	9	5	1.0%	3.9%
07.00	4370	438	34	30	0.8%	6.9%	1968	243	34	30	1.7%	12.4%	1109	129	25	21	2.3%	16.5%
08.00	3947	444	41	30	1.0%	6.8%	2523	261	41	30	1.6%	11.6%	1544	130	32	21	2.1%	16.3%
09.00	3046	460	29	29	1.0%	6.4%	2898	283	29	29	1.0%	10.3%	2301	184	20	20	0.9%	11.0%
10.00	2911	487	29	29	1.0%	6.0%	3318	265	29	29	0.9%	11.0%	2988	206	20	20	0.7%	9.8%
11.00	2965	476	29	29	1.0%	6.1%	3536	258	29	29	0.8%	11.3%	3319	205	20	20	0.6%	9.9%
12.00	3193	475	29	29	0.9%	6.2%	3827	233	29	29	0.8%	12.5%	3125	174	20	20	0.6%	11.6%
13.00	3233	492	34	30	1.0%	6.1%	3719	234	25	21	0.7%	9.0%	3043	179	25	21	0.8%	11.7%
14.00	3573	498	34	30	0.9%	6.0%	3422	217	25	21	0.7%	9.6%	3060	184	25	21	0.8%	11.3%
15.00	4005	486	30	30	0.8%	6.2%	3349	218	21	21	0.6%	9.8%	3027	197	21	21	0.7%	10.8%
16.00	4747	401	30	30	0.6%	7.5%	3261	186	21	21	0.7%	11.4%	3177	193	21	21	0.7%	11.0%
17.00	5113	345	41	30	0.8%	8.6%	3322	173	32	21	1.0%	12.1%	2762	175	32	21	1.1%	12.0%
18.00	3899	310	17	17	0.4%	5.6%	2904	159	8	8	0.3%	5.2%	2653	161	8	8	0.3%	5.2%
19.00	2591	239	8	8	0.3%	3.2%	2248	148	8	8	0.3%	5.1%	2172	138	8	8	0.4%	5.5%
20.00	1785	175	8	8	0.4%	4.3%	1634	107	8	8	0.5%	7.1%	1798	118	8	8	0.4%	6.4%
21.00	1328	133	12	9	0.9%	6.5%	1361	82	12	9	0.9%	10.4%	1306	100	12	9	1.0%	8.6%
22.00	1021	95	12	9	1.2%	9.1%	1216	60	12	9	1.0%	14.3%	777	55	12	9	1.6%	15.8%
23.00	616	81	5	5	0.8%	6.2%	940	61	5	5	0.5%	8.1%	470	57	5	5	1.1%	8.7%
12 hr	45002	5311	378	345	0.8%	6.5%	38048	2731	324	291	0.9%	10.6%	32108	2118	270	237	0.8%	11.2%
24 hr	59239	7303	462	417	0.8%	5.7%	49865	4070	408	363	0.8%	8.9%	41914	3063	354	309	0.8%	10.1%

Link 6 - M2 West

2031 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	425	108	3	3	0.7%	2.8%	708	120	3	3	0.4%	2.6%	866	66	3	3	0.4%	4.6%
01.00	323	100	3	3	0.9%	3.1%	469	103	3	3	0.7%	3.0%	530	63	3	3	0.6%	4.9%
02.00	338	114	3	3	0.9%	2.7%	395	96	3	3	0.8%	3.2%	351	48	3	3	0.9%	6.4%
03.00	464	157	3	3	0.7%	1.9%	416	117	3	3	0.7%	2.6%	312	68	3	3	1.0%	4.5%
04.00	1072	263	3	3	0.3%	1.2%	563	148	3	3	0.5%	2.1%	335	59	3	3	0.9%	5.2%
05.00	2827	446	3	3	0.1%	0.7%	1196	210	3	3	0.3%	1.5%	684	95	3	3	0.4%	3.2%
06.00	4264	524	4	3	0.1%	0.6%	1800	266	4	3	0.2%	1.2%	1026	123	4	3	0.4%	2.5%
07.00	5694	537	16	15	0.3%	2.7%	2513	300	16	15	0.6%	4.9%	1399	130	14	13	1.0%	10.1%
08.00	5262	589	18	15	0.3%	2.5%	3224	306	18	15	0.6%	4.8%	1870	133	16	13	0.9%	9.8%
09.00	4362	615	14	14	0.3%	2.3%	3619	304	14	14	0.4%	4.6%	2773	181	12	12	0.5%	6.9%
10.00	4023	602	14	14	0.3%	2.3%	4139	296	14	14	0.3%	4.7%	3753	210	12	12	0.3%	6.0%
11.00	4016	586	14	14	0.3%	2.4%	4589	276	14	14	0.3%	5.1%	4291	238	12	12	0.3%	5.3%
12.00	4365	626	14	14	0.3%	2.2%	4813	254	14	14	0.3%	5.5%	4624	212	12	12	0.3%	5.9%
13.00	4530	648	16	14	0.3%	2.2%	4733	252	14	13	0.3%	5.1%	4390	223	14	13	0.3%	5.8%
14.00	4821	647	16	14	0.3%	2.2%	4358	246	14	13	0.3%	5.2%	3999	221	14	13	0.4%	5.8%
15.00	5328	629	15	15	0.3%	2.3%	4185	229	13	13	0.3%	5.7%	3820	211	13	13	0.3%	6.2%
16.00	6269	506	15	15	0.2%	2.9%	4365	213	13	13	0.3%	6.1%	4229	200	13	13	0.3%	6.5%
17.00	6664	412	18	14	0.3%	3.5%	4142	182	16	13	0.4%	7.1%	3845	188	16	13	0.4%	6.9%
18.00	4984	347	7	7	0.1%	1.9%	3662	169	5	5	0.1%	3.0%	3397	154	5	5	0.2%	3.3%
19.00	3244	269	5	5	0.1%	1.7%	2803	137	5	5	0.2%	3.4%	2805	138	5	5	0.2%	3.4%
20.00	2268	184	5	5	0.2%	2.6%	2026	99	5	5	0.2%	4.8%	2118	100	5	5	0.2%	4.7%
21.00	1664	129	6	5	0.4%	4.1%	1572	80	6	5	0.4%	6.7%	1500	85	6	5	0.4%	6.3%
22.00	1335	109	6	5	0.5%	4.9%	1564	60	6	5	0.4%	8.8%	965	59	6	5	0.7%	9.1%
23.00	796	105	3	3	0.4%	2.9%	1210	66	3	3	0.3%	4.7%	553	76	3	3	0.6%	4.0%
12 hr	60318	6744	174	164	0.3%	2.4%	48343	3029	165	155	0.3%	5.1%	42392	2301	156	146	0.4%	6.4%
24 hr	79338	9252	222	209	0.3%	2.3%	63065	4530	213	200	0.3%	4.4%	54439	3279	204	191	0.4%	5.8%

Link 7 - M2 East

2031 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.1%	0.3%	649	110	0	0	0.1%	0.3%	795	60	0	0	0.0%	0.6%
01.00	296	92	0	0	0.1%	0.4%	430	94	0	0	0.1%	0.4%	487	57	0	0	0.1%	0.6%
02.00	310	104	0	0	0.1%	0.3%	363	88	0	0	0.1%	0.4%	322	44	0	0	0.1%	0.8%
03.00	425	144	0	0	0.1%	0.2%	382	107	0	0	0.1%	0.3%	287	62	0	0	0.1%	0.5%
04.00	983	241	0	0	0.0%	0.1%	516	136	0	0	0.1%	0.2%	307	53	0	0	0.1%	0.6%
05.00	2574	394	0	0	0.0%	0.1%	1081	177	0	0	0.0%	0.2%	611	72	0	0	0.1%	0.5%
06.00	3881	453	1	0	0.0%	0.1%	1623	217	1	0	0.1%	0.2%	912	85	1	0	0.1%	0.4%
07.00	5178	469	3	3	0.1%	0.5%	2279	253	3	3	0.1%	1.0%	1254	97	2	1	0.2%	1.5%
08.00	4756	519	4	3	0.1%	0.5%	2929	260	4	3	0.1%	1.0%	1685	102	3	1	0.2%	1.4%
09.00	3954	537	2	2	0.1%	0.5%	3284	254	2	2	0.1%	1.0%	2509	141	1	1	0.1%	1.0%
10.00	3640	523	2	2	0.1%	0.5%	3757	244	2	2	0.1%	1.0%	3397	164	1	1	0.0%	0.8%
11.00	3636	509	2	2	0.1%	0.5%	4170	227	2	2	0.1%	1.1%	3891	191	1	1	0.0%	0.7%
12.00	3962	556	2	2	0.1%	0.4%	4383	217	2	2	0.1%	1.1%	4207	178	1	1	0.0%	0.8%
13.00	4103	567	3	3	0.1%	0.4%	4297	205	2	1	0.0%	0.7%	3981	179	2	1	0.0%	0.8%
14.00	4373	571	3	3	0.1%	0.4%	3959	204	2	1	0.0%	0.7%	3634	181	2	1	0.1%	0.8%
15.00	4834	550	3	3	0.1%	0.5%	3796	184	1	1	0.0%	0.8%	3462	168	1	1	0.0%	0.8%
16.00	5701	444	3	3	0.0%	0.6%	3970	176	1	1	0.0%	0.8%	3847	164	1	1	0.0%	0.9%
17.00	6054	359	4	3	0.1%	0.7%	3765	148	3	1	0.1%	0.9%	3498	154	3	1	0.1%	0.9%
18.00	4541	303	2	2	0.0%	0.6%	3333	142	1	1	0.0%	0.4%	3092	128	1	1	0.0%	0.4%
19.00	2953	228	1	1	0.0%	0.2%	2551	107	1	1	0.0%	0.5%	2553	108	1	1	0.0%	0.5%
20.00	2064	153	1	1	0.0%	0.3%	1844	75	1	1	0.0%	0.7%	1928	76	1	1	0.0%	0.7%
21.00	1515	108	1	1	0.1%	0.5%	1432	63	1	1	0.1%	0.9%	1366	68	1	1	0.1%	0.9%
22.00	1222	100	1	1	0.1%	0.6%	1435	55	1	1	0.1%	1.0%	886	54	1	1	0.1%	1.1%
23.00	730	96	0	0	0.0%	0.3%	1111	60	0	0	0.0%	0.6%	507	69	0	0	0.1%	0.5%
12 hr	54731	5906	34	29	0.1%	0.5%	43920	2515	28	23	0.1%	0.9%	38458	1846	21	16	0.1%	0.9%
24 hr	72075	8117	41	34	0.1%	0.4%	57338	3804	34	27	0.1%	0.7%	49419	2655	27	21	0.1%	0.8%



**Link 8 - Swale Way north of Reams Way Junction**

**2031 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	644	51	0	0	0.0%	0.0%	240	19	0	0	0.0%	0.0%	129	12	0	0	0.0%	0.0%
07.00	1413	84	0	0	0.0%	0.4%	348	22	0	0	0.1%	1.4%	154	12	0	0	0.0%	0.0%
08.00	1498	83	0	0	0.0%	0.4%	450	30	0	0	0.1%	1.1%	153	14	0	0	0.0%	0.0%
09.00	949	98	0	0	0.0%	0.3%	570	31	0	0	0.1%	1.0%	322	13	0	0	0.0%	0.0%
10.00	839	106	0	0	0.0%	0.3%	704	34	0	0	0.0%	0.9%	437	18	0	0	0.0%	0.0%
11.00	830	100	0	0	0.0%	0.3%	770	23	0	0	0.0%	1.4%	529	24	0	0	0.0%	0.0%
12.00	931	102	0	0	0.0%	0.3%	732	25	0	0	0.0%	1.3%	556	19	0	0	0.0%	0.0%
13.00	900	93	0	0	0.0%	0.3%	692	33	0	0	0.0%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	0	0	0.0%	0.3%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1187	86	0	0	0.0%	0.4%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	0	0	0.0%	0.4%	553	20	0	0	0.0%	0.0%	539	17	0	0	0.0%	0.0%
17.00	1298	61	0	0	0.0%	0.5%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	0	0	0.0%	0.5%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	483	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	258	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.1%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13171	1048	4	4	0.0%	0.4%	7129	303	2	2	0.0%	0.6%	5243	184	0	0	0.0%	0.0%
24 hr	16112	1358	4	4	0.0%	0.3%	8930	429	2	2	0.0%	0.4%	6616	280	0	0	0.0%	0.0%

**Link 9 - Swale Way south of Reams Way Junction**

**2031 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	656	57	0	0	0.0%	0.0%	273	20	0	0	0.0%	0.0%	133	13	0	0	0.0%	0.0%
07.00	1416	85	0	0	0.0%	0.4%	346	27	0	0	0.1%	1.2%	188	12	0	0	0.0%	0.0%
08.00	1431	93	0	0	0.0%	0.3%	484	26	0	0	0.1%	1.2%	155	7	0	0	0.0%	0.0%
09.00	917	105	0	0	0.0%	0.3%	574	35	0	0	0.1%	0.9%	324	15	0	0	0.0%	0.0%
10.00	828	107	0	0	0.0%	0.3%	716	25	0	0	0.0%	1.3%	474	15	0	0	0.0%	0.0%
11.00	850	108	0	0	0.0%	0.3%	775	35	0	0	0.0%	0.9%	506	17	0	0	0.0%	0.0%
12.00	917	98	0	0	0.0%	0.3%	749	34	0	0	0.0%	0.9%	522	15	0	0	0.0%	0.0%
13.00	949	92	0	0	0.0%	0.3%	622	32	0	0	0.0%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	0	0	0.0%	0.3%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	0	0	0.0%	0.3%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1432	81	0	0	0.0%	0.4%	547	19	0	0	0.0%	0.0%	440	14	0	0	0.0%	0.0%
17.00	1369	64	0	0	0.0%	0.5%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	0	0	0.0%	0.5%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	477	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.1%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13206	1090	4	4	0.0%	0.3%	6974	315	2	2	0.0%	0.6%	4860	194	0	0	0.0%	0.0%
24 hr	16130	1399	4	4	0.0%	0.3%	8846	423	2	2	0.0%	0.4%	6171	278	0	0	0.0%	0.0%

**Link 10 - Swale Way south of Ridham Avenue Roundabout**

**2031 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	565	37	0	0	0.0%	0.0%	197	12	0	0	0.0%	0.0%	99	5	0	0	0.0%	0.0%
07.00	1312	66	0	0	0.0%	0.5%	319	16	0	0	0.1%	2.0%	138	5	0	0	0.0%	0.0%
08.00	1401	70	0	0	0.0%	0.4%	421	17	0	0	0.1%	1.9%	139	4	0	0	0.0%	0.0%
09.00	869	82	0	0	0.0%	0.4%	541	18	0	0	0.1%	1.8%	312	4	0	0	0.0%	0.0%
10.00	741	87	0	0	0.0%	0.4%	681	16	0	0	0.0%	2.0%	404	8	0	0	0.0%	0.0%
11.00	739	75	0	0	0.0%	0.4%	763	11	0	0	0.0%	2.9%	518	9	0	0	0.0%	0.0%
12.00	822	81	0	0	0.0%	0.4%	717	15	0	0	0.0%	2.1%	540	11	0	0	0.0%	0.0%
13.00	833	73	0	0	0.0%	0.4%	658	16	0	0	0.0%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	76	0	0	0.0%	0.4%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	0	0	0.0%	0.4%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	0	0	0.0%	0.5%	532	13	0	0	0.0%	0.0%	521	11	0	0	0.0%	0.0%
17.00	1242	55	0	0	0.0%	0.6%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	49	0	0	0.0%	0.6%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	431	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.1%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12150	859	4	4	0.0%	0.4%	6804	168	2	2	0.0%	1.1%	5023	84	0	0	0.0%	0.0%
24 hr	14587	1052	4	4	0.0%	0.4%	8376	243	2	2	0.0%	0.8%	6217	120	0	0	0.0%	0.0%

**Link 11 - A249 North of Swale Way Junction**

**2031 Baseline + K3 Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.0%	0.0%	436	30	0	0	0.0%	0.0%
07.00	3011	190	0	0	0.0%	0.1%	1138	81	0	0	0.0%	0.3%	581	26	0	0	0.0%	0.0%
08.00	2710	235	1	0	0.0%	0.1%	1542	83	1	0	0.0%	0.3%	871	31	0	0	0.0%	0.0%
09.00	2053	237	0	0	0.0%	0.1%	1887	76	0	0	0.0%	0.3%	1368	48	0	0	0.0%	0.0%
10.00	1965	234	0	0	0.0%	0.1%	2223	85	0	0	0.0%	0.3%	2020	41	0	0	0.0%	0.0%
11.00	2067	230	0	0	0.0%	0.1%	2492	70	0	0	0.0%	0.4%	2331	38	0	0	0.0%	0.0%
12.00	2199	227	0	0	0.0%	0.1%	2640	62	0	0	0.0%	0.4%	2543	44	0	0	0.0%	0.0%
13.00	2234	221	1	0	0.0%	0.1%	2539	61	0	0	0.0%	0.0%	2416	47	0	0	0.0%	0.0%
14.00	2349	239	1	0	0.0%	0.1%	2405	57	0	0	0.0%	0.0%	2133	42	0	0	0.0%	0.0%
15.00	2574	205	0	0	0.0%	0.1%	2333	45	0	0	0.0%	0.0%	2049	45	0	0	0.0%	0.0%
16.00	3163	169	0	0	0.0%	0.1%	2290	49	0	0	0.0%	0.0%	2114	41	0	0	0.0%	0.0%
17.00	3303	126	1	0	0.0%	0.2%	2188	36	0	0	0.0%	0.0%	1964	39	0	0	0.0%	0.0%
18.00	2284	83	0	0	0.0%	0.3%	1847	36	0	0	0.0%	0.0%	1763	43	0	0	0.0%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	0	0	0.0%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	0	0	0.0%	0.0%	822	25	0	0	0.0%	0.0%	703	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.1%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.1%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29912	2396	4	3	0.0%	0.1%	25525	741	3	1	0.0%	0.2%	22154	485	1	0	0.0%	0.0%
24 hr	37856	3118	5	3	0.0%	0.1%	32339	1116	4	1	0.0%	0.1%	27695	709	2	0	0.0%	0.0%

**Link 1 - Swale Way East of B2005 Groveshurst Roundabout**

**2031 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	165	56	0	0	0.0%	0.0%	184	50	0	0	0.0%	0.0%	189	20	0	0	0.0%	0.0%
01.00	153	51	0	0	0.0%	0.0%	163	60	0	0	0.0%	0.0%	162	19	0	0	0.0%	0.0%
02.00	169	47	0	0	0.0%	0.0%	133	50	0	0	0.0%	0.0%	102	18	0	0	0.0%	0.0%
03.00	247	71	0	0	0.0%	0.0%	170	51	0	0	0.0%	0.0%	87	20	0	0	0.0%	0.0%
04.00	371	85	0	0	0.0%	0.0%	209	66	0	0	0.0%	0.0%	105	21	0	0	0.0%	0.0%
05.00	950	140	0	0	0.0%	0.0%	535	98	0	0	0.0%	0.0%	294	52	0	0	0.0%	0.0%
06.00	1125	194	0	0	0.0%	0.0%	527	139	0	0	0.0%	0.0%	256	80	0	0	0.0%	0.0%
07.00	1914	241	5	5	0.3%	2.1%	706	153	5	5	0.7%	3.3%	293	79	4	4	1.2%	4.6%
08.00	2229	231	5	5	0.2%	2.2%	741	134	5	5	0.7%	3.8%	315	75	4	4	1.2%	4.9%
09.00	1350	254	4	4	0.3%	1.6%	803	157	4	4	0.5%	2.6%	325	83	3	3	0.8%	3.2%
10.00	1232	275	4	4	0.3%	1.5%	911	158	4	4	0.4%	2.6%	344	91	3	3	0.8%	2.9%
11.00	1258	262	4	4	0.3%	1.6%	940	153	4	4	0.4%	2.7%	564	89	3	3	0.5%	3.0%
12.00	1377	247	4	4	0.3%	1.7%	962	130	4	4	0.4%	3.1%	864	73	3	3	0.3%	3.7%
13.00	1494	270	5	5	0.3%	1.8%	924	126	3	3	0.4%	2.6%	532	87	3	3	0.6%	3.8%
14.00	1475	262	5	5	0.3%	1.8%	904	123	3	3	0.4%	2.7%	545	81	3	3	0.6%	4.1%
15.00	1596	258	5	5	0.3%	2.0%	916	129	4	4	0.4%	2.8%	546	84	4	4	0.7%	4.4%
16.00	1725	215	5	5	0.3%	2.4%	823	114	4	4	0.4%	3.2%	665	71	4	4	0.5%	5.2%
17.00	1837	179	5	5	0.3%	2.6%	839	99	3	3	0.4%	3.4%	695	68	3	3	0.5%	4.9%
18.00	1214	141	5	5	0.4%	3.4%	695	77	3	3	0.5%	4.3%	456	46	3	3	0.7%	7.3%
19.00	734	102	3	3	0.4%	2.6%	555	73	3	3	0.5%	3.6%	521	56	3	3	0.5%	4.7%
20.00	549	98	3	3	0.5%	2.7%	406	74	3	3	0.7%	3.6%	369	49	3	3	0.7%	5.4%
21.00	394	73	4	4	0.9%	5.0%	322	54	4	4	1.1%	6.7%	231	38	4	4	1.6%	9.5%
22.00	309	54	4	4	1.2%	6.8%	285	30	4	4	1.3%	12.1%	314	15	4	4	1.2%	24.4%
23.00	203	51	0	0	0.0%	0.0%	209	34	0	0	0.0%	0.0%	202	15	0	0	0.0%	0.0%
12 hr	18700	2835	56	56	0.3%	2.0%	10164	1552	47	47	0.5%	3.0%	6144	925	39	39	0.6%	4.2%
24 hr	24069	3857	68	68	0.3%	1.8%	13862	2333	60	60	0.4%	2.6%	8974	1328	51	51	0.6%	3.9%

**Link 2 - Barge Way North of Swale Roundabout**

**2031 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	133	40	0	0	0.0%	0.0%	138	36	0	0	0.0%	0.0%	105	31	0	0	0.0%	0.0%
01.00	136	37	0	0	0.0%	0.0%	112	31	0	0	0.0%	0.0%	92	30	0	0	0.0%	0.0%
02.00	174	38	0	0	0.0%	0.0%	135	40	0	0	0.0%	0.0%	93	27	0	0	0.0%	0.0%
03.00	228	56	0	0	0.0%	0.0%	171	48	0	0	0.0%	0.0%	86	30	0	0	0.0%	0.0%
04.00	313	68	0	0	0.0%	0.0%	216	62	0	0	0.0%	0.0%	109	33	0	0	0.0%	0.0%
05.00	550	104	0	0	0.0%	0.0%	351	90	0	0	0.0%	0.0%	199	60	0	0	0.0%	0.0%
06.00	539	143	0	0	0.0%	0.0%	318	128	0	0	0.0%	0.0%	177	82	0	0	0.0%	0.0%
07.00	544	172	5	5	0.9%	3.0%	330	138	5	5	1.5%	3.7%	178	95	4	4	2.1%	3.9%
08.00	551	170	5	5	0.9%	3.0%	314	141	5	5	1.6%	3.6%	190	84	4	4	1.9%	4.4%
09.00	459	188	4	4	0.9%	2.2%	301	147	4	4	1.4%	2.8%	172	95	3	3	1.5%	2.8%
10.00	470	194	4	4	0.9%	2.1%	312	136	4	4	1.3%	3.0%	176	99	3	3	1.5%	2.7%
11.00	427	193	4	4	1.0%	2.1%	283	142	4	4	1.5%	2.9%	201	112	3	3	1.3%	2.4%
12.00	441	177	4	4	0.9%	2.3%	262	104	4	4	1.6%	4.0%	236	83	3	3	1.1%	3.2%
13.00	540	202	5	5	0.9%	2.4%	326	113	3	3	1.0%	2.9%	236	103	3	3	1.4%	3.2%
14.00	535	211	5	5	0.9%	2.3%	296	125	3	3	1.1%	2.7%	208	101	3	3	1.6%	3.3%
15.00	532	209	5	5	1.0%	2.4%	311	134	4	4	1.2%	2.7%	200	104	4	4	1.8%	3.5%
16.00	549	174	5	5	0.9%	2.9%	263	94	4	4	1.4%	3.9%	238	100	4	4	1.5%	3.7%
17.00	534	138	5	5	0.9%	3.5%	230	87	3	3	1.4%	3.8%	211	78	3	3	1.6%	4.3%
18.00	381	107	5	5	1.3%	4.5%	192	58	3	3	1.7%	5.8%	148	52	3	3	2.2%	6.4%
19.00	253	90	3	3	1.0%	2.9%	139	74	3	3	1.9%	3.6%	135	59	3	3	2.0%	4.5%
20.00	188	69	3	3	1.4%	3.8%	111	62	3	3	2.4%	4.3%	104	55	3	3	2.5%	4.9%
21.00	154	52	4	4	2.4%	7.1%	98	45	4	4	3.7%	8.1%	83	39	4	4	4.4%	9.3%
22.00	118	37	4	4	3.1%	9.9%	76	28	4	4	4.8%	13.0%	82	20	4	4	4.5%	18.3%
23.00	148	46	0	0	0.0%	0.0%	82	29	0	0	0.0%	0.0%	79	25	0	0	0.0%	0.0%
12 hr	5964	2134	56	56	0.9%	2.6%	3420	1417	47	47	1.4%	3.3%	2394	1103	39	39	1.6%	3.5%
24 hr	8898	2914	69	69	0.8%	2.4%	5367	2091	60	60	1.1%	2.9%	3737	1595	51	51	1.4%	3.2%

**Link 3 - Barge Way East of Fleet End Roundabout**

**2031 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	45	23	0	0	0.0%	0.0%	95	19	0	0	0.0%	0.0%	19	15	0	0	0.0%	0.0%
01.00	43	22	0	0	0.0%	0.0%	39	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
02.00	62	24	0	0	0.0%	0.0%	40	30	0	0	0.0%	0.0%	18	15	0	0	0.0%	0.0%
03.00	75	26	0	0	0.0%	0.0%	24	17	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
04.00	116	32	0	0	0.0%	0.0%	43	25	0	0	0.0%	0.0%	25	15	0	0	0.0%	0.0%
05.00	231	41	0	0	0.0%	0.0%	102	22	0	0	0.0%	0.0%	60	16	0	0	0.0%	0.0%
06.00	284	59	0	0	0.0%	0.0%	119	44	0	0	0.0%	0.0%	64	18	0	0	0.0%	0.0%
07.00	330	90	5	5	1.5%	5.7%	154	60	5	5	3.3%	8.5%	86	31	4	4	4.2%	11.9%
08.00	329	98	5	5	1.6%	5.2%	162	64	5	5	3.2%	7.9%	109	28	4	4	3.3%	13.2%
09.00	249	101	4	4	1.7%	4.1%	143	64	4	4	2.9%	6.4%	76	28	3	3	3.5%	9.6%
10.00	238	103	4	4	1.7%	4.0%	131	59	4	4	3.1%	6.9%	76	28	3	3	3.5%	9.6%
11.00	213	100	4	4	1.9%	4.1%	117	45	4	4	3.5%	9.1%	70	30	3	3	3.8%	9.0%
12.00	247	101	4	4	1.7%	4.1%	109	40	4	4	3.8%	10.3%	77	29	3	3	3.4%	9.3%
13.00	286	103	5	5	1.7%	4.7%	133	32	3	3	2.5%	10.5%	113	28	3	3	2.9%	12.1%
14.00	263	113	5	5	1.8%	4.2%	110	31	3	3	3.0%	10.9%	93	28	3	3	3.6%	12.1%
15.00	236	110	5	5	2.2%	4.7%	97	35	4	4	3.8%	10.5%	79	29	4	4	4.6%	12.8%
16.00	268	89	5	5	1.9%	5.8%	104	32	4	4	3.5%	11.6%	98	31	4	4	3.7%	11.9%
17.00	308	68	5	5	1.6%	7.0%	115	29	3	3	2.9%	11.6%	124	28	3	3	2.7%	12.1%
18.00	159	42	5	5	3.0%	11.3%	67	17	3	3	5.0%	19.6%	64	16	3	3	5.2%	20.8%
19.00	93	33	3	3	2.8%	8.0%	52	15	3	3	5.1%	17.7%	55	15	3	3	4.9%	17.7%
20.00	82	32	3	3	3.2%	8.4%	34	17	3	3	7.7%	15.6%	33	15	3	3	8.0%	17.7%
21.00	77	24	4	4	4.8%	15.1%	36	15	4	4	10.0%	24.4%	35	17	4	4	10.3%	21.5%
22.00	50	26	4	4	7.3%	14.1%	21	15	4	4	17.2%	24.4%	28	16	4	4	12.9%	22.9%
23.00	45	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%	22	16	0	0	0.0%	0.0%
12 hr	3126	1119	56	56	1.8%	5.0%	1443	508	47	47	3.3%	9.3%	1066	330	39	39	3.6%	11.7%
24 hr	4329	1484	69	69	1.6%	4.6%	2064	765	60	60	2.9%	7.8%	1458	517	51	51	3.5%	9.9%

**Link 4 - A249 South of Swale Way Junction**

**2031 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	240	67	0	0	0.0%	0.0%	398	68	0	0	0.0%	0.0%	458	45	0	0	0.0%	0.0%
01.00	174	58	0	0	0.0%	0.0%	267	63	0	0	0.0%	0.0%	296	38	0	0	0.0%	0.0%
02.00	172	65	0	0	0.0%	0.0%	227	73	0	0	0.0%	0.0%	209	42	0	0	0.0%	0.0%
03.00	242	83	0	0	0.0%	0.0%	228	73	0	0	0.0%	0.0%	176	44	0	0	0.0%	0.0%
04.00	553	144	0	0	0.0%	0.0%	310	81	0	0	0.0%	0.0%	201	45	0	0	0.0%	0.0%
05.00	1343	244	0	0	0.0%	0.0%	700	145	0	0	0.0%	0.0%	414	80	0	0	0.0%	0.0%
06.00	2221	308	0	0	0.0%	0.0%	1050	186	0	0	0.0%	0.0%	634	114	0	0	0.0%	0.0%
07.00	3153	363	5	5	0.2%	1.4%	1443	217	5	5	0.3%	2.3%	822	124	4	4	0.4%	3.0%
08.00	2910	368	5	5	0.2%	1.4%	1839	229	5	5	0.3%	2.2%	1136	124	4	4	0.3%	3.0%
09.00	2217	381	4	4	0.2%	1.1%	2072	247	4	4	0.2%	1.6%	1645	165	3	3	0.2%	1.6%
10.00	2126	403	4	4	0.2%	1.0%	2367	236	4	4	0.2%	1.7%	2107	181	3	3	0.1%	1.5%
11.00	2160	393	4	4	0.2%	1.0%	2511	231	4	4	0.2%	1.8%	2330	180	3	3	0.1%	1.5%
12.00	2321	387	4	4	0.2%	1.0%	2703	207	4	4	0.1%	1.9%	2190	152	3	3	0.1%	1.7%
13.00	2358	404	5	5	0.2%	1.2%	2640	206	3	3	0.1%	1.6%	2154	161	3	3	0.2%	2.1%
14.00	2600	405	5	5	0.2%	1.2%	2422	192	3	3	0.1%	1.7%	2173	162	3	3	0.2%	2.0%
15.00	2884	400	5	5	0.2%	1.3%	2372	195	4	4	0.2%	1.9%	2142	174	4	4	0.2%	2.1%
16.00	3409	336	5	5	0.1%	1.5%	2313	169	4	4	0.2%	2.2%	2252	167	4	4	0.2%	2.2%
17.00	3694	296	5	5	0.1%	1.6%	2360	159	3	3	0.1%	2.1%	1973	154	3	3	0.2%	2.2%
18.00	2774	255	5	5	0.2%	1.8%	2038	134	3	3	0.2%	2.5%	1863	129	3	3	0.2%	2.6%
19.00	1851	189	3	3	0.1%	1.4%	1601	123	3	3	0.2%	2.2%	1548	115	3	3	0.2%	2.3%
20.00	1277	142	3	3	0.2%	1.9%	1164	91	3	3	0.2%	2.9%	1279	100	3	3	0.2%	2.7%
21.00	956	109	4	4	0.4%	3.4%	973	71	4	4	0.4%	5.2%	935	83	4	4	0.4%	4.4%
22.00	735	74	4	4	0.5%	5.0%	861	49	4	4	0.4%	7.5%	554	45	4	4	0.7%	8.2%
23.00	440	63	0	0	0.0%	0.0%	664	50	0	0	0.0%	0.0%	336	47	0	0	0.0%	0.0%
12 hr	32605	4392	55	55	0.2%	1.3%	27081	2422	47	47	0.2%	1.9%	22787	1873	39	39	0.2%	2.1%
24 hr	42808	5937	68	68	0.2%	1.1%	35525	3494	59	59	0.2%	1.7%	29826	2671	51	51	0.2%	1.9%



**Link 5 - A249 between the A2 and M2**

**2031 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	338	91	0	0	0.0%	0.0%	564	93	0	0	0.0%	0.0%	649	60	0	0	0.0%	0.0%
01.00	243	79	0	0	0.0%	0.0%	377	85	0	0	0.0%	0.0%	419	50	0	0	0.0%	0.0%
02.00	241	87	0	0	0.0%	0.0%	320	99	0	0	0.0%	0.0%	295	55	0	0	0.0%	0.0%
03.00	339	113	0	0	0.0%	0.0%	322	100	0	0	0.0%	0.0%	247	58	0	0	0.0%	0.0%
04.00	782	199	0	0	0.0%	0.0%	438	111	0	0	0.0%	0.0%	282	59	0	0	0.0%	0.0%
05.00	1878	328	0	0	0.0%	0.0%	976	190	0	0	0.0%	0.0%	567	97	0	0	0.0%	0.0%
06.00	3114	406	0	0	0.0%	0.0%	1459	237	0	0	0.0%	0.0%	863	134	0	0	0.0%	0.0%
07.00	4398	463	5	5	0.1%	1.1%	1997	268	5	5	0.3%	1.9%	1130	146	4	4	0.3%	2.5%
08.00	3983	469	5	5	0.1%	1.1%	2559	286	5	5	0.2%	1.8%	1572	148	4	4	0.2%	2.5%
09.00	3071	485	4	4	0.1%	0.8%	2923	308	4	4	0.1%	1.3%	2319	202	3	3	0.1%	1.3%
10.00	2936	512	4	4	0.1%	0.8%	3343	290	4	4	0.1%	1.4%	3005	223	3	3	0.1%	1.2%
11.00	2990	501	4	4	0.1%	0.8%	3561	283	4	4	0.1%	1.5%	3336	222	3	3	0.1%	1.2%
12.00	3219	500	4	4	0.1%	0.8%	3852	258	4	4	0.1%	1.6%	3142	192	3	3	0.1%	1.4%
13.00	3262	517	5	5	0.1%	0.9%	3740	251	3	3	0.1%	1.3%	3064	196	3	3	0.1%	1.7%
14.00	3602	523	5	5	0.1%	0.9%	3444	235	3	3	0.1%	1.4%	3082	202	3	3	0.1%	1.6%
15.00	4030	511	5	5	0.1%	1.0%	3367	235	4	4	0.1%	1.6%	3045	215	4	4	0.1%	1.7%
16.00	4772	426	5	5	0.1%	1.2%	3278	204	4	4	0.1%	1.8%	3195	211	4	4	0.1%	1.7%
17.00	5149	371	5	5	0.1%	1.3%	3351	191	3	3	0.1%	1.7%	2791	193	3	3	0.1%	1.7%
18.00	3911	323	5	5	0.1%	1.5%	2909	164	3	3	0.1%	2.0%	2658	166	3	3	0.1%	2.0%
19.00	2596	244	3	3	0.1%	1.1%	2253	153	3	3	0.1%	1.7%	2177	143	3	3	0.1%	1.9%
20.00	1790	180	3	3	0.1%	1.5%	1639	112	3	3	0.2%	2.4%	1803	123	3	3	0.1%	2.2%
21.00	1337	138	4	4	0.3%	2.6%	1370	87	4	4	0.3%	4.2%	1315	105	4	4	0.3%	3.5%
22.00	1030	100	4	4	0.4%	3.7%	1225	65	4	4	0.3%	5.6%	786	60	4	4	0.5%	6.1%
23.00	621	86	0	0	0.0%	0.0%	945	66	0	0	0.0%	0.0%	475	62	0	0	0.0%	0.0%
12 hr	45324	5600	56	56	0.1%	1.0%	38324	2974	47	47	0.1%	1.6%	32339	2316	39	39	0.1%	1.7%
24 hr	59632	7651	69	69	0.1%	0.9%	50213	4373	60	60	0.1%	1.4%	42217	3321	51	51	0.1%	1.5%

Link 6 - M2 West

2031 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	428	111	0	0	0.0%	0.0%	711	123	0	0	0.0%	0.0%	869	69	0	0	0.0%	0.0%
01.00	326	103	0	0	0.0%	0.0%	472	106	0	0	0.0%	0.0%	533	66	0	0	0.0%	0.0%
02.00	341	117	0	0	0.0%	0.0%	398	99	0	0	0.0%	0.0%	355	51	0	0	0.0%	0.0%
03.00	467	160	0	0	0.0%	0.0%	419	120	0	0	0.0%	0.0%	315	71	0	0	0.0%	0.0%
04.00	1075	267	0	0	0.0%	0.0%	566	151	0	0	0.0%	0.0%	338	62	0	0	0.0%	0.0%
05.00	2830	449	0	0	0.0%	0.0%	1199	213	0	0	0.0%	0.0%	687	98	0	0	0.0%	0.0%
06.00	4268	527	0	0	0.0%	0.0%	1804	269	0	0	0.0%	0.0%	1031	126	0	0	0.0%	0.0%
07.00	5707	549	2	2	0.0%	0.5%	2526	312	2	2	0.1%	0.8%	1411	140	2	2	0.2%	1.6%
08.00	5278	602	2	2	0.0%	0.4%	3240	318	2	2	0.1%	0.8%	1885	144	2	2	0.1%	1.6%
09.00	4374	627	2	2	0.0%	0.3%	3631	316	2	2	0.1%	0.6%	2784	192	2	2	0.1%	0.9%
10.00	4035	614	2	2	0.0%	0.3%	4151	308	2	2	0.0%	0.6%	3764	221	2	2	0.0%	0.7%
11.00	4028	598	2	2	0.0%	0.3%	4601	289	2	2	0.0%	0.7%	4302	249	2	2	0.0%	0.7%
12.00	4378	638	2	2	0.0%	0.3%	4825	266	2	2	0.0%	0.7%	4635	223	2	2	0.0%	0.7%
13.00	4543	660	2	2	0.1%	0.3%	4745	263	2	2	0.0%	0.8%	4402	234	2	2	0.0%	0.9%
14.00	4834	659	2	2	0.0%	0.3%	4370	257	2	2	0.0%	0.8%	4011	232	2	2	0.1%	0.9%
15.00	5340	641	2	2	0.0%	0.4%	4196	240	2	2	0.1%	0.9%	3831	222	2	2	0.1%	1.0%
16.00	6281	519	2	2	0.0%	0.5%	4375	224	2	2	0.1%	1.0%	4240	211	2	2	0.1%	1.1%
17.00	6679	425	2	2	0.0%	0.5%	4156	192	2	2	0.0%	1.1%	3860	198	2	2	0.1%	1.0%
18.00	4988	351	2	2	0.0%	0.7%	3665	172	2	2	0.1%	1.2%	3400	157	2	2	0.1%	1.3%
19.00	3247	272	2	2	0.1%	0.6%	2806	140	2	2	0.1%	1.2%	2808	141	2	2	0.1%	1.2%
20.00	2271	187	2	2	0.1%	0.9%	2029	102	2	2	0.1%	1.6%	2121	103	2	2	0.1%	1.6%
21.00	1668	132	2	2	0.1%	1.7%	1577	83	2	2	0.1%	2.7%	1505	88	2	2	0.1%	2.6%
22.00	1339	112	2	2	0.2%	2.0%	1568	63	2	2	0.1%	3.6%	970	62	2	2	0.2%	3.7%
23.00	800	108	0	0	0.0%	0.0%	1213	69	0	0	0.0%	0.0%	556	79	0	0	0.0%	0.0%
12 hr	60465	6882	27	27	0.0%	0.4%	48483	3159	25	25	0.1%	0.8%	42524	2424	24	24	0.1%	1.0%
24 hr	79526	9426	35	35	0.0%	0.4%	63245	4696	33	33	0.1%	0.7%	54612	3438	32	32	0.1%	0.9%

Link 7 - M2 East

2031 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.0%	0.0%	650	110	0	0	0.0%	0.0%	795	61	0	0	0.0%	0.0%
01.00	297	92	0	0	0.0%	0.0%	430	94	0	0	0.0%	0.0%	487	58	0	0	0.0%	0.0%
02.00	311	105	0	0	0.0%	0.0%	363	88	0	0	0.0%	0.0%	323	44	0	0	0.0%	0.0%
03.00	426	144	0	0	0.0%	0.0%	382	108	0	0	0.0%	0.0%	287	63	0	0	0.0%	0.0%
04.00	984	242	0	0	0.0%	0.0%	517	136	0	0	0.0%	0.0%	308	54	0	0	0.0%	0.0%
05.00	2575	395	0	0	0.0%	0.0%	1082	178	0	0	0.0%	0.0%	611	72	0	0	0.0%	0.0%
06.00	3882	453	0	0	0.0%	0.0%	1623	217	0	0	0.0%	0.0%	913	86	0	0	0.0%	0.0%
07.00	5181	471	0	0	0.0%	0.1%	2281	255	0	0	0.0%	0.2%	1256	98	0	0	0.0%	0.3%
08.00	4760	521	0	0	0.0%	0.1%	2932	262	0	0	0.0%	0.2%	1687	103	0	0	0.0%	0.2%
09.00	3956	539	0	0	0.0%	0.1%	3286	256	0	0	0.0%	0.1%	2510	142	0	0	0.0%	0.1%
10.00	3642	525	0	0	0.0%	0.1%	3759	246	0	0	0.0%	0.1%	3398	165	0	0	0.0%	0.1%
11.00	3638	512	0	0	0.0%	0.1%	4173	229	0	0	0.0%	0.2%	3893	192	0	0	0.0%	0.1%
12.00	3964	558	0	0	0.0%	0.1%	4385	219	0	0	0.0%	0.2%	4208	179	0	0	0.0%	0.1%
13.00	4105	569	0	0	0.0%	0.1%	4299	207	0	0	0.0%	0.1%	3983	180	0	0	0.0%	0.1%
14.00	4376	573	0	0	0.0%	0.1%	3960	206	0	0	0.0%	0.1%	3635	182	0	0	0.0%	0.1%
15.00	4836	552	0	0	0.0%	0.1%	3797	185	0	0	0.0%	0.1%	3464	169	0	0	0.0%	0.1%
16.00	5703	446	0	0	0.0%	0.1%	3971	177	0	0	0.0%	0.1%	3849	165	0	0	0.0%	0.1%
17.00	6058	361	0	0	0.0%	0.1%	3768	150	0	0	0.0%	0.1%	3501	155	0	0	0.0%	0.1%
18.00	4542	305	0	0	0.0%	0.1%	3333	142	0	0	0.0%	0.2%	3093	128	0	0	0.0%	0.2%
19.00	2953	228	0	0	0.0%	0.1%	2552	107	0	0	0.0%	0.2%	2553	108	0	0	0.0%	0.2%
20.00	2064	154	0	0	0.0%	0.1%	1844	76	0	0	0.0%	0.2%	1928	76	0	0	0.0%	0.2%
21.00	1516	108	0	0	0.0%	0.2%	1433	63	0	0	0.0%	0.4%	1367	68	0	0	0.0%	0.4%
22.00	1223	100	0	0	0.0%	0.2%	1436	55	0	0	0.0%	0.4%	887	54	0	0	0.0%	0.5%
23.00	731	96	0	0	0.0%	0.0%	1111	60	0	0	0.0%	0.0%	508	70	0	0	0.0%	0.0%
12 hr	54761	5931	5	5	0.0%	0.1%	43944	2534	4	4	0.0%	0.1%	38476	1859	3	3	0.0%	0.1%
24 hr	72110	8146	6	6	0.0%	0.1%	57367	3827	5	5	0.0%	0.1%	49443	2672	3	3	0.0%	0.1%

**Link 8 - Swale Way north of Reams Way Junction**

**2031 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	644	51	0	0	0.0%	0.0%	240	19	0	0	0.0%	0.0%	129	12	0	0	0.0%	0.0%
07.00	1414	85	0	0	0.0%	0.0%	349	22	0	0	0.0%	0.0%	154	12	0	0	0.0%	0.0%
08.00	1499	83	0	0	0.0%	0.0%	450	30	0	0	0.0%	0.0%	153	14	0	0	0.0%	0.0%
09.00	950	99	0	0	0.0%	0.0%	571	31	0	0	0.0%	0.0%	322	13	0	0	0.0%	0.0%
10.00	839	106	0	0	0.0%	0.0%	704	34	0	0	0.0%	0.0%	437	18	0	0	0.0%	0.0%
11.00	830	100	0	0	0.0%	0.0%	770	23	0	0	0.0%	0.0%	529	24	0	0	0.0%	0.0%
12.00	932	102	0	0	0.0%	0.0%	732	25	0	0	0.0%	0.0%	556	19	0	0	0.0%	0.0%
13.00	900	93	0	0	0.0%	0.0%	692	33	0	0	0.0%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	0	0	0.0%	0.0%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1188	86	0	0	0.0%	0.0%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	0	0	0.0%	0.0%	553	20	0	0	0.0%	0.0%	539	17	0	0	0.0%	0.0%
17.00	1299	61	0	0	0.0%	0.0%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	0	0	0.0%	0.0%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	483	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	259	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.0%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13175	1052	0	0	0.0%	0.0%	7131	304	0	0	0.0%	0.0%	5243	184	0	0	0.0%	0.0%
24 hr	16116	1362	0	0	0.0%	0.0%	8933	431	0	0	0.0%	0.0%	6617	280	0	0	0.0%	0.0%

**Link 9 - Swale Way south of Reams Way Junction**

**2031 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	656	57	0	0	0.0%	0.0%	273	20	0	0	0.0%	0.0%	133	13	0	0	0.0%	0.0%
07.00	1416	85	0	0	0.0%	0.0%	347	27	0	0	0.0%	0.0%	188	12	0	0	0.0%	0.0%
08.00	1432	94	0	0	0.0%	0.0%	484	26	0	0	0.0%	0.0%	155	7	0	0	0.0%	0.0%
09.00	917	105	0	0	0.0%	0.0%	575	35	0	0	0.0%	0.0%	324	15	0	0	0.0%	0.0%
10.00	828	107	0	0	0.0%	0.0%	716	25	0	0	0.0%	0.0%	474	15	0	0	0.0%	0.0%
11.00	850	108	0	0	0.0%	0.0%	775	35	0	0	0.0%	0.0%	506	17	0	0	0.0%	0.0%
12.00	917	98	0	0	0.0%	0.0%	749	34	0	0	0.0%	0.0%	522	15	0	0	0.0%	0.0%
13.00	950	92	0	0	0.0%	0.0%	622	32	0	0	0.0%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	0	0	0.0%	0.0%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	0	0	0.0%	0.0%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1433	82	0	0	0.0%	0.0%	547	19	0	0	0.0%	0.0%	440	14	0	0	0.0%	0.0%
17.00	1370	64	0	0	0.0%	0.0%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	0	0	0.0%	0.0%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	477	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.0%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13210	1093	0	0	0.0%	0.0%	6976	316	0	0	0.0%	0.0%	4860	194	0	0	0.0%	0.0%
24 hr	16134	1403	0	0	0.0%	0.0%	8849	425	0	0	0.0%	0.0%	6172	278	0	0	0.0%	0.0%

**Link 10 - Swale Way south of Ridham Avenue Roundabout**

**2031 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	565	37	0	0	0.0%	0.0%	197	12	0	0	0.0%	0.0%	99	5	0	0	0.0%	0.0%
07.00	1313	67	0	0	0.0%	0.0%	319	16	0	0	0.0%	0.0%	138	5	0	0	0.0%	0.0%
08.00	1401	71	0	0	0.0%	0.0%	421	17	0	0	0.0%	0.0%	139	4	0	0	0.0%	0.0%
09.00	869	83	0	0	0.0%	0.0%	542	18	0	0	0.0%	0.0%	312	4	0	0	0.0%	0.0%
10.00	741	88	0	0	0.0%	0.0%	681	16	0	0	0.0%	0.0%	404	8	0	0	0.0%	0.0%
11.00	740	75	0	0	0.0%	0.0%	764	11	0	0	0.0%	0.0%	518	9	0	0	0.0%	0.0%
12.00	823	81	0	0	0.0%	0.0%	717	15	0	0	0.0%	0.0%	540	11	0	0	0.0%	0.0%
13.00	833	74	0	0	0.0%	0.0%	658	16	0	0	0.0%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	77	0	0	0.0%	0.0%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	0	0	0.0%	0.0%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	0	0	0.0%	0.0%	532	13	0	0	0.0%	0.0%	521	11	0	0	0.0%	0.0%
17.00	1242	56	0	0	0.0%	0.0%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	50	0	0	0.0%	0.0%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	431	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.0%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12154	863	0	0	0.0%	0.0%	6806	170	0	0	0.0%	0.0%	5023	84	0	0	0.0%	0.0%
24 hr	14591	1055	0	0	0.0%	0.0%	8379	245	0	0	0.0%	0.0%	6218	120	0	0	0.0%	0.0%

**Link 11 - A249 North of Swale Way Junction**

**2031 Baseline + K3 Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.0%	0.0%	436	30	0	0	0.0%	0.0%
07.00	3012	191	0	0	0.0%	0.0%	1139	82	0	0	0.0%	0.0%	581	26	0	0	0.0%	0.0%
08.00	2710	235	0	0	0.0%	0.0%	1543	83	0	0	0.0%	0.0%	872	31	0	0	0.0%	0.0%
09.00	2053	238	0	0	0.0%	0.0%	1887	76	0	0	0.0%	0.1%	1368	48	0	0	0.0%	0.0%
10.00	1965	234	0	0	0.0%	0.0%	2223	85	0	0	0.0%	0.0%	2020	41	0	0	0.0%	0.0%
11.00	2067	230	0	0	0.0%	0.0%	2492	71	0	0	0.0%	0.1%	2331	38	0	0	0.0%	0.0%
12.00	2199	227	0	0	0.0%	0.0%	2640	63	0	0	0.0%	0.1%	2543	44	0	0	0.0%	0.0%
13.00	2235	222	0	0	0.0%	0.0%	2540	61	0	0	0.0%	0.0%	2417	47	0	0	0.0%	0.0%
14.00	2350	239	0	0	0.0%	0.0%	2406	57	0	0	0.0%	0.0%	2134	42	0	0	0.0%	0.0%
15.00	2574	205	0	0	0.0%	0.0%	2333	45	0	0	0.0%	0.0%	2049	45	0	0	0.0%	0.0%
16.00	3164	170	0	0	0.0%	0.0%	2290	49	0	0	0.0%	0.0%	2114	41	0	0	0.0%	0.0%
17.00	3303	126	0	0	0.0%	0.0%	2189	36	0	0	0.0%	0.0%	1964	39	0	0	0.0%	0.0%
18.00	2284	83	0	0	0.0%	0.0%	1847	36	0	0	0.0%	0.0%	1763	43	0	0	0.0%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	0	0	0.0%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	0	0	0.0%	0.0%	822	25	0	0	0.0%	0.0%	704	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.0%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.0%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29916	2398	0	0	0.0%	0.0%	25528	742	0	0	0.0%	0.0%	22156	485	0	0	0.0%	0.0%
24 hr	37860	3121	0	0	0.0%	0.0%	32342	1117	0	0	0.0%	0.0%	27697	709	0	0	0.0%	0.0%

**APPENDIX AF: 2031 BASELINE AND WKN OPERATIONAL  
PERCENTAGE IMPACT TABLE**

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**Link 1 - Swale Way East of B2005 Groveshurst Roundabout**

**2031 Baseline + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	165	56	0	0	0.0%	0.0%	184	50	0	0	0.0%	0.0%	189	20	0	0	0.0%	0.0%
01.00	153	51	0	0	0.0%	0.0%	163	60	0	0	0.0%	0.0%	162	19	0	0	0.0%	0.0%
02.00	169	47	0	0	0.0%	0.0%	133	50	0	0	0.0%	0.0%	102	18	0	0	0.0%	0.0%
03.00	247	71	0	0	0.0%	0.0%	170	51	0	0	0.0%	0.0%	87	20	0	0	0.0%	0.0%
04.00	371	85	0	0	0.0%	0.0%	209	66	0	0	0.0%	0.0%	105	21	0	0	0.0%	0.0%
05.00	950	140	0	0	0.0%	0.0%	535	98	0	0	0.0%	0.0%	294	52	0	0	0.0%	0.0%
06.00	1125	194	11	0	1.0%	0.0%	527	139	11	0	2.1%	0.0%	256	80	11	0	4.3%	0.0%
07.00	1914	241	43	19	2.2%	7.7%	706	153	43	19	6.1%	12.1%	293	79	38	13	12.9%	17.0%
08.00	2229	231	19	19	0.8%	8.1%	741	134	19	19	2.5%	13.8%	315	75	13	13	4.2%	17.8%
09.00	1350	254	18	18	1.3%	6.9%	803	157	18	18	2.2%	11.2%	325	83	12	12	3.8%	14.9%
10.00	1232	275	18	18	1.4%	6.4%	911	158	18	18	1.9%	11.1%	344	91	12	12	3.6%	13.5%
11.00	1258	262	18	18	1.4%	6.7%	940	153	18	18	1.9%	11.5%	564	89	12	12	2.2%	13.9%
12.00	1377	247	18	18	1.3%	7.1%	962	130	18	18	1.8%	13.5%	864	73	12	12	1.4%	17.0%
13.00	1494	270	13	13	0.9%	5.0%	924	126	8	8	0.9%	6.5%	532	87	8	8	1.5%	9.4%
14.00	1475	262	13	13	0.9%	5.1%	904	123	8	8	0.9%	6.7%	545	81	8	8	1.5%	10.0%
15.00	1596	258	19	19	1.2%	7.2%	916	129	13	13	1.5%	10.4%	546	84	13	13	2.4%	16.0%
16.00	1725	215	30	19	1.7%	8.7%	823	114	24	13	3.0%	11.7%	665	71	24	13	3.7%	18.9%
17.00	1837	179	24	13	1.3%	7.5%	839	99	19	8	2.3%	8.3%	695	68	19	8	2.8%	12.1%
18.00	1214	141	16	13	1.3%	9.5%	695	77	11	8	1.5%	10.7%	456	46	11	8	2.3%	17.9%
19.00	734	102	23	12	3.2%	12.2%	555	73	23	12	4.2%	16.9%	521	56	23	12	4.5%	22.0%
20.00	549	98	12	12	2.3%	12.6%	406	74	12	12	3.0%	16.8%	369	49	12	12	3.4%	25.3%
21.00	394	73	13	13	3.4%	18.3%	322	54	13	13	4.1%	24.7%	231	38	13	13	5.8%	34.9%
22.00	309	54	13	13	4.3%	24.7%	285	30	13	13	4.7%	44.4%	314	15	13	13	4.3%	89.3%
23.00	203	51	0	0	0.0%	0.0%	209	34	0	0	0.0%	0.0%	202	15	0	0	0.0%	0.0%
12 hr	18700	2835	247	198	1.3%	7.0%	10164	1552	216	167	2.1%	10.8%	6144	925	185	136	3.0%	14.7%
24 hr	24069	3857	321	250	1.3%	6.5%	13862	2333	289	218	2.1%	9.4%	8974	1328	258	187	2.9%	14.1%

**Link 2 - Barge Way North of Swale Roundabout**

**2031 Baseline + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	133	40	0	0	0.0%	0.0%	138	36	0	0	0.0%	0.0%	105	31	0	0	0.0%	0.0%
01.00	136	37	0	0	0.0%	0.0%	112	31	0	0	0.0%	0.0%	92	30	0	0	0.0%	0.0%
02.00	174	38	0	0	0.0%	0.0%	135	40	0	0	0.0%	0.0%	93	27	0	0	0.0%	0.0%
03.00	228	56	0	0	0.0%	0.0%	171	48	0	0	0.0%	0.0%	86	30	0	0	0.0%	0.0%
04.00	313	68	0	0	0.0%	0.0%	216	62	0	0	0.0%	0.0%	109	33	0	0	0.0%	0.0%
05.00	550	104	0	0	0.0%	0.0%	351	90	0	0	0.0%	0.0%	199	60	0	0	0.0%	0.0%
06.00	539	143	11	0	2.0%	0.0%	318	128	11	0	3.5%	0.0%	177	82	11	0	6.2%	0.0%
07.00	544	172	43	19	8.0%	10.9%	330	138	43	19	13.1%	13.6%	178	95	38	13	21.4%	14.1%
08.00	551	170	19	19	3.4%	11.0%	314	141	19	19	6.0%	13.3%	190	84	13	13	7.0%	15.9%
09.00	459	188	18	18	3.9%	9.4%	301	147	18	18	5.9%	12.1%	172	95	12	12	7.2%	13.0%
10.00	470	194	18	18	3.8%	9.1%	312	136	18	18	5.7%	13.0%	176	99	12	12	7.0%	12.5%
11.00	427	193	18	18	4.2%	9.2%	283	142	18	18	6.3%	12.5%	201	112	12	12	6.2%	11.0%
12.00	441	177	18	18	4.0%	10.0%	262	104	18	18	6.8%	17.0%	236	83	12	12	5.2%	15.0%
13.00	540	202	14	14	2.5%	6.7%	326	113	8	8	2.5%	7.3%	236	103	8	8	3.5%	8.0%
14.00	535	211	14	14	2.5%	6.4%	296	125	8	8	2.8%	6.6%	208	101	8	8	3.9%	8.1%
15.00	532	209	19	19	3.5%	9.0%	311	134	13	13	4.3%	10.0%	200	104	13	13	6.7%	12.9%
16.00	549	174	30	19	5.4%	10.8%	263	94	24	13	9.3%	14.3%	238	100	24	13	10.2%	13.4%
17.00	534	138	25	14	4.6%	9.8%	230	87	19	8	8.3%	9.4%	211	78	19	8	9.1%	10.6%
18.00	381	107	16	14	4.2%	12.7%	192	58	11	8	5.6%	14.2%	148	52	11	8	7.2%	15.9%
19.00	253	90	23	12	9.2%	13.7%	139	74	23	12	16.8%	16.7%	135	59	23	12	17.3%	20.9%
20.00	188	69	12	12	6.6%	17.9%	111	62	12	12	11.2%	20.0%	104	55	12	12	11.8%	22.6%
21.00	154	52	13	13	8.7%	25.9%	98	45	13	13	13.6%	29.6%	83	39	13	13	16.1%	34.1%
22.00	118	37	13	13	11.4%	36.1%	76	28	13	13	17.6%	47.5%	82	20	13	13	16.3%	66.8%
23.00	148	46	0	0	0.0%	0.0%	82	29	0	0	0.0%	0.0%	79	25	0	0	0.0%	0.0%
12 hr	5964	2134	249	200	4.2%	9.4%	3420	1417	217	168	6.3%	11.8%	2394	1103	185	136	7.7%	12.3%
24 hr	8898	2914	323	252	3.6%	8.6%	5367	2091	291	219	5.4%	10.5%	3737	1595	258	187	6.9%	11.7%

**Link 3 - Barge Way East of Fleet End Roundabout**

**2031 Baseline + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	45	23	0	0	0.0%	0.0%	95	19	0	0	0.0%	0.0%	19	15	0	0	0.0%	0.0%
01.00	43	22	0	0	0.0%	0.0%	39	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
02.00	62	24	0	0	0.0%	0.0%	40	30	0	0	0.0%	0.0%	18	15	0	0	0.0%	0.0%
03.00	75	26	0	0	0.0%	0.0%	24	17	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
04.00	116	32	0	0	0.0%	0.0%	43	25	0	0	0.0%	0.0%	25	15	0	0	0.0%	0.0%
05.00	231	41	0	0	0.0%	0.0%	102	22	0	0	0.0%	0.0%	60	16	0	0	0.0%	0.0%
06.00	284	59	11	0	3.9%	0.0%	119	44	11	0	9.3%	0.0%	64	18	11	0	17.3%	0.0%
07.00	330	90	43	19	13.1%	20.7%	154	60	43	19	28.1%	31.0%	86	31	38	13	44.0%	43.6%
08.00	329	98	19	19	5.7%	19.0%	162	64	19	19	11.6%	29.1%	109	28	13	13	12.2%	48.4%
09.00	249	101	18	18	7.1%	17.6%	143	64	18	18	12.4%	27.5%	76	28	12	12	16.4%	44.8%
10.00	238	103	18	18	7.5%	17.1%	131	59	18	18	13.5%	29.9%	76	28	12	12	16.2%	44.8%
11.00	213	100	18	18	8.3%	17.7%	117	45	18	18	15.2%	39.2%	70	30	12	12	17.8%	41.8%
12.00	247	101	18	18	7.2%	17.5%	109	40	18	18	16.3%	44.2%	77	29	12	12	16.1%	43.2%
13.00	286	103	14	14	4.7%	13.2%	133	32	8	8	6.2%	25.9%	113	28	8	8	7.2%	29.7%
14.00	263	113	14	14	5.1%	12.0%	110	31	8	8	7.4%	26.7%	93	28	8	8	8.8%	29.7%
15.00	236	110	19	19	7.9%	17.1%	97	35	13	13	13.7%	38.6%	79	29	13	13	16.9%	46.7%
16.00	268	89	30	19	11.1%	21.2%	104	32	24	13	23.4%	42.2%	98	31	24	13	24.8%	43.6%
17.00	308	68	25	14	8.0%	19.9%	115	29	19	8	16.7%	28.6%	124	28	19	8	15.4%	29.7%
18.00	159	42	16	14	10.1%	31.9%	67	17	11	8	16.0%	48.2%	64	16	11	8	16.8%	51.2%
19.00	93	33	23	12	25.1%	37.1%	52	15	23	12	45.3%	82.7%	55	15	23	12	42.8%	82.7%
20.00	82	32	12	12	15.0%	39.2%	34	17	12	12	36.0%	72.8%	33	15	12	12	37.1%	82.7%
21.00	77	24	13	13	17.4%	55.1%	36	15	13	13	36.7%	89.3%	35	17	13	13	37.8%	78.7%
22.00	50	26	13	13	26.8%	51.6%	21	15	13	13	63.0%	89.3%	28	16	13	13	47.2%	83.7%
23.00	45	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%	22	16	0	0	0.0%	0.0%
12 hr	3126	1119	249	200	8.0%	17.9%	1443	508	217	168	15.0%	33.0%	1066	330	185	136	17.3%	41.2%
24 hr	4329	1484	323	252	7.5%	17.0%	2064	765	291	219	14.1%	28.7%	1458	517	258	187	17.7%	36.2%

Link 4 - A249 South of Swale Way Junction

2031 Baseline + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	240	67	0	0	0.0%	0.0%	398	68	0	0	0.0%	0.0%	458	45	0	0	0.0%	0.0%
01.00	174	58	0	0	0.0%	0.0%	267	63	0	0	0.0%	0.0%	296	38	0	0	0.0%	0.0%
02.00	172	65	0	0	0.0%	0.0%	227	73	0	0	0.0%	0.0%	209	42	0	0	0.0%	0.0%
03.00	242	83	0	0	0.0%	0.0%	228	73	0	0	0.0%	0.0%	176	44	0	0	0.0%	0.0%
04.00	553	144	0	0	0.0%	0.0%	310	81	0	0	0.0%	0.0%	201	45	0	0	0.0%	0.0%
05.00	1343	244	0	0	0.0%	0.0%	700	145	0	0	0.0%	0.0%	414	80	0	0	0.0%	0.0%
06.00	2221	308	11	0	0.5%	0.0%	1050	186	11	0	1.0%	0.0%	634	114	11	0	1.7%	0.0%
07.00	3153	363	42	18	1.3%	5.1%	1443	217	42	18	2.9%	8.5%	822	124	37	13	4.5%	10.8%
08.00	2910	368	18	18	0.6%	5.0%	1839	229	18	18	1.0%	8.1%	1136	124	13	13	1.2%	10.8%
09.00	2217	381	17	17	0.8%	4.6%	2072	247	17	17	0.8%	7.1%	1645	165	12	12	0.8%	7.5%
10.00	2126	403	17	17	0.8%	4.3%	2367	236	17	17	0.7%	7.4%	2107	181	12	12	0.6%	6.8%
11.00	2160	393	17	17	0.8%	4.4%	2511	231	17	17	0.7%	7.6%	2330	180	12	12	0.5%	6.9%
12.00	2321	387	17	17	0.8%	4.5%	2703	207	17	17	0.6%	8.4%	2190	152	12	12	0.6%	8.1%
13.00	2358	404	13	13	0.6%	3.3%	2640	206	8	8	0.3%	4.0%	2154	161	8	8	0.4%	5.1%
14.00	2600	405	13	13	0.5%	3.3%	2422	192	8	8	0.3%	4.3%	2173	162	8	8	0.4%	5.0%
15.00	2884	400	18	18	0.6%	4.6%	2372	195	13	13	0.6%	6.9%	2142	174	13	13	0.6%	7.7%
16.00	3409	336	29	18	0.8%	5.5%	2313	169	24	13	1.0%	7.9%	2252	167	24	13	1.1%	8.0%
17.00	3694	296	24	13	0.6%	4.5%	2360	159	19	8	0.8%	5.1%	1973	154	19	8	0.9%	5.3%
18.00	2774	255	16	13	0.6%	5.2%	2038	134	11	8	0.5%	6.1%	1863	129	11	8	0.6%	6.4%
19.00	1851	189	23	12	1.2%	6.5%	1601	123	23	12	1.4%	10.1%	1548	115	23	12	1.5%	10.7%
20.00	1277	142	12	12	1.0%	8.7%	1164	91	12	12	1.1%	13.5%	1279	100	12	12	1.0%	12.4%
21.00	956	109	13	13	1.4%	12.3%	973	71	13	13	1.4%	18.8%	935	83	13	13	1.4%	16.0%
22.00	735	74	13	13	1.8%	18.1%	861	49	13	13	1.6%	27.3%	554	45	13	13	2.4%	29.8%
23.00	440	63	0	0	0.0%	0.0%	664	50	0	0	0.0%	0.0%	336	47	0	0	0.0%	0.0%
12 hr	32605	4392	243	197	0.7%	4.5%	27081	2422	213	166	0.8%	6.9%	22787	1873	183	136	0.8%	7.2%
24 hr	42808	5937	316	248	0.7%	4.2%	35525	3494	285	218	0.8%	6.2%	29826	2671	255	187	0.9%	7.0%

Link 5 - A249 between the A2 and M2

2031 Baseline + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	338	91	0	0	0.0%	0.0%	564	93	0	0	0.0%	0.0%	649	60	0	0	0.0%	0.0%
01.00	243	79	0	0	0.0%	0.0%	377	85	0	0	0.0%	0.0%	419	50	0	0	0.0%	0.0%
02.00	241	87	0	0	0.0%	0.0%	320	99	0	0	0.0%	0.0%	295	55	0	0	0.0%	0.0%
03.00	339	113	0	0	0.0%	0.0%	322	100	0	0	0.0%	0.0%	247	58	0	0	0.0%	0.0%
04.00	782	199	0	0	0.0%	0.0%	438	111	0	0	0.0%	0.0%	282	59	0	0	0.0%	0.0%
05.00	1878	328	0	0	0.0%	0.0%	976	190	0	0	0.0%	0.0%	567	97	0	0	0.0%	0.0%
06.00	3114	406	10	0	0.3%	0.0%	1459	237	10	0	0.7%	0.0%	863	134	10	0	1.2%	0.0%
07.00	4398	463	41	19	0.9%	4.0%	1997	268	41	19	2.1%	7.0%	1130	146	36	13	3.2%	9.1%
08.00	3983	469	19	19	0.5%	4.0%	2559	286	19	19	0.7%	6.5%	1572	148	13	13	0.9%	9.0%
09.00	3071	485	18	18	0.6%	3.7%	2923	308	18	18	0.6%	5.8%	2319	202	12	12	0.5%	6.1%
10.00	2936	512	18	18	0.6%	3.5%	3343	290	18	18	0.5%	6.1%	3005	223	12	12	0.4%	5.5%
11.00	2990	501	18	18	0.6%	3.5%	3561	283	18	18	0.5%	6.3%	3336	222	12	12	0.4%	5.6%
12.00	3219	500	18	18	0.6%	3.6%	3852	258	18	18	0.5%	6.9%	3142	192	12	12	0.4%	6.4%
13.00	3262	517	14	14	0.4%	2.6%	3740	251	8	8	0.2%	3.3%	3064	196	8	8	0.3%	4.2%
14.00	3602	523	14	14	0.4%	2.6%	3444	235	8	8	0.2%	3.5%	3082	202	8	8	0.3%	4.1%
15.00	4030	511	19	19	0.5%	3.7%	3367	235	13	13	0.4%	5.7%	3045	215	13	13	0.4%	6.2%
16.00	4772	426	29	19	0.6%	4.4%	3278	204	23	13	0.7%	6.6%	3195	211	23	13	0.7%	6.3%
17.00	5149	371	24	14	0.5%	3.7%	3351	191	18	8	0.5%	4.3%	2791	193	18	8	0.7%	4.2%
18.00	3911	323	16	14	0.4%	4.2%	2909	164	11	8	0.4%	5.0%	2658	166	11	8	0.4%	4.9%
19.00	2596	244	22	12	0.9%	5.1%	2253	153	22	12	1.0%	8.1%	2177	143	22	12	1.0%	8.7%
20.00	1790	180	12	12	0.7%	6.9%	1639	112	12	12	0.8%	11.0%	1803	123	12	12	0.7%	10.0%
21.00	1337	138	13	13	1.0%	9.7%	1370	87	13	13	1.0%	15.3%	1315	105	13	13	1.0%	12.8%
22.00	1030	100	13	13	1.3%	13.4%	1225	65	13	13	1.1%	20.4%	786	60	13	13	1.7%	22.5%
23.00	621	86	0	0	0.0%	0.0%	945	66	0	0	0.0%	0.0%	475	62	0	0	0.0%	0.0%
12 hr	45324	5600	245	200	0.5%	3.6%	38324	2974	213	168	0.6%	5.6%	32339	2316	180	136	0.6%	5.9%
24 hr	59632	7651	317	252	0.5%	3.3%	50213	4373	284	219	0.6%	5.0%	42217	3321	252	187	0.6%	5.6%

Link 6 - M2 West

2031 Baseline + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	428	111	0	0	0.0%	0.0%	711	123	0	0	0.0%	0.0%	869	69	0	0	0.0%	0.0%
01.00	326	103	0	0	0.0%	0.0%	472	106	0	0	0.0%	0.0%	533	66	0	0	0.0%	0.0%
02.00	341	117	0	0	0.0%	0.0%	398	99	0	0	0.0%	0.0%	355	51	0	0	0.0%	0.0%
03.00	467	160	0	0	0.0%	0.0%	419	120	0	0	0.0%	0.0%	315	71	0	0	0.0%	0.0%
04.00	1075	267	0	0	0.0%	0.0%	566	151	0	0	0.0%	0.0%	338	62	0	0	0.0%	0.0%
05.00	2830	449	0	0	0.0%	0.0%	1199	213	0	0	0.0%	0.0%	687	98	0	0	0.0%	0.0%
06.00	4268	527	3	0	0.1%	0.0%	1804	269	3	0	0.2%	0.0%	1031	126	3	0	0.3%	0.0%
07.00	5707	549	16	9	0.3%	1.7%	2526	312	16	9	0.6%	2.9%	1411	140	15	8	1.1%	5.9%
08.00	5278	602	9	9	0.2%	1.5%	3240	318	9	9	0.3%	2.9%	1885	144	8	8	0.4%	5.7%
09.00	4374	627	9	9	0.2%	1.4%	3631	316	9	9	0.2%	2.7%	2784	192	8	8	0.3%	4.0%
10.00	4035	614	9	9	0.2%	1.4%	4151	308	9	9	0.2%	2.8%	3764	221	8	8	0.2%	3.5%
11.00	4028	598	9	9	0.2%	1.4%	4601	289	9	9	0.2%	3.0%	4302	249	8	8	0.2%	3.1%
12.00	4378	638	9	9	0.2%	1.3%	4825	266	9	9	0.2%	3.2%	4635	223	8	8	0.2%	3.4%
13.00	4543	660	6	6	0.1%	0.9%	4745	263	5	5	0.1%	1.9%	4402	234	5	5	0.1%	2.2%
14.00	4834	659	6	6	0.1%	0.9%	4370	257	5	5	0.1%	2.0%	4011	232	5	5	0.1%	2.2%
15.00	5340	641	9	9	0.2%	1.4%	4196	240	8	8	0.2%	3.4%	3831	222	8	8	0.2%	3.7%
16.00	6281	519	12	9	0.2%	1.8%	4375	224	11	8	0.3%	3.7%	4240	211	11	8	0.3%	3.9%
17.00	6679	425	9	6	0.1%	1.4%	4156	192	8	5	0.2%	2.6%	3860	198	8	5	0.2%	2.5%
18.00	4988	351	7	6	0.1%	1.7%	3665	172	6	5	0.2%	2.9%	3400	157	6	5	0.2%	3.2%
19.00	3247	272	11	8	0.3%	2.8%	2806	140	11	8	0.4%	5.5%	2808	141	11	8	0.4%	5.4%
20.00	2271	187	8	8	0.3%	4.1%	2029	102	8	8	0.4%	7.5%	2121	103	8	8	0.4%	7.4%
21.00	1668	132	8	8	0.5%	6.3%	1577	83	8	8	0.5%	10.0%	1505	88	8	8	0.5%	9.4%
22.00	1339	112	8	8	0.6%	7.4%	1568	63	8	8	0.5%	13.0%	970	62	8	8	0.9%	13.4%
23.00	800	108	0	0	0.0%	0.0%	1213	69	0	0	0.0%	0.0%	556	79	0	0	0.0%	0.0%
12 hr	60465	6882	108	94	0.2%	1.4%	48483	3159	103	89	0.2%	2.8%	42524	2424	97	84	0.2%	3.5%
24 hr	79526	9426	146	126	0.2%	1.3%	63245	4696	140	121	0.2%	2.6%	54612	3438	135	115	0.2%	3.4%

Link 7 - M2 East

2031 Baseline + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.0%	0.0%	650	110	0	0	0.0%	0.0%	795	61	0	0	0.0%	0.0%
01.00	297	92	0	0	0.0%	0.0%	430	94	0	0	0.0%	0.0%	487	58	0	0	0.0%	0.0%
02.00	311	105	0	0	0.0%	0.0%	363	88	0	0	0.0%	0.0%	323	44	0	0	0.0%	0.0%
03.00	426	144	0	0	0.0%	0.0%	382	108	0	0	0.0%	0.0%	287	63	0	0	0.0%	0.0%
04.00	984	242	0	0	0.0%	0.0%	517	136	0	0	0.0%	0.0%	308	54	0	0	0.0%	0.0%
05.00	2575	395	0	0	0.0%	0.0%	1082	178	0	0	0.0%	0.0%	611	72	0	0	0.0%	0.0%
06.00	3882	453	1	0	0.0%	0.0%	1623	217	1	0	0.1%	0.0%	913	86	1	0	0.2%	0.0%
07.00	5181	471	5	2	0.1%	0.3%	2281	255	5	2	0.2%	0.6%	1256	98	4	1	0.3%	0.9%
08.00	4760	521	2	2	0.0%	0.3%	2932	262	2	2	0.1%	0.6%	1687	103	1	1	0.1%	0.9%
09.00	3956	539	2	2	0.0%	0.3%	3286	256	2	2	0.0%	0.6%	2510	142	1	1	0.0%	0.6%
10.00	3642	525	2	2	0.0%	0.3%	3759	246	2	2	0.0%	0.6%	3398	165	1	1	0.0%	0.5%
11.00	3638	512	2	2	0.0%	0.3%	4173	229	2	2	0.0%	0.7%	3893	192	1	1	0.0%	0.4%
12.00	3964	558	2	2	0.0%	0.3%	4385	219	2	2	0.0%	0.7%	4208	179	1	1	0.0%	0.5%
13.00	4105	569	1	1	0.0%	0.2%	4299	207	1	1	0.0%	0.3%	3983	180	1	1	0.0%	0.3%
14.00	4376	573	1	1	0.0%	0.2%	3960	206	1	1	0.0%	0.3%	3635	182	1	1	0.0%	0.3%
15.00	4836	552	2	2	0.0%	0.3%	3797	185	1	1	0.0%	0.5%	3464	169	1	1	0.0%	0.5%
16.00	5703	446	3	2	0.1%	0.4%	3971	177	2	1	0.1%	0.5%	3849	165	2	1	0.1%	0.5%
17.00	6058	361	3	1	0.0%	0.3%	3768	150	2	1	0.1%	0.4%	3501	155	2	1	0.1%	0.4%
18.00	4542	305	2	1	0.0%	0.4%	3333	142	1	1	0.0%	0.4%	3093	128	1	1	0.0%	0.4%
19.00	2953	228	2	1	0.1%	0.4%	2552	107	2	1	0.1%	0.8%	2553	108	2	1	0.1%	0.8%
20.00	2064	154	1	1	0.0%	0.5%	1844	76	1	1	0.0%	1.1%	1928	76	1	1	0.0%	1.1%
21.00	1516	108	1	1	0.1%	0.8%	1433	63	1	1	0.1%	1.4%	1367	68	1	1	0.1%	1.3%
22.00	1223	100	1	1	0.1%	0.9%	1436	55	1	1	0.1%	1.6%	887	54	1	1	0.1%	1.7%
23.00	731	96	0	0	0.0%	0.0%	1111	60	0	0	0.0%	0.0%	508	70	0	0	0.0%	0.0%
12 hr	54761	5931	24	17	0.0%	0.3%	43944	2534	20	13	0.0%	0.5%	38476	1859	16	9	0.0%	0.5%
24 hr	72110	8146	30	21	0.0%	0.3%	57367	3827	26	17	0.0%	0.4%	49443	2672	22	13	0.0%	0.5%

**Link 8 - Swale Way north of Reams Way Junction**

**2031 Baseline + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	644	51	0	0	0.0%	0.0%	240	19	0	0	0.0%	0.0%	129	12	0	0	0.0%	0.0%
07.00	1414	85	0	0	0.0%	0.0%	349	22	0	0	0.0%	0.0%	154	12	0	0	0.1%	0.0%
08.00	1499	83	0	0	0.0%	0.0%	450	30	0	0	0.0%	0.0%	153	14	0	0	0.0%	0.0%
09.00	950	99	0	0	0.0%	0.0%	571	31	0	0	0.0%	0.0%	322	13	0	0	0.0%	0.0%
10.00	839	106	1	1	0.1%	0.9%	704	34	1	1	0.1%	2.9%	437	18	0	0	0.0%	0.0%
11.00	830	100	1	1	0.1%	1.0%	770	23	1	1	0.1%	4.3%	529	24	0	0	0.0%	0.0%
12.00	932	102	0	0	0.0%	0.0%	732	25	0	0	0.0%	0.0%	556	19	0	0	0.0%	0.0%
13.00	900	93	0	0	0.0%	0.0%	692	33	0	0	0.0%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	0	0	0.0%	0.0%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1188	86	0	0	0.0%	0.0%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	0	0	0.0%	0.0%	553	20	0	0	0.0%	0.0%	539	17	0	0	0.0%	0.0%
17.00	1299	61	0	0	0.0%	0.0%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	0	0	0.0%	0.0%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	483	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	259	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.0%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13175	1052	2	2	0.0%	0.2%	7131	304	2	2	0.0%	0.7%	5243	184	0	0	0.0%	0.0%
24 hr	16116	1362	2	2	0.0%	0.1%	8933	431	2	2	0.0%	0.5%	6617	280	0	0	0.0%	0.0%



**Link 9 - Swale Way south of Reams Way Junction**

**2031 Baseline + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	656	57	0	0	0.0%	0.0%	273	20	0	0	0.0%	0.0%	133	13	0	0	0.0%	0.0%
07.00	1416	85	0	0	0.0%	0.0%	347	27	0	0	0.0%	0.0%	188	12	0	0	0.1%	0.0%
08.00	1432	94	0	0	0.0%	0.0%	484	26	0	0	0.0%	0.0%	155	7	0	0	0.0%	0.0%
09.00	917	105	0	0	0.0%	0.0%	575	35	0	0	0.0%	0.0%	324	15	0	0	0.0%	0.0%
10.00	828	107	1	1	0.1%	0.9%	716	25	1	1	0.1%	4.0%	474	15	0	0	0.0%	0.0%
11.00	850	108	1	1	0.1%	0.9%	775	35	1	1	0.1%	2.8%	506	17	0	0	0.0%	0.0%
12.00	917	98	0	0	0.0%	0.0%	749	34	0	0	0.0%	0.0%	522	15	0	0	0.0%	0.0%
13.00	950	92	0	0	0.0%	0.0%	622	32	0	0	0.0%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	0	0	0.0%	0.0%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	0	0	0.0%	0.0%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1433	82	0	0	0.0%	0.0%	547	19	0	0	0.0%	0.0%	440	14	0	0	0.0%	0.0%
17.00	1370	64	0	0	0.0%	0.0%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	0	0	0.0%	0.0%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	477	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.0%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13210	1093	2	2	0.0%	0.2%	6976	316	2	2	0.0%	0.6%	4860	194	0	0	0.0%	0.0%
24 hr	16134	1403	2	2	0.0%	0.1%	8849	425	2	2	0.0%	0.5%	6172	278	0	0	0.0%	0.0%

**Link 10 - Swale Way south of Ridham Avenue Roundabout**

**2031 Baseline + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	565	37	0	0	0.0%	0.0%	197	12	0	0	0.0%	0.0%	99	5	0	0	0.1%	0.0%
07.00	1313	67	0	0	0.0%	0.0%	319	16	0	0	0.0%	0.0%	138	5	0	0	0.1%	0.0%
08.00	1401	71	0	0	0.0%	0.0%	421	17	0	0	0.0%	0.0%	139	4	0	0	0.0%	0.0%
09.00	869	83	0	0	0.0%	0.0%	542	18	0	0	0.0%	0.0%	312	4	0	0	0.0%	0.0%
10.00	741	88	1	1	0.1%	1.1%	681	16	1	1	0.1%	6.1%	404	8	0	0	0.0%	0.0%
11.00	740	75	1	1	0.1%	1.3%	764	11	1	1	0.1%	8.8%	518	9	0	0	0.0%	0.0%
12.00	823	81	0	0	0.0%	0.0%	717	15	0	0	0.0%	0.0%	540	11	0	0	0.0%	0.0%
13.00	833	74	0	0	0.0%	0.0%	658	16	0	0	0.0%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	77	0	0	0.0%	0.0%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	0	0	0.0%	0.0%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	0	0	0.0%	0.0%	532	13	0	0	0.0%	0.0%	521	11	0	0	0.0%	0.0%
17.00	1242	56	0	0	0.0%	0.0%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	50	0	0	0.0%	0.0%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	431	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.0%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12154	863	2	2	0.0%	0.2%	6806	170	2	2	0.0%	1.2%	5023	84	0	0	0.0%	0.0%
24 hr	14591	1055	2	2	0.0%	0.2%	8379	245	2	2	0.0%	0.8%	6218	120	0	0	0.0%	0.0%

**Link 11 - A249 North of Swale Way Junction**

**2031 Baseline + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact		2031 Baseline		Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.0%	0.0%	436	30	0	0	0.1%	0.0%
07.00	3012	191	1	0	0.0%	0.1%	1139	82	1	0	0.1%	0.2%	581	26	1	0	0.1%	0.0%
08.00	2710	235	0	0	0.0%	0.1%	1543	83	0	0	0.0%	0.2%	872	31	0	0	0.0%	0.0%
09.00	2053	238	0	0	0.0%	0.1%	1887	76	0	0	0.0%	0.2%	1368	48	0	0	0.0%	0.0%
10.00	1965	234	0	0	0.0%	0.1%	2223	85	0	0	0.0%	0.2%	2020	41	0	0	0.0%	0.0%
11.00	2067	230	0	0	0.0%	0.1%	2492	71	0	0	0.0%	0.2%	2331	38	0	0	0.0%	0.0%
12.00	2199	227	0	0	0.0%	0.1%	2640	63	0	0	0.0%	0.2%	2543	44	0	0	0.0%	0.0%
13.00	2235	222	0	0	0.0%	0.1%	2540	61	0	0	0.0%	0.0%	2417	47	0	0	0.0%	0.0%
14.00	2350	239	0	0	0.0%	0.1%	2406	57	0	0	0.0%	0.0%	2134	42	0	0	0.0%	0.0%
15.00	2574	205	0	0	0.0%	0.1%	2333	45	0	0	0.0%	0.0%	2049	45	0	0	0.0%	0.0%
16.00	3164	170	0	0	0.0%	0.1%	2290	49	0	0	0.0%	0.0%	2114	41	0	0	0.0%	0.0%
17.00	3303	126	0	0	0.0%	0.1%	2189	36	0	0	0.0%	0.0%	1964	39	0	0	0.0%	0.0%
18.00	2284	83	0	0	0.0%	0.2%	1847	36	0	0	0.0%	0.0%	1763	43	0	0	0.0%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	0	0	0.0%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	0	0	0.0%	0.0%	822	25	0	0	0.0%	0.0%	704	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.0%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.0%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29916	2398	3	2	0.0%	0.1%	25528	742	2	1	0.0%	0.1%	22156	485	1	0	0.0%	0.0%
24 hr	37860	3121	4	2	0.0%	0.1%	32342	1117	3	1	0.0%	0.1%	27697	709	2	0	0.0%	0.0%

**APPENDIX AG: 2031 BASELINE, WKN OPERATIONAL AND K3 OPERATIONAL PERCENTAGE IMPACT TABLE**

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Link 1 - Swale Way East of B2005 Groveshurst Roundabout

2031 Baseline + K3 Operational + WKN Operational (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	160	51	5	5	3.1%	9.7%	179	45	5	5	2.8%	10.9%	184	15	5	5	2.7%	32.9%
01.00	148	46	5	5	3.3%	10.8%	158	56	5	5	3.1%	8.9%	157	14	5	5	3.2%	35.3%
02.00	164	42	5	5	3.0%	11.8%	128	45	5	5	3.9%	10.9%	97	13	5	5	5.1%	38.1%
03.00	242	66	5	5	2.1%	7.5%	165	46	5	5	3.0%	10.7%	82	15	5	5	6.0%	32.9%
04.00	366	80	5	5	1.4%	6.2%	204	61	5	5	2.4%	8.2%	100	16	5	5	5.0%	30.9%
05.00	945	135	5	5	0.5%	3.7%	530	93	5	5	0.9%	5.3%	289	47	5	5	1.7%	10.6%
06.00	1116	189	20	5	1.8%	2.6%	517	134	20	5	3.9%	3.7%	247	75	20	5	8.2%	6.6%
07.00	1885	216	77	48	4.1%	22.4%	677	128	77	48	11.4%	37.7%	271	61	63	35	23.4%	56.7%
08.00	2193	206	60	48	2.7%	23.5%	705	110	60	48	8.6%	44.2%	286	57	46	35	16.3%	60.3%
09.00	1326	229	46	46	3.5%	20.3%	778	133	46	46	6.0%	35.0%	307	65	33	33	10.6%	50.0%
10.00	1207	251	46	46	3.8%	18.5%	886	133	46	46	5.2%	34.9%	326	74	33	33	10.0%	44.2%
11.00	1233	237	46	46	3.8%	19.6%	915	129	46	46	5.1%	36.1%	547	71	33	33	6.0%	45.7%
12.00	1352	222	46	46	3.4%	20.9%	937	105	46	46	5.0%	44.2%	847	55	33	33	3.9%	59.2%
13.00	1465	245	47	43	3.2%	17.5%	903	108	33	29	3.7%	26.9%	510	69	33	29	6.5%	42.1%
14.00	1446	237	47	43	3.2%	18.1%	882	105	33	29	3.8%	27.7%	523	64	33	29	6.4%	45.5%
15.00	1571	234	48	48	3.1%	20.7%	898	111	35	35	3.9%	31.1%	529	66	35	35	6.5%	52.4%
16.00	1700	190	59	48	3.5%	25.5%	805	96	46	35	5.7%	36.0%	647	53	46	35	7.0%	65.2%
17.00	1800	155	66	43	3.6%	27.8%	810	81	52	29	6.4%	35.9%	666	50	52	29	7.8%	58.2%
18.00	1202	129	33	30	2.7%	23.5%	690	72	19	16	2.8%	23.0%	451	41	19	16	4.2%	40.4%
19.00	729	97	31	20	4.2%	20.7%	550	68	31	20	5.6%	29.3%	516	51	31	20	6.0%	39.0%
20.00	544	93	20	20	3.7%	21.4%	401	69	20	20	5.0%	29.0%	364	44	20	20	5.5%	45.6%
21.00	384	68	26	22	6.8%	32.3%	313	49	26	22	8.4%	44.7%	221	33	26	22	11.8%	65.9%
22.00	300	49	26	22	8.7%	44.7%	276	25	26	22	9.5%	87.3%	305	10	26	22	8.6%	219.8%
23.00	198	46	5	5	2.5%	10.8%	204	29	5	5	2.4%	17.0%	197	10	5	5	2.5%	49.6%
12 hr	18381	2550	622	539	3.4%	21.1%	9886	1311	541	456	5.5%	34.8%	5909	727	458	373	7.7%	51.3%
24 hr	23678	3513	780	662	3.3%	18.9%	13512	2032	699	579	5.2%	28.5%	8667	1070	616	496	7.1%	46.4%

**Link 2 - Barge Way North of Swale Roundabout**

**2031 Baseline + K3 Operational + WKN Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	128	35	5	5	3.9%	14.1%	133	31	5	5	3.7%	15.9%	100	26	5	5	5.0%	18.9%
01.00	131	32	5	5	3.8%	15.6%	107	26	5	5	4.6%	18.9%	87	25	5	5	5.7%	19.7%
02.00	169	33	5	5	2.9%	15.0%	130	35	5	5	3.8%	14.1%	88	22	5	5	5.6%	22.4%
03.00	223	51	5	5	2.2%	9.6%	166	43	5	5	3.0%	11.4%	81	25	5	5	6.1%	19.7%
04.00	308	63	5	5	1.6%	7.9%	211	57	5	5	2.3%	8.8%	104	28	5	5	4.8%	17.6%
05.00	545	99	5	5	0.9%	5.0%	346	85	5	5	1.4%	5.8%	194	55	5	5	2.6%	9.1%
06.00	530	138	20	5	3.8%	3.6%	308	123	20	5	6.6%	4.0%	168	77	20	5	12.1%	6.4%
07.00	515	147	77	49	15.0%	33.3%	301	112	77	49	25.6%	43.5%	156	77	63	35	40.7%	44.9%
08.00	515	145	60	49	11.7%	33.9%	278	116	60	49	21.7%	42.2%	160	66	46	35	29.0%	52.2%
09.00	434	163	46	47	10.7%	28.9%	276	122	46	47	16.8%	38.6%	155	77	33	33	21.1%	42.3%
10.00	446	169	46	47	10.4%	27.8%	287	111	46	47	16.2%	42.3%	159	82	33	33	20.6%	39.9%
11.00	403	168	46	47	11.5%	27.9%	259	117	46	47	17.9%	40.2%	183	94	33	33	17.8%	34.5%
12.00	417	152	46	47	11.1%	31.0%	238	79	46	47	19.5%	59.3%	219	65	33	33	14.9%	50.2%
13.00	511	177	47	43	9.2%	24.6%	304	95	33	29	11.0%	30.6%	214	85	33	29	15.6%	34.2%
14.00	506	186	47	43	9.3%	23.4%	275	107	33	29	12.1%	27.1%	187	83	33	29	17.9%	35.1%
15.00	508	184	48	49	9.5%	26.6%	293	116	35	35	11.8%	29.7%	182	86	35	35	19.0%	40.2%
16.00	524	149	59	49	11.3%	32.9%	245	76	46	35	18.6%	45.4%	221	82	46	35	20.7%	42.1%
17.00	497	113	66	43	13.2%	38.5%	201	69	52	29	25.9%	42.1%	181	60	52	29	28.7%	48.5%
18.00	369	94	33	31	8.9%	32.7%	187	53	19	16	10.2%	31.2%	143	47	19	16	13.3%	35.3%
19.00	248	85	31	20	12.5%	23.5%	134	69	31	20	23.1%	28.8%	130	54	31	20	23.8%	36.9%
20.00	183	64	20	20	10.9%	31.1%	106	57	20	20	18.9%	35.2%	100	50	20	20	20.1%	40.2%
21.00	144	47	26	22	18.2%	47.0%	89	40	26	22	29.5%	54.6%	74	34	26	22	35.6%	64.3%
22.00	109	32	26	22	24.2%	68.6%	67	23	26	22	39.3%	94.9%	73	15	26	22	36.1%	146.0%
23.00	143	41	5	5	3.5%	12.1%	77	24	5	5	6.5%	20.5%	74	20	5	5	6.7%	24.7%
12 hr	5645	1845	624	545	11.1%	29.5%	3143	1174	541	459	17.2%	39.1%	2159	905	458	373	21.2%	41.2%
24 hr	8506	2566	783	668	9.2%	26.0%	5018	1788	700	582	13.9%	32.6%	3430	1337	617	496	18.0%	37.1%

**Link 3 - Barge Way East of Fleet End Roundabout**

**2031 Baseline + K3 Operational + WKN Operational (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	18	5	5	12.5%	27.1%	90	14	5	5	5.5%	35.3%	14	10	5	5	35.3%	49.6%
01.00	38	17	5	5	12.9%	29.4%	34	17	5	5	14.5%	29.0%	11	10	5	5	45.1%	49.6%
02.00	57	20	5	5	8.7%	25.4%	35	25	5	5	14.1%	19.7%	13	10	5	5	38.1%	49.6%
03.00	71	21	5	5	7.0%	23.3%	19	12	5	5	26.0%	41.3%	11	10	5	5	45.1%	49.6%
04.00	111	27	5	5	4.5%	18.2%	38	20	5	5	12.9%	24.7%	20	10	5	5	24.7%	49.6%
05.00	226	36	5	5	2.2%	13.9%	97	17	5	5	5.1%	29.0%	55	11	5	5	9.0%	45.1%
06.00	275	54	20	5	7.4%	9.1%	109	39	20	5	18.5%	12.6%	55	13	20	5	37.0%	38.1%
07.00	301	65	78	49	25.8%	75.0%	125	35	78	49	62.2%	138.7%	64	13	63	35	98.6%	265.5%
08.00	292	73	61	49	20.8%	66.7%	125	39	61	49	48.6%	124.4%	80	10	46	35	58.3%	346.1%
09.00	224	76	47	47	21.0%	61.8%	118	39	47	47	39.9%	119.3%	58	10	33	33	56.2%	326.1%
10.00	213	78	47	47	22.1%	59.9%	106	34	47	47	44.2%	136.9%	59	10	33	33	55.6%	326.1%
11.00	188	75	47	47	25.0%	62.5%	91	20	47	47	51.3%	233.4%	52	12	33	33	62.7%	271.2%
12.00	221	76	47	47	21.2%	61.6%	84	15	47	47	56.1%	311.8%	59	11	33	33	54.9%	296.2%
13.00	256	78	48	43	18.6%	56.0%	111	14	33	29	30.1%	207.2%	92	10	33	29	36.4%	291.0%
14.00	234	88	48	43	20.4%	49.5%	88	13	33	29	37.8%	223.3%	71	10	33	29	46.9%	291.0%
15.00	211	85	49	49	23.2%	57.8%	80	17	35	35	43.4%	202.6%	61	11	35	35	56.3%	314.3%
16.00	243	63	60	49	24.7%	77.2%	87	14	46	35	52.7%	246.4%	81	13	46	35	56.6%	265.5%
17.00	271	43	66	43	24.5%	100.6%	86	11	52	29	60.5%	264.3%	95	10	52	29	54.7%	291.0%
18.00	147	30	33	31	22.7%	102.6%	62	12	19	16	30.7%	137.0%	59	11	19	16	32.3%	149.6%
19.00	88	28	31	20	35.1%	70.3%	47	10	31	20	66.4%	199.8%	50	10	31	20	62.3%	199.8%
20.00	77	27	20	20	25.8%	75.1%	29	12	20	20	67.9%	166.2%	28	10	20	20	70.3%	199.8%
21.00	67	19	26	22	38.9%	113.9%	27	10	26	22	96.5%	219.8%	26	12	26	22	100.2%	182.8%
22.00	41	21	26	22	64.3%	105.0%	12	10	26	22	218.1%	219.8%	19	11	26	22	137.3%	199.6%
23.00	40	17	5	5	12.4%	29.0%	11	10	5	5	45.1%	49.6%	17	11	5	5	29.0%	45.1%
12 hr	2801	831	630	545	22.5%	65.6%	1163	265	544	459	46.8%	173.3%	831	131	458	373	55.2%	284.2%
24 hr	3932	1136	789	668	20.1%	58.8%	1712	462	703	582	41.0%	126.2%	1150	259	617	496	53.6%	191.5%

Link 4 - A249 South of Swale Way Junction

2031 Baseline + K3 Operational + WKN Operational (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	235	62	5	5	2.1%	8.0%	393	63	5	5	1.3%	7.9%	453	40	5	5	1.1%	12.3%
01.00	169	53	5	5	2.9%	9.3%	262	58	5	5	1.9%	8.6%	291	33	5	5	1.7%	14.9%
02.00	167	60	5	5	3.0%	8.3%	222	68	5	5	2.2%	7.3%	204	37	5	5	2.4%	13.6%
03.00	237	78	5	5	2.1%	6.4%	223	68	5	5	2.2%	7.3%	171	39	5	5	2.9%	12.8%
04.00	548	139	5	5	0.9%	3.6%	305	76	5	5	1.6%	6.5%	196	40	5	5	2.5%	12.5%
05.00	1339	239	5	5	0.4%	2.1%	695	140	5	5	0.7%	3.5%	409	75	5	5	1.2%	6.6%
06.00	2212	303	20	5	0.9%	1.6%	1041	181	20	5	1.9%	2.7%	625	109	20	5	3.1%	4.5%
07.00	3124	339	75	48	2.4%	14.1%	1415	193	75	48	5.3%	24.9%	801	106	62	35	7.8%	32.6%
08.00	2874	343	59	48	2.1%	14.0%	1803	204	59	48	3.3%	23.4%	1107	106	46	35	4.2%	32.6%
09.00	2192	357	46	46	2.1%	12.9%	2048	223	46	46	2.2%	20.6%	1628	147	33	33	2.0%	22.2%
10.00	2101	378	46	46	2.2%	12.1%	2343	211	46	46	2.0%	21.7%	2090	164	33	33	1.6%	19.9%
11.00	2136	369	46	46	2.2%	12.5%	2486	206	46	46	1.8%	22.3%	2312	162	33	33	1.4%	20.1%
12.00	2296	362	46	46	2.0%	12.7%	2678	183	46	46	1.7%	25.2%	2172	135	33	33	1.5%	24.2%
13.00	2329	380	46	42	2.0%	11.2%	2619	189	33	29	1.3%	15.4%	2133	144	33	29	1.6%	20.3%
14.00	2571	381	46	42	1.8%	11.1%	2400	174	33	29	1.4%	16.7%	2151	145	33	29	1.5%	20.1%
15.00	2860	376	48	48	1.7%	12.8%	2354	178	35	35	1.5%	19.5%	2124	156	35	35	1.6%	22.1%
16.00	3385	312	58	48	1.7%	15.4%	2296	151	45	35	2.0%	22.9%	2234	150	45	35	2.0%	23.1%
17.00	3658	272	64	42	1.8%	15.6%	2331	142	51	29	2.2%	20.6%	1944	136	51	29	2.6%	21.4%
18.00	2762	243	32	30	1.2%	12.2%	2033	129	19	16	0.9%	12.8%	1858	124	19	16	1.0%	13.3%
19.00	1846	184	30	20	1.7%	10.9%	1596	118	30	20	1.9%	17.0%	1543	111	30	20	2.0%	18.1%
20.00	1272	137	20	20	1.6%	14.6%	1159	86	20	20	1.7%	23.1%	1274	95	20	20	1.6%	21.1%
21.00	947	104	26	22	2.7%	21.2%	964	66	26	22	2.7%	33.3%	926	78	26	22	2.8%	28.0%
22.00	726	69	26	22	3.6%	32.0%	852	44	26	22	3.1%	50.0%	545	40	26	22	4.8%	55.1%
23.00	435	58	5	5	1.1%	8.5%	659	45	5	5	0.8%	11.1%	331	42	5	5	1.5%	11.9%
12 hr	32289	4112	614	533	1.9%	13.0%	26806	2183	534	453	2.0%	20.7%	22554	1674	454	373	2.0%	22.3%
24 hr	42420	5597	771	656	1.8%	11.7%	35179	3194	691	576	2.0%	18.0%	29521	2413	611	496	2.1%	20.6%



Link 5 - A249 between the A2 and M2

2031 Baseline + K3 Operational + WKN Operational (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	333	86	5	5	1.5%	5.8%	559	88	5	5	0.9%	5.7%	644	55	5	5	0.8%	9.0%
01.00	238	74	5	5	2.1%	6.7%	372	80	5	5	1.3%	6.2%	414	45	5	5	1.2%	11.0%
02.00	236	82	5	5	2.1%	6.0%	315	94	5	5	1.6%	5.3%	290	50	5	5	1.7%	10.0%
03.00	334	108	5	5	1.5%	4.6%	317	95	5	5	1.6%	5.2%	242	53	5	5	2.1%	9.3%
04.00	777	194	5	5	0.6%	2.6%	433	106	5	5	1.1%	4.7%	277	54	5	5	1.8%	9.2%
05.00	1873	323	5	5	0.3%	1.5%	971	185	5	5	0.5%	2.7%	562	92	5	5	0.9%	5.4%
06.00	3105	401	19	5	0.6%	1.2%	1451	232	19	5	1.3%	2.1%	854	129	19	5	2.2%	3.9%
07.00	4370	438	75	49	1.7%	11.2%	1968	243	75	49	3.8%	20.1%	1109	129	61	35	5.5%	26.9%
08.00	3947	444	60	49	1.5%	11.0%	2523	261	60	49	2.4%	18.7%	1544	130	45	35	2.9%	26.6%
09.00	3046	460	47	47	1.5%	10.2%	2898	283	47	47	1.6%	16.6%	2301	184	33	33	1.4%	17.7%
10.00	2911	487	47	47	1.6%	9.6%	3318	265	47	47	1.4%	17.7%	2988	206	33	33	1.1%	15.8%
11.00	2965	476	47	47	1.6%	9.9%	3536	258	47	47	1.3%	18.2%	3319	205	33	33	1.0%	15.9%
12.00	3193	475	47	47	1.5%	9.9%	3827	233	47	47	1.2%	20.1%	3125	174	33	33	1.0%	18.7%
13.00	3233	492	47	43	1.5%	8.8%	3719	234	33	29	0.9%	12.5%	3043	179	33	29	1.1%	16.3%
14.00	3573	498	47	43	1.3%	8.7%	3422	217	33	29	1.0%	13.4%	3060	184	33	29	1.1%	15.8%
15.00	4005	486	49	49	1.2%	10.1%	3349	218	35	35	1.0%	15.9%	3027	197	35	35	1.1%	17.6%
16.00	4747	401	59	49	1.2%	12.2%	3261	186	45	35	1.4%	18.6%	3177	193	45	35	1.4%	17.9%
17.00	5113	345	64	43	1.3%	12.6%	3322	173	50	29	1.5%	16.8%	2762	175	50	29	1.8%	16.6%
18.00	3899	310	33	31	0.8%	9.9%	2904	159	19	16	0.6%	10.4%	2653	161	19	16	0.7%	10.2%
19.00	2591	239	30	20	1.2%	8.3%	2248	148	30	20	1.3%	13.5%	2172	138	30	20	1.4%	14.5%
20.00	1785	175	20	20	1.1%	11.4%	1634	107	20	20	1.2%	18.7%	1798	118	20	20	1.1%	16.9%
21.00	1328	133	26	22	1.9%	16.5%	1361	82	26	22	1.9%	26.7%	1306	100	26	22	2.0%	22.1%
22.00	1021	95	26	22	2.5%	23.1%	1216	60	26	22	2.1%	36.4%	777	55	26	22	3.3%	40.3%
23.00	616	81	5	5	0.8%	6.2%	940	61	5	5	0.5%	8.1%	470	57	5	5	1.1%	8.7%
12 hr	45002	5311	623	545	1.4%	10.3%	38048	2731	537	459	1.4%	16.8%	32108	2118	451	373	1.4%	17.6%
24 hr	59239	7303	778	668	1.3%	9.2%	49865	4070	692	582	1.4%	14.3%	41914	3063	606	496	1.4%	16.2%

Link 6 - M2 West

2031 Baseline + K3 Operational + WKN Operational (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	425	108	3	3	0.7%	2.8%	708	120	3	3	0.4%	2.6%	866	66	3	3	0.4%	4.6%
01.00	323	100	3	3	0.9%	3.1%	469	103	3	3	0.7%	3.0%	530	63	3	3	0.6%	4.9%
02.00	338	114	3	3	0.9%	2.7%	395	96	3	3	0.8%	3.2%	351	48	3	3	0.9%	6.4%
03.00	464	157	3	3	0.7%	1.9%	416	117	3	3	0.7%	2.6%	312	68	3	3	1.0%	4.5%
04.00	1072	263	3	3	0.3%	1.2%	563	148	3	3	0.5%	2.1%	335	59	3	3	0.9%	5.2%
05.00	2827	446	3	3	0.1%	0.7%	1196	210	3	3	0.3%	1.5%	684	95	3	3	0.4%	3.2%
06.00	4264	524	7	3	0.2%	0.6%	1800	266	7	3	0.4%	1.2%	1026	123	7	3	0.7%	2.5%
07.00	5694	537	32	24	0.6%	4.4%	2513	300	32	24	1.3%	7.9%	1399	130	29	21	2.1%	16.5%
08.00	5262	589	27	24	0.5%	4.0%	3224	306	27	24	0.8%	7.8%	1870	133	25	21	1.3%	16.0%
09.00	4362	615	23	23	0.5%	3.7%	3619	304	23	23	0.6%	7.4%	2773	181	20	20	0.7%	11.1%
10.00	4023	602	23	23	0.6%	3.7%	4139	296	23	23	0.5%	7.6%	3753	210	20	20	0.5%	9.6%
11.00	4016	586	23	23	0.6%	3.8%	4589	276	23	23	0.5%	8.1%	4291	238	20	20	0.5%	8.5%
12.00	4365	626	23	23	0.5%	3.6%	4813	254	23	23	0.5%	8.9%	4624	212	20	20	0.4%	9.5%
13.00	4530	648	22	20	0.5%	3.1%	4733	252	19	18	0.4%	7.1%	4390	223	19	18	0.4%	8.0%
14.00	4821	647	22	20	0.4%	3.1%	4358	246	19	18	0.4%	7.3%	3999	221	19	18	0.5%	8.1%
15.00	5328	629	24	24	0.4%	3.8%	4185	229	21	21	0.5%	9.3%	3820	211	21	21	0.6%	10.1%
16.00	6269	506	27	24	0.4%	4.7%	4365	213	24	21	0.6%	10.0%	4229	200	24	21	0.6%	10.7%
17.00	6664	412	27	20	0.4%	4.9%	4142	182	24	18	0.6%	9.9%	3845	188	24	18	0.6%	9.6%
18.00	4984	347	13	13	0.3%	3.6%	3662	169	11	10	0.3%	6.0%	3397	154	11	10	0.3%	6.6%
19.00	3244	269	15	12	0.5%	4.6%	2803	137	15	12	0.5%	9.0%	2805	138	15	12	0.5%	8.9%
20.00	2268	184	12	12	0.5%	6.7%	2026	99	12	12	0.6%	12.5%	2118	100	12	12	0.6%	12.4%
21.00	1664	129	15	14	0.9%	10.5%	1572	80	15	14	0.9%	17.0%	1500	85	15	14	1.0%	16.0%
22.00	1335	109	15	14	1.1%	12.5%	1564	60	15	14	0.9%	22.5%	965	59	15	14	1.5%	23.1%
23.00	796	105	3	3	0.4%	2.9%	1210	66	3	3	0.3%	4.7%	553	76	3	3	0.6%	4.0%
12 hr	60318	6744	282	259	0.5%	3.8%	48343	3029	268	244	0.6%	8.1%	42392	2301	254	230	0.6%	10.0%
24 hr	79338	9252	368	335	0.5%	3.6%	63065	4530	354	321	0.6%	7.1%	54439	3279	339	306	0.6%	9.3%

Link 7 - M2 East

2031 Baseline + K3 Operational + WKN Operational (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.1%	0.3%	649	110	0	0	0.1%	0.3%	795	60	0	0	0.0%	0.6%
01.00	296	92	0	0	0.1%	0.4%	430	94	0	0	0.1%	0.4%	487	57	0	0	0.1%	0.6%
02.00	310	104	0	0	0.1%	0.3%	363	88	0	0	0.1%	0.4%	322	44	0	0	0.1%	0.8%
03.00	425	144	0	0	0.1%	0.2%	382	107	0	0	0.1%	0.3%	287	62	0	0	0.1%	0.5%
04.00	983	241	0	0	0.0%	0.1%	516	136	0	0	0.1%	0.2%	307	53	0	0	0.1%	0.6%
05.00	2574	394	0	0	0.0%	0.1%	1081	177	0	0	0.0%	0.2%	611	72	0	0	0.1%	0.5%
06.00	3881	453	2	0	0.1%	0.1%	1623	217	2	0	0.1%	0.2%	912	85	2	0	0.3%	0.4%
07.00	5178	469	8	4	0.2%	0.9%	2279	253	8	4	0.4%	1.6%	1254	97	6	2	0.5%	2.4%
08.00	4756	519	6	4	0.1%	0.8%	2929	260	6	4	0.2%	1.6%	1685	102	4	2	0.2%	2.3%
09.00	3954	537	4	4	0.1%	0.7%	3284	254	4	4	0.1%	1.6%	2509	141	2	2	0.1%	1.5%
10.00	3640	523	4	4	0.1%	0.8%	3757	244	4	4	0.1%	1.6%	3397	164	2	2	0.1%	1.3%
11.00	3636	509	4	4	0.1%	0.8%	4170	227	4	4	0.1%	1.8%	3891	191	2	2	0.1%	1.1%
12.00	3962	556	4	4	0.1%	0.7%	4383	217	4	4	0.1%	1.8%	4207	178	2	2	0.1%	1.2%
13.00	4103	567	4	4	0.1%	0.7%	4297	205	3	2	0.1%	0.9%	3981	179	3	2	0.1%	1.1%
14.00	4373	571	4	4	0.1%	0.7%	3959	204	3	2	0.1%	1.0%	3634	181	3	2	0.1%	1.1%
15.00	4834	550	4	4	0.1%	0.7%	3796	184	2	2	0.1%	1.3%	3462	168	2	2	0.1%	1.4%
16.00	5701	444	6	4	0.1%	0.9%	3970	176	4	2	0.1%	1.3%	3847	164	4	2	0.1%	1.4%
17.00	6054	359	7	4	0.1%	1.0%	3765	148	5	2	0.1%	1.3%	3498	154	5	2	0.1%	1.3%
18.00	4541	303	3	3	0.1%	1.0%	3333	142	1	1	0.0%	0.8%	3092	128	1	1	0.0%	0.9%
19.00	2953	228	3	1	0.1%	0.6%	2551	107	3	1	0.1%	1.3%	2553	108	3	1	0.1%	1.2%
20.00	2064	153	1	1	0.1%	0.9%	1844	75	1	1	0.1%	1.8%	1928	76	1	1	0.1%	1.8%
21.00	1515	108	2	1	0.1%	1.4%	1432	63	2	1	0.1%	2.3%	1366	68	2	1	0.2%	2.2%
22.00	1222	100	2	1	0.2%	1.5%	1435	55	2	1	0.1%	2.7%	886	54	2	1	0.2%	2.7%
23.00	730	96	0	0	0.0%	0.3%	1111	60	0	0	0.0%	0.6%	507	69	0	0	0.1%	0.5%
12 hr	54731	5906	58	46	0.1%	0.8%	43920	2515	47	36	0.1%	1.4%	38458	1846	37	25	0.1%	1.4%
24 hr	72075	8117	71	55	0.1%	0.7%	57338	3804	60	44	0.1%	1.2%	49419	2655	50	33	0.1%	1.3%

Link 8 - Swale Way north of Reams Way Junction

2031 Baseline + K3 Operational + WKN Operational (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	644	51	0	0	0.0%	0.0%	240	19	0	0	0.0%	0.0%	129	12	0	0	0.1%	0.0%
07.00	1413	84	0	0	0.0%	0.4%	348	22	0	0	0.1%	1.4%	154	12	0	0	0.1%	0.0%
08.00	1498	83	0	0	0.0%	0.4%	450	30	0	0	0.1%	1.1%	153	14	0	0	0.0%	0.0%
09.00	949	98	0	0	0.0%	0.3%	570	31	0	0	0.1%	1.0%	322	13	0	0	0.0%	0.0%
10.00	839	106	1	1	0.2%	1.2%	704	34	1	1	0.2%	3.9%	437	18	0	0	0.0%	0.0%
11.00	830	100	1	1	0.2%	1.3%	770	23	1	1	0.2%	5.7%	529	24	0	0	0.0%	0.0%
12.00	931	102	0	0	0.0%	0.3%	732	25	0	0	0.0%	1.3%	556	19	0	0	0.0%	0.0%
13.00	900	93	0	0	0.0%	0.3%	692	33	0	0	0.0%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	0	0	0.0%	0.3%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1187	86	0	0	0.0%	0.4%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	0	0	0.0%	0.4%	553	20	0	0	0.0%	0.0%	539	17	0	0	0.0%	0.0%
17.00	1298	61	0	0	0.0%	0.5%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	0	0	0.0%	0.5%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	483	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	258	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.1%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13171	1048	6	6	0.0%	0.6%	7129	303	4	4	0.1%	1.3%	5243	184	1	0	0.0%	0.0%
24 hr	16112	1358	7	6	0.0%	0.4%	8930	429	5	4	0.1%	0.9%	6616	280	1	0	0.0%	0.0%

Link 9 - Swale Way south of Reams Way Junction

2031 Baseline + K3 Operational + WKN Operational (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	656	57	0	0	0.0%	0.0%	273	20	0	0	0.0%	0.0%	133	13	0	0	0.1%	0.0%
07.00	1416	85	0	0	0.0%	0.4%	346	27	0	0	0.1%	1.2%	188	12	0	0	0.1%	0.0%
08.00	1431	93	0	0	0.0%	0.3%	484	26	0	0	0.1%	1.2%	155	7	0	0	0.0%	0.0%
09.00	917	105	0	0	0.0%	0.3%	574	35	0	0	0.1%	0.9%	324	15	0	0	0.0%	0.0%
10.00	828	107	1	1	0.2%	1.2%	716	25	1	1	0.2%	5.3%	474	15	0	0	0.0%	0.0%
11.00	850	108	1	1	0.2%	1.2%	775	35	1	1	0.2%	3.8%	506	17	0	0	0.0%	0.0%
12.00	917	98	0	0	0.0%	0.3%	749	34	0	0	0.0%	0.9%	522	15	0	0	0.0%	0.0%
13.00	949	92	0	0	0.0%	0.3%	622	32	0	0	0.0%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	0	0	0.0%	0.3%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	0	0	0.0%	0.3%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1432	81	0	0	0.0%	0.4%	547	19	0	0	0.0%	0.0%	440	14	0	0	0.0%	0.0%
17.00	1369	64	0	0	0.0%	0.5%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	0	0	0.0%	0.5%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	477	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.1%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13206	1090	6	6	0.0%	0.5%	6974	315	4	4	0.1%	1.2%	4860	194	1	0	0.0%	0.0%
24 hr	16130	1399	7	6	0.0%	0.4%	8846	423	5	4	0.1%	0.9%	6171	278	1	0	0.0%	0.0%

Link 10 - Swale Way south of Ridham Avenue Roundabout

2031 Baseline + K3 Operational + WKN Operational (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	565	37	0	0	0.0%	0.0%	197	12	0	0	0.0%	0.0%	99	5	0	0	0.1%	0.0%
07.00	1312	66	0	0	0.0%	0.5%	319	16	0	0	0.1%	2.0%	138	5	0	0	0.1%	0.0%
08.00	1401	70	0	0	0.0%	0.4%	421	17	0	0	0.1%	1.9%	139	4	0	0	0.0%	0.0%
09.00	869	82	0	0	0.0%	0.4%	541	18	0	0	0.1%	1.8%	312	4	0	0	0.0%	0.0%
10.00	741	87	1	1	0.2%	1.5%	681	16	1	1	0.2%	8.2%	404	8	0	0	0.0%	0.0%
11.00	739	75	1	1	0.2%	1.8%	763	11	1	1	0.2%	12.0%	518	9	0	0	0.0%	0.0%
12.00	822	81	0	0	0.0%	0.4%	717	15	0	0	0.0%	2.1%	540	11	0	0	0.0%	0.0%
13.00	833	73	0	0	0.0%	0.4%	658	16	0	0	0.0%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	76	0	0	0.0%	0.4%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	0	0	0.0%	0.4%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	0	0	0.0%	0.5%	532	13	0	0	0.0%	0.0%	521	11	0	0	0.0%	0.0%
17.00	1242	55	0	0	0.0%	0.6%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	49	0	0	0.0%	0.6%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	431	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.1%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12150	859	6	6	0.1%	0.7%	6804	168	4	4	0.1%	2.3%	5023	84	1	0	0.0%	0.0%
24 hr	14587	1052	7	6	0.0%	0.5%	8376	243	5	4	0.1%	1.6%	6217	120	1	0	0.0%	0.0%

Link 11 - A249 North of Swale Way Junction

2031 Baseline + K3 Operational + WKN Operational (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.1%	0.0%	436	30	0	0	0.1%	0.0%
07.00	3011	190	1	0	0.0%	0.2%	1138	81	1	0	0.1%	0.5%	581	26	1	0	0.1%	0.0%
08.00	2710	235	1	0	0.0%	0.2%	1542	83	1	0	0.0%	0.5%	871	31	0	0	0.0%	0.0%
09.00	2053	237	0	0	0.0%	0.2%	1887	76	0	0	0.0%	0.5%	1368	48	0	0	0.0%	0.0%
10.00	1965	234	0	0	0.0%	0.2%	2223	85	0	0	0.0%	0.5%	2020	41	0	0	0.0%	0.0%
11.00	2067	230	0	0	0.0%	0.2%	2492	70	0	0	0.0%	0.6%	2331	38	0	0	0.0%	0.0%
12.00	2199	227	0	0	0.0%	0.2%	2640	62	0	0	0.0%	0.6%	2543	44	0	0	0.0%	0.0%
13.00	2234	221	1	0	0.0%	0.2%	2539	61	0	0	0.0%	0.0%	2416	47	0	0	0.0%	0.0%
14.00	2349	239	1	0	0.0%	0.2%	2405	57	0	0	0.0%	0.0%	2133	42	0	0	0.0%	0.0%
15.00	2574	205	0	0	0.0%	0.2%	2333	45	0	0	0.0%	0.0%	2049	45	0	0	0.0%	0.0%
16.00	3163	169	1	0	0.0%	0.2%	2290	49	0	0	0.0%	0.0%	2114	41	0	0	0.0%	0.0%
17.00	3303	126	1	0	0.0%	0.3%	2188	36	1	0	0.0%	0.0%	1964	39	1	0	0.0%	0.0%
18.00	2284	83	0	0	0.0%	0.5%	1847	36	0	0	0.0%	0.0%	1763	43	0	0	0.0%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	0	0	0.0%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	0	0	0.0%	0.0%	822	25	0	0	0.0%	0.0%	703	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.1%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.1%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29912	2396	8	5	0.0%	0.2%	25525	741	5	2	0.0%	0.3%	22154	485	3	0	0.0%	0.0%
24 hr	37856	3118	9	5	0.0%	0.2%	32339	1116	7	2	0.0%	0.2%	27695	709	4	0	0.0%	0.0%

**Link 1 - Swale Way East of B2005 Groveshurst Roundabout**

**2031 Baseline + K3 Operational + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	165	56	0	0	0.0%	0.0%	184	50	0	0	0.0%	0.0%	189	20	0	0	0.0%	0.0%
01.00	153	51	0	0	0.0%	0.0%	163	60	0	0	0.0%	0.0%	162	19	0	0	0.0%	0.0%
02.00	169	47	0	0	0.0%	0.0%	133	50	0	0	0.0%	0.0%	102	18	0	0	0.0%	0.0%
03.00	247	71	0	0	0.0%	0.0%	170	51	0	0	0.0%	0.0%	87	20	0	0	0.0%	0.0%
04.00	371	85	0	0	0.0%	0.0%	209	66	0	0	0.0%	0.0%	105	21	0	0	0.0%	0.0%
05.00	950	140	0	0	0.0%	0.0%	535	98	0	0	0.0%	0.0%	294	52	0	0	0.0%	0.0%
06.00	1125	194	11	0	1.0%	0.0%	527	139	11	0	2.1%	0.0%	256	80	11	0	4.3%	0.0%
07.00	1914	241	48	24	2.5%	9.8%	706	153	48	24	6.8%	15.4%	293	79	41	17	14.2%	21.6%
08.00	2229	231	24	24	1.1%	10.3%	741	134	24	24	3.2%	17.6%	315	75	17	17	5.4%	22.7%
09.00	1350	254	22	22	1.6%	8.5%	803	157	22	22	2.7%	13.8%	325	83	15	15	4.6%	18.1%
10.00	1232	275	22	22	1.8%	7.9%	911	158	22	22	2.4%	13.7%	344	91	15	15	4.4%	16.4%
11.00	1258	262	22	22	1.7%	8.3%	940	153	22	22	2.3%	14.1%	564	89	15	15	2.7%	16.9%
12.00	1377	247	22	22	1.6%	8.8%	962	130	22	22	2.3%	16.7%	864	73	15	15	1.7%	20.7%
13.00	1494	270	18	18	1.2%	6.7%	924	126	12	12	1.2%	9.2%	532	87	12	12	2.2%	13.3%
14.00	1475	262	18	18	1.2%	6.9%	904	123	12	12	1.3%	9.4%	545	81	12	12	2.1%	14.1%
15.00	1596	258	24	24	1.5%	9.2%	916	129	17	17	1.9%	13.2%	546	84	17	17	3.1%	20.3%
16.00	1725	215	35	24	2.0%	11.0%	823	114	28	17	3.4%	15.0%	665	71	28	17	4.2%	24.1%
17.00	1837	179	29	18	1.6%	10.1%	839	99	22	12	2.7%	11.7%	695	68	22	12	3.2%	17.0%
18.00	1214	141	21	18	1.7%	12.9%	695	77	14	12	2.0%	15.0%	456	46	14	12	3.1%	25.2%
19.00	734	102	26	15	3.5%	14.8%	555	73	26	15	4.7%	20.6%	521	56	26	15	5.0%	26.7%
20.00	549	98	15	15	2.7%	15.3%	406	74	15	15	3.7%	20.4%	369	49	15	15	4.1%	30.8%
21.00	394	73	17	17	4.3%	23.3%	322	54	17	17	5.3%	31.4%	231	38	17	17	7.4%	44.4%
22.00	309	54	17	17	5.5%	31.4%	285	30	17	17	6.0%	56.5%	314	15	17	17	5.4%	113.8%
23.00	203	51	0	0	0.0%	0.0%	209	34	0	0	0.0%	0.0%	202	15	0	0	0.0%	0.0%
12 hr	18700	2835	303	254	1.6%	9.0%	10164	1552	263	214	2.6%	13.8%	6144	925	223	174	3.6%	18.8%
24 hr	24069	3857	389	318	1.6%	8.2%	13862	2333	349	278	2.5%	11.9%	8974	1328	309	238	3.4%	17.9%



Link 2 - Barge Way North of Swale Roundabout

2031 Baseline + K3 Operational + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	133	40	0	0	0.0%	0.0%	138	36	0	0	0.0%	0.0%	105	31	0	0	0.0%	0.0%
01.00	136	37	0	0	0.0%	0.0%	112	31	0	0	0.0%	0.0%	92	30	0	0	0.0%	0.0%
02.00	174	38	0	0	0.0%	0.0%	135	40	0	0	0.0%	0.0%	93	27	0	0	0.0%	0.0%
03.00	228	56	0	0	0.0%	0.0%	171	48	0	0	0.0%	0.0%	86	30	0	0	0.0%	0.0%
04.00	313	68	0	0	0.0%	0.0%	216	62	0	0	0.0%	0.0%	109	33	0	0	0.0%	0.0%
05.00	550	104	0	0	0.0%	0.0%	351	90	0	0	0.0%	0.0%	199	60	0	0	0.0%	0.0%
06.00	539	143	11	0	2.0%	0.0%	318	128	11	0	3.5%	0.0%	177	82	11	0	6.2%	0.0%
07.00	544	172	48	24	8.9%	13.9%	330	138	48	24	14.7%	17.3%	178	95	42	17	23.4%	18.0%
08.00	551	170	24	24	4.3%	14.1%	314	141	24	24	7.6%	16.9%	190	84	17	17	9.0%	20.3%
09.00	459	188	22	22	4.8%	11.6%	301	147	22	22	7.3%	14.9%	172	95	15	15	8.7%	15.9%
10.00	470	194	22	22	4.6%	11.3%	312	136	22	22	7.0%	16.1%	176	99	15	15	8.5%	15.1%
11.00	427	193	22	22	5.1%	11.3%	283	142	22	22	7.7%	15.4%	201	112	15	15	7.5%	13.4%
12.00	441	177	22	22	5.0%	12.4%	262	104	22	22	8.3%	21.0%	236	83	15	15	6.4%	18.2%
13.00	540	202	18	18	3.4%	9.1%	326	113	12	12	3.5%	10.2%	236	103	12	12	4.9%	11.2%
14.00	535	211	18	18	3.4%	8.7%	296	125	12	12	3.9%	9.2%	208	101	12	12	5.5%	11.5%
15.00	532	209	24	24	4.5%	11.4%	311	134	17	17	5.5%	12.7%	200	104	17	17	8.5%	16.4%
16.00	549	174	35	24	6.4%	13.7%	263	94	28	17	10.7%	18.2%	238	100	28	17	11.8%	17.0%
17.00	534	138	29	18	5.5%	13.3%	230	87	23	12	9.8%	13.3%	211	78	23	12	10.7%	14.8%
18.00	381	107	21	18	5.5%	17.2%	192	58	14	12	7.3%	20.0%	148	52	14	12	9.5%	22.3%
19.00	253	90	26	15	10.3%	16.7%	139	74	26	15	18.7%	20.2%	135	59	26	15	19.3%	25.4%
20.00	188	69	15	15	8.0%	21.7%	111	62	15	15	13.6%	24.3%	104	55	15	15	14.4%	27.5%
21.00	154	52	17	17	11.1%	32.9%	98	45	17	17	17.4%	37.6%	83	39	17	17	20.6%	43.5%
22.00	118	37	17	17	14.5%	46.0%	76	28	17	17	22.4%	60.5%	82	20	17	17	20.8%	85.0%
23.00	148	46	0	0	0.0%	0.0%	82	29	0	0	0.0%	0.0%	79	25	0	0	0.0%	0.0%
12 hr	5964	2134	305	256	5.1%	12.0%	3420	1417	264	215	7.7%	15.2%	2394	1103	223	174	9.3%	15.8%
24 hr	8898	2914	392	320	4.4%	11.0%	5367	2091	351	279	6.5%	13.4%	3737	1595	310	238	8.3%	14.9%

Link 3 - Barge Way East of Fleet End Roundabout																		
2031 Baseline + K3 Operational + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact																		
Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	45	23	0	0	0.0%	0.0%	95	19	0	0	0.0%	0.0%	19	15	0	0	0.0%	0.0%
01.00	43	22	0	0	0.0%	0.0%	39	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
02.00	62	24	0	0	0.0%	0.0%	40	30	0	0	0.0%	0.0%	18	15	0	0	0.0%	0.0%
03.00	75	26	0	0	0.0%	0.0%	24	17	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
04.00	116	32	0	0	0.0%	0.0%	43	25	0	0	0.0%	0.0%	25	15	0	0	0.0%	0.0%
05.00	231	41	0	0	0.0%	0.0%	102	22	0	0	0.0%	0.0%	60	16	0	0	0.0%	0.0%
06.00	284	59	11	0	3.9%	0.0%	119	44	11	0	9.3%	0.0%	64	18	11	0	17.3%	0.0%
07.00	330	90	48	24	14.7%	26.4%	154	60	48	24	31.4%	39.5%	86	31	42	17	48.3%	55.6%
08.00	329	98	24	24	7.2%	24.2%	162	64	24	24	14.7%	37.0%	109	28	17	17	15.6%	61.7%
09.00	249	101	22	22	8.8%	21.6%	143	64	22	22	15.3%	33.9%	76	28	15	15	19.9%	54.4%
10.00	238	103	22	22	9.2%	21.1%	131	59	22	22	16.6%	36.8%	76	28	15	15	19.7%	54.4%
11.00	213	100	22	22	10.3%	21.8%	117	45	22	22	18.8%	48.4%	70	30	15	15	21.6%	50.7%
12.00	247	101	22	22	8.9%	21.6%	109	40	22	22	20.1%	54.4%	77	29	15	15	19.5%	52.5%
13.00	286	103	18	18	6.4%	17.9%	133	32	12	12	8.7%	36.4%	113	28	12	12	10.1%	41.7%
14.00	263	113	18	18	7.0%	16.3%	110	31	12	12	10.5%	37.6%	93	28	12	12	12.4%	41.7%
15.00	236	110	24	24	10.1%	21.7%	97	35	17	17	17.5%	49.1%	79	29	17	17	21.5%	59.5%
16.00	268	89	35	24	13.0%	27.0%	104	32	28	17	26.9%	53.8%	98	31	28	17	28.6%	55.6%
17.00	308	68	29	18	9.5%	26.9%	115	29	23	12	19.5%	40.2%	124	28	23	12	18.1%	41.7%
18.00	159	42	21	18	13.1%	43.2%	67	17	14	12	21.0%	67.8%	64	16	14	12	22.0%	72.1%
19.00	93	33	26	15	27.9%	45.0%	52	15	26	15	50.4%	100.4%	55	15	26	15	47.6%	100.4%
20.00	82	32	15	15	18.2%	47.6%	34	17	15	15	43.7%	88.4%	33	15	15	15	45.0%	100.4%
21.00	77	24	17	17	22.2%	70.1%	36	15	17	17	46.8%	113.8%	35	17	17	17	48.1%	100.2%
22.00	50	26	17	17	34.1%	65.8%	21	15	17	17	80.2%	113.8%	28	16	17	17	60.1%	106.6%
23.00	45	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%	22	16	0	0	0.0%	0.0%
12 hr	3126	1119	305	256	9.8%	22.9%	1443	508	264	215	18.3%	42.4%	1066	330	223	174	21.0%	52.9%
24 hr	4329	1484	392	320	9.0%	21.6%	2064	765	351	279	17.0%	36.5%	1458	517	310	238	21.2%	46.1%

Link 4 - A249 South of Swale Way Junction

2031 Baseline + K3 Operational + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	240	67	0	0	0.0%	0.0%	398	68	0	0	0.0%	0.0%	458	45	0	0	0.0%	0.0%
01.00	174	58	0	0	0.0%	0.0%	267	63	0	0	0.0%	0.0%	296	38	0	0	0.0%	0.0%
02.00	172	65	0	0	0.0%	0.0%	227	73	0	0	0.0%	0.0%	209	42	0	0	0.0%	0.0%
03.00	242	83	0	0	0.0%	0.0%	228	73	0	0	0.0%	0.0%	176	44	0	0	0.0%	0.0%
04.00	553	144	0	0	0.0%	0.0%	310	81	0	0	0.0%	0.0%	201	45	0	0	0.0%	0.0%
05.00	1343	244	0	0	0.0%	0.0%	700	145	0	0	0.0%	0.0%	414	80	0	0	0.0%	0.0%
06.00	2221	308	11	0	0.5%	0.0%	1050	186	11	0	1.0%	0.0%	634	114	11	0	1.7%	0.0%
07.00	3153	363	47	23	1.5%	6.5%	1443	217	47	23	3.3%	10.8%	822	124	40	17	4.9%	13.8%
08.00	2910	368	23	23	0.8%	6.4%	1839	229	23	23	1.3%	10.3%	1136	124	17	17	1.5%	13.8%
09.00	2217	381	21	21	1.0%	5.6%	2072	247	21	21	1.0%	8.7%	1645	165	15	15	0.9%	9.1%
10.00	2126	403	21	21	1.0%	5.3%	2367	236	21	21	0.9%	9.1%	2107	181	15	15	0.7%	8.3%
11.00	2160	393	21	21	1.0%	5.5%	2511	231	21	21	0.9%	9.3%	2330	180	15	15	0.6%	8.4%
12.00	2321	387	21	21	0.9%	5.6%	2703	207	21	21	0.8%	10.4%	2190	152	15	15	0.7%	9.9%
13.00	2358	404	18	18	0.8%	4.4%	2640	206	12	12	0.4%	5.6%	2154	161	12	12	0.5%	7.1%
14.00	2600	405	18	18	0.7%	4.4%	2422	192	12	12	0.5%	6.0%	2173	162	12	12	0.5%	7.1%
15.00	2884	400	23	23	0.8%	5.9%	2372	195	17	17	0.7%	8.7%	2142	174	17	17	0.8%	9.8%
16.00	3409	336	34	23	1.0%	7.0%	2313	169	28	17	1.2%	10.1%	2252	167	28	17	1.2%	10.2%
17.00	3694	296	28	18	0.8%	6.1%	2360	159	22	12	0.9%	7.2%	1973	154	22	12	1.1%	7.5%
18.00	2774	255	20	18	0.7%	7.0%	2038	134	14	12	0.7%	8.6%	1863	129	14	12	0.7%	9.0%
19.00	1851	189	26	15	1.4%	7.9%	1601	123	26	15	1.6%	12.3%	1548	115	26	15	1.6%	13.0%
20.00	1277	142	15	15	1.2%	10.6%	1164	91	15	15	1.3%	16.4%	1279	100	15	15	1.2%	15.1%
21.00	956	109	17	17	1.8%	15.6%	973	71	17	17	1.7%	24.0%	935	83	17	17	1.8%	20.4%
22.00	735	74	17	17	2.3%	23.1%	861	49	17	17	2.0%	34.8%	554	45	17	17	3.1%	38.0%
23.00	440	63	0	0	0.0%	0.0%	664	50	0	0	0.0%	0.0%	336	47	0	0	0.0%	0.0%
12 hr	32605	4392	299	252	0.9%	5.7%	27081	2422	260	213	1.0%	8.8%	22787	1873	221	174	1.0%	9.3%
24 hr	42808	5937	384	316	0.9%	5.3%	35525	3494	345	277	1.0%	7.9%	29826	2671	306	238	1.0%	8.9%

Link 5 - A249 between the A2 and M2

2031 Baseline + K3 Operational + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	338	91	0	0	0.0%	0.0%	564	93	0	0	0.0%	0.0%	649	60	0	0	0.0%	0.0%
01.00	243	79	0	0	0.0%	0.0%	377	85	0	0	0.0%	0.0%	419	50	0	0	0.0%	0.0%
02.00	241	87	0	0	0.0%	0.0%	320	99	0	0	0.0%	0.0%	295	55	0	0	0.0%	0.0%
03.00	339	113	0	0	0.0%	0.0%	322	100	0	0	0.0%	0.0%	247	58	0	0	0.0%	0.0%
04.00	782	199	0	0	0.0%	0.0%	438	111	0	0	0.0%	0.0%	282	59	0	0	0.0%	0.0%
05.00	1878	328	0	0	0.0%	0.0%	976	190	0	0	0.0%	0.0%	567	97	0	0	0.0%	0.0%
06.00	3114	406	10	0	0.3%	0.0%	1459	237	10	0	0.7%	0.0%	863	134	10	0	1.2%	0.0%
07.00	4398	463	46	24	1.1%	5.2%	1997	268	46	24	2.3%	8.9%	1130	146	39	17	3.5%	11.6%
08.00	3983	469	24	24	0.6%	5.1%	2559	286	24	24	0.9%	8.3%	1572	148	17	17	1.1%	11.5%
09.00	3071	485	22	22	0.7%	4.5%	2923	308	22	22	0.7%	7.1%	2319	202	15	15	0.6%	7.4%
10.00	2936	512	22	22	0.7%	4.3%	3343	290	22	22	0.7%	7.5%	3005	223	15	15	0.5%	6.7%
11.00	2990	501	22	22	0.7%	4.4%	3561	283	22	22	0.6%	7.7%	3336	222	15	15	0.5%	6.8%
12.00	3219	500	22	22	0.7%	4.4%	3852	258	22	22	0.6%	8.5%	3142	192	15	15	0.5%	7.8%
13.00	3262	517	18	18	0.6%	3.5%	3740	251	12	12	0.3%	4.6%	3064	196	12	12	0.4%	5.9%
14.00	3602	523	18	18	0.5%	3.5%	3444	235	12	12	0.3%	4.9%	3082	202	12	12	0.4%	5.7%
15.00	4030	511	24	24	0.6%	4.7%	3367	235	17	17	0.5%	7.2%	3045	215	17	17	0.6%	7.9%
16.00	4772	426	34	24	0.7%	5.6%	3278	204	27	17	0.8%	8.4%	3195	211	27	17	0.8%	8.1%
17.00	5149	371	28	18	0.6%	5.0%	3351	191	22	12	0.6%	6.0%	2791	193	22	12	0.8%	6.0%
18.00	3911	323	21	18	0.5%	5.7%	2909	164	14	12	0.5%	7.0%	2658	166	14	12	0.5%	6.9%
19.00	2596	244	25	15	1.0%	6.1%	2253	153	25	15	1.1%	9.8%	2177	143	25	15	1.2%	10.5%
20.00	1790	180	15	15	0.8%	8.3%	1639	112	15	15	0.9%	13.4%	1803	123	15	15	0.8%	12.2%
21.00	1337	138	17	17	1.3%	12.3%	1370	87	17	17	1.2%	19.5%	1315	105	17	17	1.3%	16.3%
22.00	1030	100	17	17	1.7%	17.0%	1225	65	17	17	1.4%	26.0%	786	60	17	17	2.2%	28.6%
23.00	621	86	0	0	0.0%	0.0%	945	66	0	0	0.0%	0.0%	475	62	0	0	0.0%	0.0%
12 hr	45324	5600	301	256	0.7%	4.6%	38324	2974	260	215	0.7%	7.2%	32339	2316	219	174	0.7%	7.5%
24 hr	59632	7651	385	320	0.6%	4.2%	50213	4373	344	279	0.7%	6.4%	42217	3321	303	238	0.7%	7.2%

Link 6 - M2 West

2031 Baseline + K3 Operational + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	428	111	0	0	0.0%	0.0%	711	123	0	0	0.0%	0.0%	869	69	0	0	0.0%	0.0%
01.00	326	103	0	0	0.0%	0.0%	472	106	0	0	0.0%	0.0%	533	66	0	0	0.0%	0.0%
02.00	341	117	0	0	0.0%	0.0%	398	99	0	0	0.0%	0.0%	355	51	0	0	0.0%	0.0%
03.00	467	160	0	0	0.0%	0.0%	419	120	0	0	0.0%	0.0%	315	71	0	0	0.0%	0.0%
04.00	1075	267	0	0	0.0%	0.0%	566	151	0	0	0.0%	0.0%	338	62	0	0	0.0%	0.0%
05.00	2830	449	0	0	0.0%	0.0%	1199	213	0	0	0.0%	0.0%	687	98	0	0	0.0%	0.0%
06.00	4268	527	3	0	0.1%	0.0%	1804	269	3	0	0.2%	0.0%	1031	126	3	0	0.3%	0.0%
07.00	5707	549	18	12	0.3%	2.1%	2526	312	18	12	0.7%	3.7%	1411	140	17	11	1.2%	7.5%
08.00	5278	602	12	12	0.2%	1.9%	3240	318	12	12	0.4%	3.7%	1885	144	11	11	0.6%	7.3%
09.00	4374	627	10	10	0.2%	1.7%	3631	316	10	10	0.3%	3.3%	2784	192	9	9	0.3%	4.8%
10.00	4035	614	10	10	0.3%	1.7%	4151	308	10	10	0.3%	3.4%	3764	221	9	9	0.2%	4.2%
11.00	4028	598	10	10	0.3%	1.7%	4601	289	10	10	0.2%	3.6%	4302	249	9	9	0.2%	3.7%
12.00	4378	638	10	10	0.2%	1.6%	4825	266	10	10	0.2%	3.9%	4635	223	9	9	0.2%	4.2%
13.00	4543	660	8	8	0.2%	1.2%	4745	263	7	7	0.1%	2.7%	4402	234	7	7	0.2%	3.0%
14.00	4834	659	8	8	0.2%	1.3%	4370	257	7	7	0.2%	2.8%	4011	232	7	7	0.2%	3.1%
15.00	5340	641	12	12	0.2%	1.8%	4196	240	11	11	0.3%	4.4%	3831	222	11	11	0.3%	4.7%
16.00	6281	519	15	12	0.2%	2.2%	4375	224	14	11	0.3%	4.7%	4240	211	14	11	0.3%	5.0%
17.00	6679	425	11	8	0.2%	1.9%	4156	192	10	7	0.2%	3.7%	3860	198	10	7	0.3%	3.6%
18.00	4988	351	9	8	0.2%	2.3%	3665	172	8	7	0.2%	4.1%	3400	157	8	7	0.2%	4.5%
19.00	3247	272	12	9	0.4%	3.4%	2806	140	12	9	0.4%	6.6%	2808	141	12	9	0.4%	6.6%
20.00	2271	187	9	9	0.4%	5.0%	2029	102	9	9	0.5%	9.1%	2121	103	9	9	0.4%	9.0%
21.00	1668	132	11	11	0.6%	8.0%	1577	83	11	11	0.7%	12.7%	1505	88	11	11	0.7%	12.0%
22.00	1339	112	11	11	0.8%	9.4%	1568	63	11	11	0.7%	16.6%	970	62	11	11	1.1%	17.0%
23.00	800	108	0	0	0.0%	0.0%	1213	69	0	0	0.0%	0.0%	556	79	0	0	0.0%	0.0%
12 hr	60465	6882	135	121	0.2%	1.8%	48483	3159	128	114	0.3%	3.6%	42524	2424	121	107	0.3%	4.4%
24 hr	79526	9426	180	161	0.2%	1.7%	63245	4696	173	154	0.3%	3.3%	54612	3438	167	147	0.3%	4.3%

Link 7 - M2 East

2031 Baseline + K3 Operational + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.0%	0.0%	650	110	0	0	0.0%	0.0%	795	61	0	0	0.0%	0.0%
01.00	297	92	0	0	0.0%	0.0%	430	94	0	0	0.0%	0.0%	487	58	0	0	0.0%	0.0%
02.00	311	105	0	0	0.0%	0.0%	363	88	0	0	0.0%	0.0%	323	44	0	0	0.0%	0.0%
03.00	426	144	0	0	0.0%	0.0%	382	108	0	0	0.0%	0.0%	287	63	0	0	0.0%	0.0%
04.00	984	242	0	0	0.0%	0.0%	517	136	0	0	0.0%	0.0%	308	54	0	0	0.0%	0.0%
05.00	2575	395	0	0	0.0%	0.0%	1082	178	0	0	0.0%	0.0%	611	72	0	0	0.0%	0.0%
06.00	3882	453	1	0	0.0%	0.0%	1623	217	1	0	0.1%	0.0%	913	86	1	0	0.2%	0.0%
07.00	5181	471	5	2	0.1%	0.4%	2281	255	5	2	0.2%	0.8%	1256	98	4	1	0.4%	1.2%
08.00	4760	521	2	2	0.0%	0.4%	2932	262	2	2	0.1%	0.8%	1687	103	1	1	0.1%	1.1%
09.00	3956	539	2	2	0.0%	0.3%	3286	256	2	2	0.1%	0.7%	2510	142	1	1	0.0%	0.7%
10.00	3642	525	2	2	0.1%	0.4%	3759	246	2	2	0.0%	0.8%	3398	165	1	1	0.0%	0.6%
11.00	3638	512	2	2	0.1%	0.4%	4173	229	2	2	0.0%	0.8%	3893	192	1	1	0.0%	0.5%
12.00	3964	558	2	2	0.0%	0.3%	4385	219	2	2	0.0%	0.9%	4208	179	1	1	0.0%	0.6%
13.00	4105	569	2	2	0.0%	0.3%	4299	207	1	1	0.0%	0.4%	3983	180	1	1	0.0%	0.4%
14.00	4376	573	2	2	0.0%	0.3%	3960	206	1	1	0.0%	0.4%	3635	182	1	1	0.0%	0.4%
15.00	4836	552	2	2	0.0%	0.4%	3797	185	1	1	0.0%	0.6%	3464	169	1	1	0.0%	0.7%
16.00	5703	446	3	2	0.1%	0.4%	3971	177	3	1	0.1%	0.6%	3849	165	3	1	0.1%	0.7%
17.00	6058	361	3	2	0.1%	0.5%	3768	150	2	1	0.1%	0.5%	3501	155	2	1	0.1%	0.5%
18.00	4542	305	2	2	0.0%	0.5%	3333	142	1	1	0.0%	0.5%	3093	128	1	1	0.0%	0.6%
19.00	2953	228	3	1	0.1%	0.4%	2552	107	3	1	0.1%	0.9%	2553	108	3	1	0.1%	0.9%
20.00	2064	154	1	1	0.0%	0.7%	1844	76	1	1	0.1%	1.3%	1928	76	1	1	0.1%	1.3%
21.00	1516	108	1	1	0.1%	1.1%	1433	63	1	1	0.1%	1.8%	1367	68	1	1	0.1%	1.7%
22.00	1223	100	1	1	0.1%	1.1%	1436	55	1	1	0.1%	2.1%	887	54	1	1	0.1%	2.1%
23.00	731	96	0	0	0.0%	0.0%	1111	60	0	0	0.0%	0.0%	508	70	0	0	0.0%	0.0%
12 hr	54761	5931	29	22	0.1%	0.4%	43944	2534	23	17	0.1%	0.7%	38476	1859	18	12	0.0%	0.6%
24 hr	72110	8146	36	26	0.0%	0.3%	57367	3827	31	21	0.1%	0.6%	49443	2672	26	16	0.1%	0.6%

Link 8 - Swale Way north of Reams Way Junction

2031 Baseline + K3 Operational + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	644	51	0	0	0.0%	0.0%	240	19	0	0	0.0%	0.0%	129	12	0	0	0.0%	0.0%
07.00	1414	85	0	0	0.0%	0.0%	349	22	0	0	0.0%	0.0%	154	12	0	0	0.1%	0.0%
08.00	1499	83	0	0	0.0%	0.0%	450	30	0	0	0.0%	0.0%	153	14	0	0	0.0%	0.0%
09.00	950	99	0	0	0.0%	0.0%	571	31	0	0	0.0%	0.0%	322	13	0	0	0.0%	0.0%
10.00	839	106	1	1	0.1%	0.9%	704	34	1	1	0.1%	2.9%	437	18	0	0	0.0%	0.0%
11.00	830	100	1	1	0.1%	1.0%	770	23	1	1	0.1%	4.3%	529	24	0	0	0.0%	0.0%
12.00	932	102	0	0	0.0%	0.0%	732	25	0	0	0.0%	0.0%	556	19	0	0	0.0%	0.0%
13.00	900	93	0	0	0.0%	0.0%	692	33	0	0	0.0%	0.0%	655	17	0	0	0.0%	0.0%
14.00	1077	97	0	0	0.0%	0.0%	614	23	0	0	0.0%	0.0%	467	13	0	0	0.0%	0.0%
15.00	1188	86	0	0	0.0%	0.0%	595	29	0	0	0.0%	0.0%	490	16	0	0	0.0%	0.0%
16.00	1421	76	0	0	0.0%	0.0%	553	20	0	0	0.0%	0.0%	539	17	0	0	0.0%	0.0%
17.00	1299	61	0	0	0.0%	0.0%	611	19	0	0	0.0%	0.0%	531	9	0	0	0.0%	0.0%
18.00	827	63	0	0	0.0%	0.0%	490	15	0	0	0.0%	0.0%	410	9	0	0	0.0%	0.0%
19.00	483	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	259	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.0%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13175	1052	2	2	0.0%	0.2%	7131	304	2	2	0.0%	0.7%	5243	184	0	0	0.0%	0.0%
24 hr	16116	1362	2	2	0.0%	0.1%	8933	431	2	2	0.0%	0.5%	6617	280	0	0	0.0%	0.0%

Link 9 - Swale Way south of Reams Way Junction

2031 Baseline + K3 Operational + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	656	57	0	0	0.0%	0.0%	273	20	0	0	0.0%	0.0%	133	13	0	0	0.0%	0.0%
07.00	1416	85	0	0	0.0%	0.0%	347	27	0	0	0.0%	0.0%	188	12	0	0	0.1%	0.0%
08.00	1432	94	0	0	0.0%	0.0%	484	26	0	0	0.0%	0.0%	155	7	0	0	0.0%	0.0%
09.00	917	105	0	0	0.0%	0.0%	575	35	0	0	0.0%	0.0%	324	15	0	0	0.0%	0.0%
10.00	828	107	1	1	0.1%	0.9%	716	25	1	1	0.1%	4.0%	474	15	0	0	0.0%	0.0%
11.00	850	108	1	1	0.1%	0.9%	775	35	1	1	0.1%	2.8%	506	17	0	0	0.0%	0.0%
12.00	917	98	0	0	0.0%	0.0%	749	34	0	0	0.0%	0.0%	522	15	0	0	0.0%	0.0%
13.00	950	92	0	0	0.0%	0.0%	622	32	0	0	0.0%	0.0%	497	21	0	0	0.0%	0.0%
14.00	1079	102	0	0	0.0%	0.0%	546	24	0	0	0.0%	0.0%	450	20	0	0	0.0%	0.0%
15.00	1159	93	0	0	0.0%	0.0%	523	21	0	0	0.0%	0.0%	415	18	0	0	0.0%	0.0%
16.00	1433	82	0	0	0.0%	0.0%	547	19	0	0	0.0%	0.0%	440	14	0	0	0.0%	0.0%
17.00	1370	64	0	0	0.0%	0.0%	596	21	0	0	0.0%	0.0%	487	21	0	0	0.0%	0.0%
18.00	858	63	0	0	0.0%	0.0%	496	17	0	0	0.0%	0.0%	402	16	0	0	0.0%	0.0%
19.00	477	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.0%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13210	1093	2	2	0.0%	0.2%	6976	316	2	2	0.0%	0.6%	4860	194	0	0	0.0%	0.0%
24 hr	16134	1403	2	2	0.0%	0.1%	8849	425	2	2	0.0%	0.5%	6172	278	0	0	0.0%	0.0%



Link 10 - Swale Way south of Ridham Avenue Roundabout

2031 Baseline + K3 Operational + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	565	37	0	0	0.0%	0.0%	197	12	0	0	0.0%	0.0%	99	5	0	0	0.1%	0.0%
07.00	1313	67	0	0	0.0%	0.0%	319	16	0	0	0.0%	0.0%	138	5	0	0	0.1%	0.0%
08.00	1401	71	0	0	0.0%	0.0%	421	17	0	0	0.0%	0.0%	139	4	0	0	0.0%	0.0%
09.00	869	83	0	0	0.0%	0.0%	542	18	0	0	0.0%	0.0%	312	4	0	0	0.0%	0.0%
10.00	741	88	1	1	0.1%	1.1%	681	16	1	1	0.1%	6.1%	404	8	0	0	0.0%	0.0%
11.00	740	75	1	1	0.1%	1.3%	764	11	1	1	0.1%	8.8%	518	9	0	0	0.0%	0.0%
12.00	823	81	0	0	0.0%	0.0%	717	15	0	0	0.0%	0.0%	540	11	0	0	0.0%	0.0%
13.00	833	74	0	0	0.0%	0.0%	658	16	0	0	0.0%	0.0%	639	9	0	0	0.0%	0.0%
14.00	971	77	0	0	0.0%	0.0%	607	13	0	0	0.0%	0.0%	466	5	0	0	0.0%	0.0%
15.00	1101	78	0	0	0.0%	0.0%	556	13	0	0	0.0%	0.0%	467	8	0	0	0.0%	0.0%
16.00	1353	65	0	0	0.0%	0.0%	532	13	0	0	0.0%	0.0%	521	11	0	0	0.0%	0.0%
17.00	1242	56	0	0	0.0%	0.0%	545	12	0	0	0.0%	0.0%	490	7	0	0	0.0%	0.0%
18.00	767	50	0	0	0.0%	0.0%	464	8	0	0	0.0%	0.0%	389	3	0	0	0.0%	0.0%
19.00	431	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.0%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12154	863	2	2	0.0%	0.2%	6806	170	2	2	0.0%	1.2%	5023	84	0	0	0.0%	0.0%
24 hr	14591	1055	2	2	0.0%	0.2%	8379	245	2	2	0.0%	0.8%	6218	120	0	0	0.0%	0.0%

Link 11 - A249 North of Swale Way Junction

2031 Baseline + K3 Operational + WKN Operational (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact		2031 Baseline		Development + Development		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.0%	0.0%	436	30	0	0	0.1%	0.0%
07.00	3012	191	1	0	0.0%	0.1%	1139	82	1	0	0.1%	0.2%	581	26	1	0	0.1%	0.0%
08.00	2710	235	0	0	0.0%	0.1%	1543	83	0	0	0.0%	0.2%	872	31	0	0	0.0%	0.0%
09.00	2053	238	0	0	0.0%	0.1%	1887	76	0	0	0.0%	0.2%	1368	48	0	0	0.0%	0.0%
10.00	1965	234	0	0	0.0%	0.1%	2223	85	0	0	0.0%	0.2%	2020	41	0	0	0.0%	0.0%
11.00	2067	230	0	0	0.0%	0.1%	2492	71	0	0	0.0%	0.3%	2331	38	0	0	0.0%	0.0%
12.00	2199	227	0	0	0.0%	0.1%	2640	63	0	0	0.0%	0.3%	2543	44	0	0	0.0%	0.0%
13.00	2235	222	0	0	0.0%	0.1%	2540	61	0	0	0.0%	0.0%	2417	47	0	0	0.0%	0.0%
14.00	2350	239	0	0	0.0%	0.1%	2406	57	0	0	0.0%	0.0%	2134	42	0	0	0.0%	0.0%
15.00	2574	205	0	0	0.0%	0.1%	2333	45	0	0	0.0%	0.0%	2049	45	0	0	0.0%	0.0%
16.00	3164	170	0	0	0.0%	0.1%	2290	49	0	0	0.0%	0.0%	2114	41	0	0	0.0%	0.0%
17.00	3303	126	0	0	0.0%	0.2%	2189	36	0	0	0.0%	0.0%	1964	39	0	0	0.0%	0.0%
18.00	2284	83	0	0	0.0%	0.2%	1847	36	0	0	0.0%	0.0%	1763	43	0	0	0.0%	0.0%
19.00	1532	66	0	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	0	0	0.0%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	0	0	0.0%	0.0%	822	25	0	0	0.0%	0.0%	704	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.0%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.0%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29916	2398	4	2	0.0%	0.1%	25528	742	2	1	0.0%	0.2%	22156	485	1	0	0.0%	0.0%
24 hr	37860	3121	4	2	0.0%	0.1%	32342	1117	3	1	0.0%	0.1%	27697	709	2	0	0.0%	0.0%

**APPENDIX AH: 2031 BASELINE, K3 OPERATIONAL AND 2031 CUMULATIVE DEVELOPMENT PERCENTAGE IMPACT TABLE**

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**Link 1 - Swale Way East of B2005 Groveshurst Roundabout**

**2031 Baseline + K3 Operational + 2031 Cumulative (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	160	51	5	5	3.1%	9.7%	179	45	5	5	2.8%	10.9%	184	15	5	5	2.7%	32.9%
01.00	148	46	5	5	3.3%	10.8%	158	56	5	5	3.1%	8.9%	157	14	5	5	3.2%	35.3%
02.00	164	42	5	5	3.0%	11.8%	128	45	5	5	3.9%	10.9%	97	13	5	5	5.1%	38.1%
03.00	242	66	5	5	2.1%	7.5%	165	46	5	5	3.0%	10.7%	82	15	5	5	6.0%	32.9%
04.00	366	80	5	5	1.4%	6.2%	204	61	5	5	2.4%	8.2%	100	16	5	5	5.0%	30.9%
05.00	945	135	17	14	1.8%	10.6%	530	93	17	14	3.3%	15.3%	289	47	17	14	6.0%	30.5%
06.00	1116	189	34	22	3.0%	11.6%	517	134	34	22	6.5%	16.4%	247	75	34	22	13.6%	29.5%
07.00	1885	216	193	48	10.2%	22.3%	677	128	62	44	9.2%	33.9%	271	61	54	35	20.0%	57.3%
08.00	2193	206	248	59	11.3%	28.8%	705	110	76	42	10.7%	38.7%	286	57	67	34	23.5%	59.0%
09.00	1326	229	208	57	15.7%	24.8%	778	133	59	45	7.6%	33.6%	307	65	50	36	16.3%	55.1%
10.00	1207	251	203	63	16.8%	25.2%	886	133	61	46	6.9%	34.8%	326	74	53	38	16.4%	51.0%
11.00	1233	237	200	56	16.2%	23.6%	915	129	57	46	6.2%	35.4%	547	71	49	37	9.0%	51.7%
12.00	1352	222	211	50	15.6%	22.6%	937	105	53	39	5.7%	37.2%	847	55	45	31	5.3%	55.4%
13.00	1465	245	225	57	15.4%	23.2%	903	108	64	37	7.1%	34.4%	510	69	64	37	12.6%	53.8%
14.00	1446	237	207	53	14.3%	22.3%	882	105	57	34	6.4%	32.7%	523	64	56	34	10.7%	53.6%
15.00	1571	234	193	51	12.3%	21.9%	898	111	53	38	5.9%	33.7%	529	66	52	38	9.9%	56.8%
16.00	1700	190	199	45	11.7%	23.8%	805	96	51	33	6.3%	34.8%	647	53	50	33	7.8%	63.0%
17.00	1800	155	186	44	10.3%	28.2%	810	81	62	32	7.6%	39.7%	666	50	61	32	9.2%	64.3%
18.00	1202	129	83	27	6.9%	20.9%	690	72	29	17	4.2%	23.2%	451	41	28	17	6.2%	40.7%
19.00	729	97	28	19	3.9%	19.9%	550	68	28	19	5.2%	28.2%	516	51	28	19	5.5%	37.5%
20.00	544	93	21	17	3.8%	18.1%	401	69	21	17	5.2%	24.6%	364	44	21	17	5.7%	38.6%
21.00	384	68	22	15	5.8%	21.5%	313	49	22	15	7.1%	29.7%	221	33	22	15	10.1%	43.8%
22.00	300	49	13	9	4.3%	17.5%	276	25	13	9	4.6%	34.2%	305	10	13	9	4.2%	86.2%
23.00	198	46	5	5	2.5%	10.8%	204	29	5	5	2.4%	17.0%	197	10	5	5	2.5%	49.6%
12 hr	18381	2550	2355	611	12.8%	23.9%	9886	1311	683	453	6.9%	34.5%	5909	727	631	401	10.7%	55.2%
24 hr	23678	3513	2521	736	10.6%	20.9%	13512	2032	848	578	6.3%	28.5%	8667	1070	796	526	9.2%	49.2%

Link 2 - Barge Way North of Swale Roundabout																		
2031 Baseline + K3 Operational + 2031 Cumulative (K3 (0-75MW)) Percentage Impact																		
Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	128	35	5	5	3.9%	14.1%	133	31	5	5	3.7%	15.9%	100	26	5	5	5.0%	18.9%
01.00	131	32	5	5	3.8%	15.6%	107	26	5	5	4.6%	18.9%	87	25	5	5	5.7%	19.7%
02.00	169	33	5	5	2.9%	15.0%	130	35	5	5	3.8%	14.1%	88	22	5	5	5.6%	22.4%
03.00	223	51	5	5	2.2%	9.6%	166	43	5	5	3.0%	11.4%	81	25	5	5	6.1%	19.7%
04.00	308	63	5	5	1.6%	7.9%	211	57	5	5	2.3%	8.8%	104	28	5	5	4.8%	17.6%
05.00	545	99	5	5	0.9%	5.0%	346	85	5	5	1.4%	5.8%	194	55	5	5	2.6%	9.1%
06.00	530	138	9	5	1.7%	3.6%	308	123	9	5	3.0%	4.0%	168	77	9	5	5.5%	6.4%
07.00	515	147	34	30	6.6%	20.5%	301	112	34	30	11.3%	26.9%	156	77	25	21	16.4%	27.6%
08.00	515	145	42	30	8.1%	20.9%	278	116	42	30	15.0%	26.1%	160	66	33	21	20.7%	32.0%
09.00	434	163	29	29	6.6%	17.9%	276	122	29	29	10.4%	24.0%	155	77	20	20	13.1%	26.2%
10.00	446	169	29	29	6.4%	17.3%	287	111	29	29	10.0%	26.3%	159	82	20	20	12.8%	24.8%
11.00	403	168	29	29	7.1%	17.4%	259	117	29	29	11.1%	25.0%	183	94	20	20	11.1%	21.4%
12.00	417	152	29	29	6.9%	19.3%	238	79	29	29	12.1%	36.9%	219	65	20	20	9.3%	31.2%
13.00	511	177	34	30	6.6%	16.9%	304	95	25	21	8.3%	22.0%	214	85	25	21	11.7%	24.6%
14.00	506	186	34	30	6.6%	16.1%	275	107	25	21	9.2%	19.5%	187	83	25	21	13.5%	25.2%
15.00	508	184	30	30	5.9%	16.4%	293	116	21	21	7.2%	18.2%	182	86	21	21	11.7%	24.7%
16.00	524	149	30	30	5.7%	20.3%	245	76	21	21	8.7%	27.9%	221	82	21	21	9.6%	25.8%
17.00	497	113	41	30	8.3%	26.5%	201	69	33	21	16.3%	30.3%	181	60	33	21	18.1%	34.9%
18.00	369	94	17	17	4.5%	18.3%	187	53	8	8	4.4%	15.7%	143	47	8	8	5.8%	17.8%
19.00	248	85	8	8	3.1%	9.0%	134	69	8	8	5.7%	11.0%	130	54	8	8	5.8%	14.1%
20.00	183	64	8	8	4.2%	11.8%	106	57	8	8	7.2%	13.4%	100	50	8	8	7.7%	15.3%
21.00	144	47	13	9	8.9%	18.4%	89	40	13	9	14.5%	21.4%	74	34	13	9	17.5%	25.2%
22.00	109	32	13	9	11.8%	26.9%	67	23	13	9	19.3%	37.2%	73	15	13	9	17.7%	57.2%
23.00	143	41	5	5	3.5%	12.1%	77	24	5	5	6.5%	20.5%	74	20	5	5	6.7%	24.7%
12 hr	5645	1845	375	345	6.6%	18.7%	3143	1174	324	291	10.3%	24.8%	2159	905	273	237	12.7%	26.2%
24 hr	8506	2566	460	417	5.4%	16.2%	5018	1788	409	363	8.2%	20.3%	3430	1337	358	309	10.4%	23.1%

**Link 3 - Barge Way East of Fleet End Roundabout**

**2031 Baseline + K3 Operational + 2031 Cumulative (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	18	5	5	12.5%	27.1%	90	14	5	5	5.5%	35.3%	14	10	5	5	35.3%	49.6%
01.00	38	17	5	5	12.9%	29.4%	34	17	5	5	14.5%	29.0%	11	10	5	5	45.1%	49.6%
02.00	57	20	5	5	8.7%	25.4%	35	25	5	5	14.1%	19.7%	13	10	5	5	38.1%	49.6%
03.00	71	21	5	5	7.0%	23.3%	19	12	5	5	26.0%	41.3%	11	10	5	5	45.1%	49.6%
04.00	111	27	5	5	4.5%	18.2%	38	20	5	5	12.9%	24.7%	20	10	5	5	24.7%	49.6%
05.00	226	36	5	5	2.2%	13.9%	97	17	5	5	5.1%	29.0%	55	11	5	5	9.0%	45.1%
06.00	275	54	9	5	3.4%	9.1%	109	39	9	5	8.4%	12.6%	55	13	9	5	16.8%	38.1%
07.00	301	65	34	30	11.4%	46.3%	125	35	34	30	27.5%	85.6%	64	13	25	21	39.6%	163.0%
08.00	292	73	42	30	14.4%	41.2%	125	39	42	30	33.6%	76.8%	80	10	33	21	41.6%	212.5%
09.00	224	76	29	29	13.1%	38.4%	118	39	29	29	24.8%	74.2%	58	10	20	20	34.9%	202.5%
10.00	213	78	29	29	13.7%	37.3%	106	34	29	29	27.5%	85.2%	59	10	20	20	34.5%	202.5%
11.00	188	75	29	29	15.6%	38.9%	91	20	29	29	31.9%	145.2%	52	12	20	20	39.0%	168.4%
12.00	221	76	29	29	13.2%	38.3%	84	15	29	29	34.9%	194.0%	59	11	20	20	34.1%	183.9%
13.00	256	78	34	30	13.3%	38.5%	111	14	25	21	22.7%	148.9%	92	10	25	21	27.5%	209.2%
14.00	234	88	34	30	14.6%	34.1%	88	13	25	21	28.5%	160.5%	71	10	25	21	35.4%	209.2%
15.00	211	85	30	30	14.3%	35.7%	80	17	21	21	26.7%	124.4%	61	11	21	21	34.6%	192.9%
16.00	243	63	30	30	12.4%	47.6%	87	14	21	21	24.5%	151.3%	81	13	21	21	26.4%	163.0%
17.00	271	43	42	30	15.4%	69.2%	86	11	33	21	38.2%	190.0%	95	10	33	21	34.5%	209.2%
18.00	147	30	17	17	11.8%	57.4%	62	12	8	8	13.4%	68.9%	59	11	8	8	14.1%	75.3%
19.00	88	28	8	8	8.6%	26.8%	47	10	8	8	16.3%	76.2%	50	10	8	8	15.3%	76.2%
20.00	77	27	8	8	9.8%	28.6%	29	12	8	8	25.9%	63.4%	28	10	8	8	26.8%	76.2%
21.00	67	19	13	9	19.1%	44.6%	27	10	13	9	47.3%	86.2%	26	12	13	9	49.1%	71.7%
22.00	41	21	13	9	31.5%	41.2%	12	10	13	9	106.9%	86.2%	19	11	13	9	67.3%	78.3%
23.00	40	17	5	5	12.4%	29.0%	11	10	5	5	45.1%	49.6%	17	11	5	5	29.0%	45.1%
12 hr	2801	831	381	345	13.6%	41.5%	1163	265	327	291	28.1%	109.9%	831	131	273	237	32.9%	180.8%
24 hr	3932	1136	466	417	11.8%	36.7%	1712	462	412	363	24.1%	78.6%	1150	259	358	309	31.2%	119.3%

**Link 4 - A249 South of Swale Way Junction**

**2031 Baseline + K3 Operational + 2031 Cumulative (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	235	62	5	5	2.1%	8.0%	393	63	5	5	1.3%	7.9%	453	40	5	5	1.1%	12.3%
01.00	169	53	5	5	2.9%	9.3%	262	58	5	5	1.9%	8.6%	291	33	5	5	1.7%	14.9%
02.00	167	60	5	5	3.0%	8.3%	222	68	5	5	2.2%	7.3%	204	37	5	5	2.4%	13.6%
03.00	237	78	5	5	2.1%	6.4%	223	68	5	5	2.2%	7.3%	171	39	5	5	2.9%	12.8%
04.00	548	139	5	5	0.9%	3.6%	305	76	5	5	1.6%	6.5%	196	40	5	5	2.5%	12.5%
05.00	1339	239	17	14	1.3%	6.0%	695	140	17	14	2.5%	10.2%	409	75	17	14	4.2%	19.0%
06.00	2212	303	33	22	1.5%	7.3%	1041	181	33	22	3.2%	12.2%	625	109	33	22	5.3%	20.1%
07.00	3124	339	496	48	15.9%	14.1%	1415	193	88	43	6.2%	22.4%	801	106	134	35	16.7%	33.0%
08.00	2874	343	752	59	26.2%	17.2%	1803	204	181	42	10.0%	20.6%	1107	106	205	34	18.6%	31.9%
09.00	2192	357	505	57	23.0%	15.8%	2048	223	335	44	16.4%	19.8%	1628	147	250	36	15.4%	24.5%
10.00	2101	378	451	63	21.5%	16.6%	2343	211	364	46	15.5%	21.7%	2090	164	533	38	25.5%	23.0%
11.00	2136	369	448	56	21.0%	15.1%	2486	206	420	45	16.9%	21.9%	2312	162	589	37	25.5%	22.7%
12.00	2296	362	504	50	22.0%	13.8%	2678	183	506	39	18.9%	21.2%	2172	135	565	31	26.0%	22.6%
13.00	2329	380	538	57	23.1%	14.9%	2619	189	490	37	18.7%	19.7%	2133	144	544	37	25.5%	25.9%
14.00	2571	381	557	53	21.7%	13.8%	2400	174	522	34	21.8%	19.6%	2151	145	365	34	17.0%	23.7%
15.00	2860	376	608	51	21.3%	13.5%	2354	178	487	38	20.7%	21.1%	2124	156	432	38	20.3%	24.0%
16.00	3385	312	607	45	17.9%	14.4%	2296	151	383	33	16.7%	22.1%	2234	150	330	33	14.8%	22.3%
17.00	3658	272	710	43	19.4%	15.9%	2331	142	488	32	20.9%	22.7%	1944	136	310	32	15.9%	23.6%
18.00	2762	243	552	27	20.0%	11.0%	2033	129	405	17	19.9%	12.9%	1858	124	288	17	15.5%	13.4%
19.00	1846	184	28	19	1.5%	10.5%	1596	118	28	19	1.8%	16.4%	1543	111	28	19	1.8%	17.4%
20.00	1272	137	23	17	1.8%	12.4%	1159	86	21	17	1.8%	19.6%	1274	95	21	17	1.6%	17.9%
21.00	947	104	24	15	2.5%	14.1%	964	66	22	15	2.3%	22.2%	926	78	22	15	2.4%	18.6%
22.00	726	69	13	9	1.7%	12.5%	852	44	13	9	1.5%	19.6%	545	40	13	9	2.3%	21.6%
23.00	435	58	5	5	1.1%	8.5%	659	45	5	5	0.8%	11.1%	331	42	5	5	1.5%	11.9%
12 hr	32289	4112	6728	606	20.8%	14.7%	26806	2183	4670	451	17.4%	20.6%	22554	1674	4545	401	20.2%	24.0%
24 hr	42420	5597	6895	732	16.3%	13.1%	35179	3194	4833	576	13.7%	18.0%	29521	2413	4708	526	15.9%	21.8%

Link 5 - A249 between the A2 and M2

2031 Baseline + K3 Operational + 2031 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	333	86	5	5	1.5%	5.8%	559	88	5	5	0.9%	5.7%	644	55	5	5	0.8%	9.0%
01.00	238	74	5	5	2.1%	6.7%	372	80	5	5	1.3%	6.2%	414	45	5	5	1.2%	11.0%
02.00	236	82	5	5	2.1%	6.0%	315	94	5	5	1.6%	5.3%	290	50	5	5	1.7%	10.0%
03.00	334	108	5	5	1.5%	4.6%	317	95	5	5	1.6%	5.2%	242	53	5	5	2.1%	9.3%
04.00	777	194	5	5	0.6%	2.6%	433	106	5	5	1.1%	4.7%	277	54	5	5	1.8%	9.2%
05.00	1873	323	17	14	0.9%	4.4%	971	185	17	14	1.8%	7.7%	562	92	17	14	3.0%	15.5%
06.00	3105	401	33	22	1.0%	5.5%	1451	232	33	22	2.2%	9.5%	854	129	33	22	3.8%	17.1%
07.00	4370	438	700	49	16.0%	11.1%	1968	243	104	44	5.3%	18.1%	1109	129	180	35	16.3%	27.2%
08.00	3947	444	1138	60	28.8%	13.4%	2523	261	247	43	9.8%	16.4%	1544	130	292	34	18.9%	26.0%
09.00	3046	460	694	57	22.8%	12.5%	2898	283	507	45	17.5%	15.9%	2301	184	374	36	16.2%	19.5%
10.00	2911	487	607	63	20.9%	13.0%	3318	265	551	47	16.6%	17.6%	2988	206	829	38	27.7%	18.3%
11.00	2965	476	607	56	20.5%	11.8%	3536	258	644	46	18.2%	17.8%	3319	205	921	37	27.8%	18.0%
12.00	3193	475	687	51	21.5%	10.7%	3827	233	782	39	20.4%	16.9%	3125	174	878	31	28.1%	17.5%
13.00	3233	492	736	57	22.8%	11.6%	3719	234	747	37	20.1%	15.9%	3043	179	832	37	27.4%	20.8%
14.00	3573	498	793	53	22.2%	10.7%	3422	217	804	34	23.5%	15.8%	3060	184	552	34	18.0%	18.6%
15.00	4005	486	899	51	22.4%	10.6%	3349	218	749	38	22.4%	17.2%	3027	197	658	38	21.7%	19.0%
16.00	4747	401	870	46	18.3%	11.4%	3261	186	580	33	17.8%	18.0%	3177	193	499	33	15.7%	17.3%
17.00	5113	345	1013	44	19.8%	12.7%	3322	173	745	32	22.4%	18.5%	2762	175	459	32	16.6%	18.4%
18.00	3899	310	843	27	21.6%	8.8%	2904	159	633	17	21.8%	10.5%	2653	161	446	17	16.8%	10.3%
19.00	2591	239	29	19	1.1%	8.0%	2248	148	28	19	1.2%	13.0%	2172	138	28	19	1.3%	14.0%
20.00	1785	175	29	17	1.6%	9.6%	1634	107	20	17	1.3%	15.8%	1798	118	20	17	1.1%	14.3%
21.00	1328	133	29	15	2.2%	11.0%	1361	82	22	15	1.6%	17.7%	1306	100	22	15	1.7%	14.7%
22.00	1021	95	12	9	1.2%	9.1%	1216	60	12	9	1.0%	14.3%	777	55	12	9	1.6%	15.8%
23.00	616	81	5	5	0.8%	6.2%	940	61	5	5	0.5%	8.1%	470	57	5	5	1.1%	8.7%
12 hr	45002	5311	9587	615	21.3%	11.6%	38048	2731	7093	455	18.6%	16.7%	32108	2118	6921	401	21.6%	18.9%
24 hr	59239	7303	9766	740	16.5%	10.1%	49865	4070	7255	580	14.5%	14.3%	41914	3063	7083	526	16.9%	17.2%



Link 6 - M2 West

2031 Baseline + K3 Operational + 2031 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	425	108	3	3	0.7%	2.8%	708	120	3	3	0.4%	2.6%	866	66	3	3	0.4%	4.6%
01.00	323	100	3	3	0.9%	3.1%	469	103	3	3	0.7%	3.0%	530	63	3	3	0.6%	4.9%
02.00	338	114	3	3	0.9%	2.7%	395	96	3	3	0.8%	3.2%	351	48	3	3	0.9%	6.4%
03.00	464	157	3	3	0.7%	1.9%	416	117	3	3	0.7%	2.6%	312	68	3	3	1.0%	4.5%
04.00	1072	263	3	3	0.3%	1.2%	563	148	3	3	0.5%	2.1%	335	59	3	3	0.9%	5.2%
05.00	2827	446	10	9	0.3%	2.0%	1196	210	10	9	0.8%	4.2%	684	95	10	9	1.4%	9.3%
06.00	4264	524	17	14	0.4%	2.6%	1800	266	17	14	0.9%	5.1%	1026	123	17	14	1.6%	11.0%
07.00	5694	537	214	26	3.8%	4.8%	2513	300	41	23	1.6%	7.7%	1399	130	64	22	4.6%	16.7%
08.00	5262	589	340	33	6.5%	5.6%	3224	306	82	22	2.5%	7.3%	1870	133	96	21	5.1%	15.6%
09.00	4362	615	216	31	5.0%	5.1%	3619	304	157	24	4.3%	7.8%	2773	181	120	22	4.3%	12.2%
10.00	4023	602	193	35	4.8%	5.8%	4139	296	170	25	4.1%	8.4%	3753	210	252	23	6.7%	11.1%
11.00	4016	586	191	31	4.7%	5.2%	4589	276	197	24	4.3%	8.8%	4291	238	278	23	6.5%	9.6%
12.00	4365	626	212	27	4.9%	4.3%	4813	254	235	20	4.9%	8.0%	4624	212	264	19	5.7%	8.9%
13.00	4530	648	228	31	5.0%	4.8%	4733	252	228	23	4.8%	9.1%	4390	223	253	23	5.8%	10.3%
14.00	4821	647	242	29	5.0%	4.5%	4358	246	244	21	5.6%	8.6%	3999	221	171	21	4.3%	9.6%
15.00	5328	629	271	28	5.1%	4.4%	4185	229	229	23	5.5%	10.1%	3820	211	203	23	5.3%	11.0%
16.00	6269	506	262	24	4.2%	4.8%	4365	213	179	21	4.1%	9.7%	4229	200	155	21	3.7%	10.3%
17.00	6664	412	305	23	4.6%	5.6%	4142	182	226	20	5.5%	10.9%	3845	188	144	20	3.7%	10.6%
18.00	4984	347	248	13	5.0%	3.7%	3662	169	188	10	5.1%	6.1%	3397	154	134	10	4.0%	6.6%
19.00	3244	269	14	12	0.4%	4.4%	2803	137	14	12	0.5%	8.7%	2805	138	14	12	0.5%	8.6%
20.00	2268	184	12	10	0.5%	5.7%	2026	99	12	10	0.6%	10.6%	2118	100	12	10	0.5%	10.5%
21.00	1664	129	11	9	0.7%	7.0%	1572	80	11	9	0.7%	11.3%	1500	85	11	9	0.7%	10.7%
22.00	1335	109	6	5	0.5%	4.9%	1564	60	6	5	0.4%	8.8%	965	59	6	5	0.7%	9.1%
23.00	796	105	3	3	0.4%	2.9%	1210	66	3	3	0.3%	4.7%	553	76	3	3	0.6%	4.0%
12 hr	60318	6744	2924	331	4.8%	4.9%	48343	3029	2176	256	4.5%	8.5%	42392	2301	2132	247	5.0%	10.8%
24 hr	79338	9252	3012	408	3.8%	4.4%	63065	4530	2264	334	3.6%	7.4%	54439	3279	2221	325	4.1%	9.9%

Link 7 - M2 East

2031 Baseline + K3 Operational + 2031 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.1%	0.3%	649	110	0	0	0.1%	0.3%	795	60	0	0	0.0%	0.6%
01.00	296	92	0	0	0.1%	0.4%	430	94	0	0	0.1%	0.4%	487	57	0	0	0.1%	0.6%
02.00	310	104	0	0	0.1%	0.3%	363	88	0	0	0.1%	0.4%	322	44	0	0	0.1%	0.8%
03.00	425	144	0	0	0.1%	0.2%	382	107	0	0	0.1%	0.3%	287	62	0	0	0.1%	0.5%
04.00	983	241	0	0	0.0%	0.1%	516	136	0	0	0.1%	0.2%	307	53	0	0	0.1%	0.6%
05.00	2574	394	1	1	0.1%	0.2%	1081	177	1	1	0.1%	0.5%	611	72	1	1	0.2%	1.3%
06.00	3881	453	3	1	0.1%	0.3%	1623	217	3	1	0.2%	0.7%	912	85	3	1	0.3%	1.7%
07.00	5178	469	49	4	1.0%	0.8%	2279	253	8	3	0.4%	1.4%	1254	97	11	2	0.9%	2.4%
08.00	4756	519	75	5	1.6%	0.9%	2929	260	17	3	0.6%	1.3%	1685	102	18	2	1.1%	2.2%
09.00	3954	537	50	4	1.3%	0.8%	3284	254	28	4	0.9%	1.4%	2509	141	21	2	0.8%	1.7%
10.00	3640	523	45	5	1.2%	0.9%	3757	244	30	4	0.8%	1.5%	3397	164	43	3	1.3%	1.5%
11.00	3636	509	45	4	1.2%	0.8%	4170	227	35	4	0.8%	1.6%	3891	191	48	2	1.2%	1.3%
12.00	3962	556	50	4	1.3%	0.7%	4383	217	42	3	0.9%	1.5%	4207	178	46	2	1.1%	1.1%
13.00	4103	567	53	4	1.3%	0.8%	4297	205	40	2	0.9%	1.2%	3981	179	45	2	1.1%	1.4%
14.00	4373	571	55	4	1.3%	0.7%	3959	204	43	2	1.1%	1.1%	3634	181	30	2	0.8%	1.3%
15.00	4834	550	59	4	1.2%	0.7%	3796	184	39	3	1.0%	1.4%	3462	168	35	3	1.0%	1.5%
16.00	5701	444	59	4	1.0%	0.8%	3970	176	31	2	0.8%	1.3%	3847	164	27	2	0.7%	1.4%
17.00	6054	359	65	3	1.1%	1.0%	3765	148	41	2	1.1%	1.5%	3498	154	26	2	0.7%	1.4%
18.00	4541	303	48	2	1.1%	0.8%	3333	142	33	1	1.0%	0.8%	3092	128	24	1	0.8%	0.9%
19.00	2953	228	3	1	0.1%	0.6%	2551	107	3	1	0.1%	1.2%	2553	108	3	1	0.1%	1.2%
20.00	2064	153	2	1	0.1%	0.7%	1844	75	2	1	0.1%	1.5%	1928	76	2	1	0.1%	1.5%
21.00	1515	108	2	1	0.1%	0.9%	1432	63	2	1	0.1%	1.6%	1366	68	2	1	0.1%	1.4%
22.00	1222	100	1	1	0.1%	0.6%	1435	55	1	1	0.1%	1.0%	886	54	1	1	0.1%	1.1%
23.00	730	96	0	0	0.0%	0.3%	1111	60	0	0	0.0%	0.6%	507	69	0	0	0.1%	0.5%
12 hr	54731	5906	652	47	1.2%	0.8%	43920	2515	386	34	0.9%	1.3%	38458	1846	374	27	1.0%	1.5%
24 hr	72075	8117	666	56	0.9%	0.7%	57338	3804	400	42	0.7%	1.1%	49419	2655	387	35	0.8%	1.3%

**Link 8 - Swale Way north of Reams Way Junction**

**2031 Baseline + K3 Operational + 2031 Cumulative (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	644	51	0	0	0.0%	0.0%	240	19	0	0	0.0%	0.0%	129	12	0	0	0.0%	0.0%
07.00	1413	84	3	0	0.2%	0.4%	348	22	1	0	0.2%	1.4%	154	12	1	0	0.3%	0.0%
08.00	1498	83	4	0	0.3%	0.4%	450	30	1	0	0.2%	1.1%	153	14	1	0	0.6%	0.0%
09.00	949	98	3	0	0.3%	0.3%	570	31	2	0	0.3%	1.0%	322	13	1	0	0.3%	0.0%
10.00	839	106	2	0	0.3%	0.3%	704	34	2	0	0.3%	0.9%	437	18	3	0	0.6%	0.0%
11.00	830	100	2	0	0.3%	0.3%	770	23	2	0	0.3%	1.4%	529	24	3	0	0.5%	0.0%
12.00	931	102	3	0	0.3%	0.3%	732	25	3	0	0.4%	1.3%	556	19	3	0	0.5%	0.0%
13.00	900	93	3	0	0.3%	0.3%	692	33	2	0	0.3%	0.0%	655	17	3	0	0.4%	0.0%
14.00	1077	97	3	0	0.3%	0.3%	614	23	3	0	0.4%	0.0%	467	13	2	0	0.4%	0.0%
15.00	1187	86	3	0	0.3%	0.4%	595	29	2	0	0.4%	0.0%	490	16	2	0	0.4%	0.0%
16.00	1421	76	3	0	0.2%	0.4%	553	20	2	0	0.3%	0.0%	539	17	2	0	0.3%	0.0%
17.00	1298	61	4	0	0.3%	0.5%	611	19	2	0	0.4%	0.0%	531	9	1	0	0.3%	0.0%
18.00	827	63	3	0	0.4%	0.5%	490	15	2	0	0.4%	0.0%	410	9	1	0	0.3%	0.0%
19.00	483	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	258	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.1%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13171	1048	35	4	0.3%	0.4%	7129	303	24	2	0.3%	0.6%	5243	184	21	0	0.4%	0.0%
24 hr	16112	1358	35	4	0.2%	0.3%	8930	429	24	2	0.3%	0.4%	6616	280	22	0	0.3%	0.0%

**Link 9 - Swale Way south of Reams Way Junction**

**2031 Baseline + K3 Operational + 2031 Cumulative (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	656	57	0	0	0.0%	0.0%	273	20	0	0	0.0%	0.0%	133	13	0	0	0.0%	0.0%
07.00	1416	85	3	0	0.2%	0.4%	346	27	1	0	0.2%	1.2%	188	12	1	0	0.3%	0.0%
08.00	1431	93	4	0	0.3%	0.3%	484	26	1	0	0.2%	1.2%	155	7	1	0	0.6%	0.0%
09.00	917	105	3	0	0.3%	0.3%	574	35	2	0	0.3%	0.9%	324	15	1	0	0.3%	0.0%
10.00	828	107	2	0	0.3%	0.3%	716	25	2	0	0.3%	1.3%	474	15	3	0	0.5%	0.0%
11.00	850	108	2	0	0.3%	0.3%	775	35	2	0	0.3%	0.9%	506	17	3	0	0.6%	0.0%
12.00	917	98	3	0	0.3%	0.3%	749	34	3	0	0.4%	0.9%	522	15	3	0	0.5%	0.0%
13.00	949	92	3	0	0.3%	0.3%	622	32	2	0	0.4%	0.0%	497	21	3	0	0.5%	0.0%
14.00	1079	102	3	0	0.3%	0.3%	546	24	3	0	0.5%	0.0%	450	20	2	0	0.4%	0.0%
15.00	1159	93	3	0	0.3%	0.3%	523	21	2	0	0.4%	0.0%	415	18	2	0	0.5%	0.0%
16.00	1432	81	3	0	0.2%	0.4%	547	19	2	0	0.3%	0.0%	440	14	2	0	0.3%	0.0%
17.00	1369	64	4	0	0.3%	0.5%	596	21	2	0	0.4%	0.0%	487	21	1	0	0.3%	0.0%
18.00	858	63	3	0	0.3%	0.5%	496	17	2	0	0.4%	0.0%	402	16	1	0	0.3%	0.0%
19.00	477	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.1%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13206	1090	35	4	0.3%	0.3%	6974	315	24	2	0.3%	0.6%	4860	194	21	0	0.4%	0.0%
24 hr	16130	1399	35	4	0.2%	0.3%	8846	423	24	2	0.3%	0.4%	6171	278	22	0	0.3%	0.0%

**Link 10 - Swale Way south of Ridham Avenue Roundabout**

**2031 Baseline + K3 Operational + 2031 Cumulative (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	565	37	0	0	0.0%	0.0%	197	12	0	0	0.0%	0.0%	99	5	0	0	0.1%	0.0%
07.00	1312	66	3	0	0.2%	0.5%	319	16	1	0	0.2%	2.0%	138	5	1	0	0.4%	0.0%
08.00	1401	70	4	0	0.3%	0.4%	421	17	1	0	0.2%	1.9%	139	4	1	0	0.6%	0.0%
09.00	869	82	3	0	0.3%	0.4%	541	18	2	0	0.3%	1.8%	312	4	1	0	0.4%	0.0%
10.00	741	87	2	0	0.3%	0.4%	681	16	2	0	0.3%	2.0%	404	8	3	0	0.6%	0.0%
11.00	739	75	2	0	0.3%	0.4%	763	11	2	0	0.3%	2.9%	518	9	3	0	0.5%	0.0%
12.00	822	81	3	0	0.3%	0.4%	717	15	3	0	0.4%	2.1%	540	11	3	0	0.5%	0.0%
13.00	833	73	3	0	0.3%	0.4%	658	16	2	0	0.4%	0.0%	639	9	3	0	0.4%	0.0%
14.00	971	76	3	0	0.3%	0.4%	607	13	3	0	0.4%	0.0%	466	5	2	0	0.4%	0.0%
15.00	1101	78	3	0	0.3%	0.4%	556	13	2	0	0.4%	0.0%	467	8	2	0	0.4%	0.0%
16.00	1353	65	3	0	0.2%	0.5%	532	13	2	0	0.3%	0.0%	521	11	2	0	0.3%	0.0%
17.00	1242	55	4	0	0.3%	0.6%	545	12	2	0	0.4%	0.0%	490	7	1	0	0.3%	0.0%
18.00	767	49	3	0	0.4%	0.6%	464	8	2	0	0.4%	0.0%	389	3	1	0	0.4%	0.0%
19.00	431	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.1%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12150	859	35	4	0.3%	0.4%	6804	168	24	2	0.3%	1.1%	5023	84	21	0	0.4%	0.0%
24 hr	14587	1052	35	4	0.2%	0.4%	8376	243	24	2	0.3%	0.8%	6217	120	22	0	0.3%	0.0%

**Link 11 - A249 North of Swale Way Junction**

**2031 Baseline + K3 Operational + 2031 Cumulative (K3 (0-75MW)) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.0%	0.0%	436	30	0	0	0.1%	0.0%
07.00	3011	190	91	0	3.0%	0.1%	1138	81	7	0	0.6%	0.3%	581	26	22	0	3.8%	0.0%
08.00	2710	235	162	0	6.0%	0.1%	1542	83	29	0	1.9%	0.3%	871	31	36	0	4.2%	0.0%
09.00	2053	237	87	0	4.2%	0.1%	1887	76	72	0	3.8%	0.3%	1368	48	52	0	3.8%	0.0%
10.00	1965	234	73	0	3.7%	0.1%	2223	85	79	0	3.6%	0.3%	2020	41	125	0	6.2%	0.0%
11.00	2067	230	74	0	3.6%	0.1%	2492	70	95	0	3.8%	0.4%	2331	38	140	0	6.0%	0.0%
12.00	2199	227	85	0	3.9%	0.1%	2640	62	119	0	4.5%	0.4%	2543	44	138	0	5.4%	0.0%
13.00	2234	221	92	0	4.1%	0.1%	2539	61	114	0	4.5%	0.0%	2416	47	128	0	5.3%	0.0%
14.00	2349	239	105	0	4.5%	0.1%	2405	57	123	0	5.1%	0.0%	2133	42	82	0	3.8%	0.0%
15.00	2574	205	126	0	4.9%	0.1%	2333	45	116	0	5.0%	0.0%	2049	45	102	0	5.0%	0.0%
16.00	3163	169	119	0	3.7%	0.1%	2290	49	90	0	3.9%	0.0%	2114	41	74	0	3.5%	0.0%
17.00	3303	126	142	0	4.3%	0.2%	2188	36	113	0	5.2%	0.0%	1964	39	67	0	3.4%	0.0%
18.00	2284	83	128	0	5.6%	0.3%	1847	36	100	0	5.4%	0.0%	1763	43	69	0	3.9%	0.0%
19.00	1532	66	1	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	2	0	0.2%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	2	0	0.2%	0.0%	822	25	0	0	0.1%	0.0%	703	22	0	0	0.1%	0.0%
22.00	615	23	0	0	0.1%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.1%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29912	2396	1283	3	4.3%	0.1%	25525	741	1057	1	4.1%	0.2%	22154	485	1035	0	4.7%	0.0%
24 hr	37856	3118	1289	3	3.4%	0.1%	32339	1116	1059	1	3.3%	0.1%	27695	709	1036	0	3.7%	0.0%

**Link 1 - Swale Way East of B2005 Groveshurst Roundabout**

**2031 Baseline + K3 Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	165	56	0	0	0.0%	0.0%	184	50	0	0	0.0%	0.0%	189	20	0	0	0.0%	0.0%
01.00	153	51	0	0	0.0%	0.0%	163	60	0	0	0.0%	0.0%	162	19	0	0	0.0%	0.0%
02.00	169	47	0	0	0.0%	0.0%	133	50	0	0	0.0%	0.0%	102	18	0	0	0.0%	0.0%
03.00	247	71	0	0	0.0%	0.0%	170	51	0	0	0.0%	0.0%	87	20	0	0	0.0%	0.0%
04.00	371	85	0	0	0.0%	0.0%	209	66	0	0	0.0%	0.0%	105	21	0	0	0.0%	0.0%
05.00	950	140	12	9	1.3%	6.6%	535	98	12	9	2.3%	9.5%	294	52	12	9	4.2%	18.0%
06.00	1125	194	24	17	2.2%	8.8%	527	139	24	17	4.6%	12.3%	256	80	24	17	9.5%	21.4%
07.00	1914	241	164	24	8.6%	9.8%	706	153	33	19	4.7%	12.3%	293	79	32	17	11.0%	22.1%
08.00	2229	231	212	34	9.5%	14.9%	741	134	39	18	5.3%	13.2%	315	75	38	16	12.0%	21.7%
09.00	1350	254	183	32	13.6%	12.6%	803	157	34	20	4.3%	12.6%	325	83	32	18	10.0%	22.1%
10.00	1232	275	178	38	14.5%	13.9%	911	158	36	22	4.0%	13.6%	344	91	36	20	10.4%	22.0%
11.00	1258	262	175	31	13.9%	11.9%	940	153	32	21	3.4%	13.5%	564	89	32	19	5.6%	21.7%
12.00	1377	247	187	25	13.6%	10.3%	962	130	29	14	3.0%	11.0%	864	73	28	13	3.2%	17.8%
13.00	1494	270	196	32	13.1%	11.9%	924	126	42	20	4.6%	15.6%	532	87	42	20	8.0%	22.6%
14.00	1475	262	178	28	12.1%	10.8%	904	123	35	17	3.8%	13.6%	545	81	34	17	6.2%	20.5%
15.00	1596	258	168	26	10.6%	10.2%	916	129	35	20	3.8%	15.5%	546	84	35	20	6.4%	23.8%
16.00	1725	215	174	20	10.1%	9.5%	823	114	33	16	4.0%	13.9%	665	71	33	16	4.9%	22.4%
17.00	1837	179	149	19	8.1%	10.5%	839	99	33	15	3.9%	14.8%	695	68	32	15	4.6%	21.5%
18.00	1214	141	71	15	5.9%	10.5%	695	77	24	12	3.4%	15.2%	456	46	23	12	5.1%	25.5%
19.00	734	102	24	14	3.2%	14.0%	555	73	24	14	4.2%	19.5%	521	56	24	14	4.5%	25.4%
20.00	549	98	16	12	2.9%	12.2%	406	74	16	12	3.9%	16.2%	369	49	16	12	4.3%	24.5%
21.00	394	73	13	10	3.3%	13.2%	322	54	13	10	4.1%	17.8%	231	38	13	10	5.7%	25.2%
22.00	309	54	4	4	1.2%	6.8%	285	30	4	4	1.3%	12.1%	314	15	4	4	1.2%	24.4%
23.00	203	51	0	0	0.0%	0.0%	209	34	0	0	0.0%	0.0%	202	15	0	0	0.0%	0.0%
12 hr	18700	2835	2037	326	10.9%	11.5%	10164	1552	405	211	4.0%	13.6%	6144	925	396	203	6.5%	21.9%
24 hr	24069	3857	2130	392	8.8%	10.2%	13862	2333	498	277	3.6%	11.9%	8974	1328	489	268	5.5%	20.2%

**Link 2 - Barge Way North of Swale Roundabout**

**2031 Baseline + K3 Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	133	40	0	0	0.0%	0.0%	138	36	0	0	0.0%	0.0%	105	31	0	0	0.0%	0.0%
01.00	136	37	0	0	0.0%	0.0%	112	31	0	0	0.0%	0.0%	92	30	0	0	0.0%	0.0%
02.00	174	38	0	0	0.0%	0.0%	135	40	0	0	0.0%	0.0%	93	27	0	0	0.0%	0.0%
03.00	228	56	0	0	0.0%	0.0%	171	48	0	0	0.0%	0.0%	86	30	0	0	0.0%	0.0%
04.00	313	68	0	0	0.0%	0.0%	216	62	0	0	0.0%	0.0%	109	33	0	0	0.0%	0.0%
05.00	550	104	0	0	0.0%	0.0%	351	90	0	0	0.0%	0.0%	199	60	0	0	0.0%	0.0%
06.00	539	143	0	0	0.0%	0.0%	318	128	0	0	0.0%	0.0%	177	82	0	0	0.0%	0.0%
07.00	544	172	5	5	0.9%	3.0%	330	138	5	5	1.5%	3.7%	178	95	4	4	2.1%	3.9%
08.00	551	170	5	5	0.9%	3.0%	314	141	5	5	1.6%	3.6%	190	84	4	4	1.9%	4.4%
09.00	459	188	4	4	0.9%	2.2%	301	147	4	4	1.4%	2.8%	172	95	3	3	1.5%	2.8%
10.00	470	194	4	4	0.9%	2.1%	312	136	4	4	1.3%	3.0%	176	99	3	3	1.5%	2.7%
11.00	427	193	4	4	1.0%	2.1%	283	142	4	4	1.5%	2.9%	201	112	3	3	1.3%	2.4%
12.00	441	177	4	4	0.9%	2.3%	262	104	4	4	1.6%	4.0%	236	83	3	3	1.1%	3.2%
13.00	540	202	5	5	0.9%	2.4%	326	113	3	3	1.0%	2.9%	236	103	3	3	1.4%	3.2%
14.00	535	211	5	5	0.9%	2.3%	296	125	3	3	1.1%	2.7%	208	101	3	3	1.6%	3.3%
15.00	532	209	5	5	1.0%	2.4%	311	134	4	4	1.2%	2.7%	200	104	4	4	1.8%	3.5%
16.00	549	174	5	5	0.9%	2.9%	263	94	4	4	1.4%	3.9%	238	100	4	4	1.5%	3.7%
17.00	534	138	5	5	0.9%	3.5%	230	87	3	3	1.4%	3.8%	211	78	3	3	1.6%	4.3%
18.00	381	107	5	5	1.3%	4.5%	192	58	3	3	1.7%	5.8%	148	52	3	3	2.2%	6.4%
19.00	253	90	3	3	1.0%	2.9%	139	74	3	3	1.9%	3.6%	135	59	3	3	2.0%	4.5%
20.00	188	69	3	3	1.4%	3.8%	111	62	3	3	2.4%	4.3%	104	55	3	3	2.5%	4.9%
21.00	154	52	4	4	2.4%	7.1%	98	45	4	4	3.7%	8.1%	83	39	4	4	4.4%	9.3%
22.00	118	37	4	4	3.1%	9.9%	76	28	4	4	4.8%	13.0%	82	20	4	4	4.5%	18.3%
23.00	148	46	0	0	0.0%	0.0%	82	29	0	0	0.0%	0.0%	79	25	0	0	0.0%	0.0%
12 hr	5964	2134	56	56	0.9%	2.6%	3420	1417	47	47	1.4%	3.3%	2394	1103	39	39	1.6%	3.5%
24 hr	8898	2914	69	69	0.8%	2.4%	5367	2091	60	60	1.1%	2.9%	3737	1595	51	51	1.4%	3.2%



**Link 3 - Barge Way East of Fleet End Roundabout**

**2031 Baseline + K3 Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	45	23	0	0	0.0%	0.0%	95	19	0	0	0.0%	0.0%	19	15	0	0	0.0%	0.0%
01.00	43	22	0	0	0.0%	0.0%	39	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
02.00	62	24	0	0	0.0%	0.0%	40	30	0	0	0.0%	0.0%	18	15	0	0	0.0%	0.0%
03.00	75	26	0	0	0.0%	0.0%	24	17	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
04.00	116	32	0	0	0.0%	0.0%	43	25	0	0	0.0%	0.0%	25	15	0	0	0.0%	0.0%
05.00	231	41	0	0	0.0%	0.0%	102	22	0	0	0.0%	0.0%	60	16	0	0	0.0%	0.0%
06.00	284	59	0	0	0.0%	0.0%	119	44	0	0	0.0%	0.0%	64	18	0	0	0.0%	0.0%
07.00	330	90	5	5	1.5%	5.7%	154	60	5	5	3.3%	8.5%	86	31	4	4	4.2%	11.9%
08.00	329	98	5	5	1.6%	5.2%	162	64	5	5	3.2%	7.9%	109	28	4	4	3.3%	13.2%
09.00	249	101	4	4	1.7%	4.1%	143	64	4	4	2.9%	6.4%	76	28	3	3	3.5%	9.6%
10.00	238	103	4	4	1.7%	4.0%	131	59	4	4	3.1%	6.9%	76	28	3	3	3.5%	9.6%
11.00	213	100	4	4	1.9%	4.1%	117	45	4	4	3.5%	9.1%	70	30	3	3	3.8%	9.0%
12.00	247	101	4	4	1.7%	4.1%	109	40	4	4	3.8%	10.3%	77	29	3	3	3.4%	9.3%
13.00	286	103	5	5	1.7%	4.7%	133	32	3	3	2.5%	10.5%	113	28	3	3	2.9%	12.1%
14.00	263	113	5	5	1.8%	4.2%	110	31	3	3	3.0%	10.9%	93	28	3	3	3.6%	12.1%
15.00	236	110	5	5	2.2%	4.7%	97	35	4	4	3.8%	10.5%	79	29	4	4	4.6%	12.8%
16.00	268	89	5	5	1.9%	5.8%	104	32	4	4	3.5%	11.6%	98	31	4	4	3.7%	11.9%
17.00	308	68	5	5	1.6%	7.0%	115	29	3	3	2.9%	11.6%	124	28	3	3	2.7%	12.1%
18.00	159	42	5	5	3.0%	11.3%	67	17	3	3	5.0%	19.6%	64	16	3	3	5.2%	20.8%
19.00	93	33	3	3	2.8%	8.0%	52	15	3	3	5.1%	17.7%	55	15	3	3	4.9%	17.7%
20.00	82	32	3	3	3.2%	8.4%	34	17	3	3	7.7%	15.6%	33	15	3	3	8.0%	17.7%
21.00	77	24	4	4	4.8%	15.1%	36	15	4	4	10.0%	24.4%	35	17	4	4	10.3%	21.5%
22.00	50	26	4	4	7.3%	14.1%	21	15	4	4	17.2%	24.4%	28	16	4	4	12.9%	22.9%
23.00	45	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%	22	16	0	0	0.0%	0.0%
12 hr	3126	1119	56	56	1.8%	5.0%	1443	508	47	47	3.3%	9.3%	1066	330	39	39	3.6%	11.7%
24 hr	4329	1484	69	69	1.6%	4.6%	2064	765	60	60	2.9%	7.8%	1458	517	51	51	3.5%	9.9%

**Link 4 - A249 South of Swale Way Junction**

**2031 Baseline + K3 Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	240	67	0	0	0.0%	0.0%	398	68	0	0	0.0%	0.0%	458	45	0	0	0.0%	0.0%
01.00	174	58	0	0	0.0%	0.0%	267	63	0	0	0.0%	0.0%	296	38	0	0	0.0%	0.0%
02.00	172	65	0	0	0.0%	0.0%	227	73	0	0	0.0%	0.0%	209	42	0	0	0.0%	0.0%
03.00	242	83	0	0	0.0%	0.0%	228	73	0	0	0.0%	0.0%	176	44	0	0	0.0%	0.0%
04.00	553	144	0	0	0.0%	0.0%	310	81	0	0	0.0%	0.0%	201	45	0	0	0.0%	0.0%
05.00	1343	244	12	9	0.9%	3.8%	700	145	12	9	1.7%	6.4%	414	80	12	9	3.0%	11.6%
06.00	2221	308	24	17	1.1%	5.5%	1050	186	24	17	2.3%	9.2%	634	114	24	17	3.8%	14.9%
07.00	3153	363	468	24	14.8%	6.5%	1443	217	59	19	4.1%	8.6%	822	124	112	17	13.6%	14.1%
08.00	2910	368	716	34	24.6%	9.4%	1839	229	145	18	7.9%	7.7%	1136	124	177	16	15.5%	13.1%
09.00	2217	381	480	32	21.7%	8.4%	2072	247	311	20	15.0%	8.0%	1645	165	232	18	14.1%	11.1%
10.00	2126	403	427	38	20.1%	9.5%	2367	236	339	21	14.3%	9.1%	2107	181	515	20	24.5%	11.1%
11.00	2160	393	424	31	19.6%	7.9%	2511	231	396	21	15.8%	9.0%	2330	180	571	19	24.5%	10.7%
12.00	2321	387	480	25	20.7%	6.6%	2703	207	481	14	17.8%	6.9%	2190	152	548	13	25.0%	8.5%
13.00	2358	404	509	32	21.6%	7.9%	2640	206	468	20	17.7%	9.5%	2154	161	523	20	24.3%	12.1%
14.00	2600	405	529	28	20.3%	6.9%	2422	192	501	17	20.7%	8.7%	2173	162	343	17	15.8%	10.3%
15.00	2884	400	583	26	20.2%	6.6%	2372	195	470	20	19.8%	10.2%	2142	174	414	20	19.3%	11.5%
16.00	3409	336	582	20	17.1%	6.1%	2313	169	366	16	15.8%	9.4%	2252	167	312	16	13.9%	9.5%
17.00	3694	296	674	19	18.3%	6.3%	2360	159	459	15	19.4%	9.1%	1973	154	281	15	14.2%	9.5%
18.00	2774	255	540	15	19.5%	5.8%	2038	134	400	12	19.6%	8.7%	1863	129	283	12	15.2%	9.1%
19.00	1851	189	23	14	1.3%	7.6%	1601	123	23	14	1.4%	11.7%	1548	115	23	14	1.5%	12.4%
20.00	1277	142	18	12	1.4%	8.4%	1164	91	16	12	1.3%	13.1%	1279	100	16	12	1.2%	12.0%
21.00	956	109	15	10	1.5%	8.9%	973	71	13	10	1.3%	13.6%	935	83	13	10	1.4%	11.6%
22.00	735	74	4	4	0.5%	5.0%	861	49	4	4	0.4%	7.5%	554	45	4	4	0.7%	8.2%
23.00	440	63	0	0	0.0%	0.0%	664	50	0	0	0.0%	0.0%	336	47	0	0	0.0%	0.0%
12 hr	32605	4392	6412	325	19.7%	7.4%	27081	2422	4395	211	16.2%	8.7%	22787	1873	4312	203	18.9%	10.8%
24 hr	42808	5937	6508	391	15.2%	6.6%	35525	3494	4487	277	12.6%	7.9%	29826	2671	4403	268	14.8%	10.1%

Link 5 - A249 between the A2 and M2

2031 Baseline + K3 Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	338	91	0	0	0.0%	0.0%	564	93	0	0	0.0%	0.0%	649	60	0	0	0.0%	0.0%
01.00	243	79	0	0	0.0%	0.0%	377	85	0	0	0.0%	0.0%	419	50	0	0	0.0%	0.0%
02.00	241	87	0	0	0.0%	0.0%	320	99	0	0	0.0%	0.0%	295	55	0	0	0.0%	0.0%
03.00	339	113	0	0	0.0%	0.0%	322	100	0	0	0.0%	0.0%	247	58	0	0	0.0%	0.0%
04.00	782	199	0	0	0.0%	0.0%	438	111	0	0	0.0%	0.0%	282	59	0	0	0.0%	0.0%
05.00	1878	328	12	9	0.6%	2.8%	976	190	12	9	1.2%	4.9%	567	97	12	9	2.1%	9.6%
06.00	3114	406	24	17	0.8%	4.2%	1459	237	24	17	1.6%	7.2%	863	134	24	17	2.8%	12.7%
07.00	4398	463	671	24	15.3%	5.1%	1997	268	75	19	3.8%	7.0%	1130	146	159	17	14.1%	11.9%
08.00	3983	469	1102	35	27.7%	7.4%	2559	286	211	18	8.3%	6.2%	1572	148	264	16	16.8%	11.0%
09.00	3071	485	669	32	21.8%	6.6%	2923	308	482	20	16.5%	6.4%	2319	202	356	18	15.4%	9.1%
10.00	2936	512	582	38	19.8%	7.5%	3343	290	526	22	15.7%	7.4%	3005	223	811	20	27.0%	9.0%
11.00	2990	501	582	31	19.5%	6.2%	3561	283	619	21	17.4%	7.3%	3336	222	904	19	27.1%	8.7%
12.00	3219	500	662	26	20.6%	5.1%	3852	258	757	14	19.6%	5.6%	3142	192	860	13	27.4%	6.7%
13.00	3262	517	707	32	21.7%	6.2%	3740	251	726	20	19.4%	7.8%	3064	196	811	20	26.5%	10.0%
14.00	3602	523	764	28	21.2%	5.4%	3444	235	783	17	22.7%	7.1%	3082	202	531	17	17.2%	8.3%
15.00	4030	511	874	26	21.7%	5.2%	3367	235	731	20	21.7%	8.5%	3045	215	640	20	21.0%	9.3%
16.00	4772	426	845	21	17.7%	4.8%	3278	204	562	16	17.1%	7.8%	3195	211	481	16	15.1%	7.5%
17.00	5149	371	977	19	19.0%	5.1%	3351	191	717	15	21.4%	7.6%	2791	193	431	15	15.4%	7.6%
18.00	3911	323	830	15	21.2%	4.6%	2909	164	628	12	21.6%	7.1%	2658	166	441	12	16.6%	7.0%
19.00	2596	244	24	14	0.9%	5.8%	2253	153	23	14	1.0%	9.3%	2177	143	23	14	1.0%	10.0%
20.00	1790	180	24	12	1.3%	6.6%	1639	112	15	12	0.9%	10.7%	1803	123	15	12	0.9%	9.7%
21.00	1337	138	20	10	1.5%	7.0%	1370	87	13	10	0.9%	11.0%	1315	105	13	10	1.0%	9.2%
22.00	1030	100	4	4	0.4%	3.7%	1225	65	4	4	0.3%	5.6%	786	60	4	4	0.5%	6.1%
23.00	621	86	0	0	0.0%	0.0%	945	66	0	0	0.0%	0.0%	475	62	0	0	0.0%	0.0%
12 hr	45324	5600	9265	326	20.4%	5.8%	38324	2974	6816	211	17.8%	7.1%	32339	2316	6689	203	20.7%	8.7%
24 hr	59632	7651	9373	392	15.7%	5.1%	50213	4373	6907	277	13.8%	6.3%	42217	3321	6780	268	16.1%	8.1%

Link 6 - M2 West

2031 Baseline + K3 Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	428	111	0	0	0.0%	0.0%	711	123	0	0	0.0%	0.0%	869	69	0	0	0.0%	0.0%
01.00	326	103	0	0	0.0%	0.0%	472	106	0	0	0.0%	0.0%	533	66	0	0	0.0%	0.0%
02.00	341	117	0	0	0.0%	0.0%	398	99	0	0	0.0%	0.0%	355	51	0	0	0.0%	0.0%
03.00	467	160	0	0	0.0%	0.0%	419	120	0	0	0.0%	0.0%	315	71	0	0	0.0%	0.0%
04.00	1075	267	0	0	0.0%	0.0%	566	151	0	0	0.0%	0.0%	338	62	0	0	0.0%	0.0%
05.00	2830	449	7	6	0.2%	1.3%	1199	213	7	6	0.5%	2.7%	687	98	7	6	1.0%	5.8%
06.00	4268	527	13	11	0.3%	2.0%	1804	269	13	11	0.7%	3.9%	1031	126	13	11	1.2%	8.3%
07.00	5707	549	201	14	3.5%	2.5%	2526	312	27	11	1.1%	3.5%	1411	140	52	11	3.7%	7.6%
08.00	5278	602	325	21	6.1%	3.4%	3240	318	66	10	2.0%	3.2%	1885	144	82	10	4.3%	6.9%
09.00	4374	627	204	19	4.7%	3.1%	3631	316	145	12	4.0%	3.7%	2784	192	109	11	3.9%	5.9%
10.00	4035	614	181	23	4.5%	3.7%	4151	308	158	13	3.8%	4.1%	3764	221	241	12	6.4%	5.6%
11.00	4028	598	179	19	4.4%	3.1%	4601	289	185	12	4.0%	4.2%	4302	249	267	12	6.2%	4.8%
12.00	4378	638	200	15	4.6%	2.4%	4825	266	223	8	4.6%	3.1%	4635	223	253	8	5.5%	3.6%
13.00	4543	660	215	19	4.7%	2.9%	4745	263	216	12	4.6%	4.6%	4402	234	241	12	5.5%	5.2%
14.00	4834	659	229	17	4.7%	2.5%	4370	257	232	10	5.3%	4.0%	4011	232	159	10	4.0%	4.4%
15.00	5340	641	259	16	4.8%	2.4%	4196	240	218	12	5.2%	5.1%	3831	222	192	12	5.0%	5.5%
16.00	6281	519	250	12	4.0%	2.3%	4375	224	168	10	3.8%	4.4%	4240	211	144	10	3.4%	4.6%
17.00	6679	425	290	11	4.3%	2.6%	4156	192	212	9	5.1%	4.7%	3860	198	129	9	3.4%	4.5%
18.00	4988	351	244	9	4.9%	2.4%	3665	172	185	7	5.1%	4.2%	3400	157	131	7	3.9%	4.6%
19.00	3247	272	11	9	0.4%	3.2%	2806	140	11	9	0.4%	6.3%	2808	141	11	9	0.4%	6.2%
20.00	2271	187	8	7	0.4%	3.9%	2029	102	8	7	0.4%	7.3%	2121	103	8	7	0.4%	7.2%
21.00	1668	132	7	6	0.4%	4.5%	1577	83	7	6	0.4%	7.2%	1505	88	7	6	0.5%	6.8%
22.00	1339	112	2	2	0.2%	2.0%	1568	63	2	2	0.1%	3.6%	970	62	2	2	0.2%	3.7%
23.00	800	108	0	0	0.0%	0.0%	1213	69	0	0	0.0%	0.0%	556	79	0	0	0.0%	0.0%
12 hr	60465	6882	2777	193	4.6%	2.8%	48483	3159	2036	126	4.2%	4.0%	42524	2424	2000	125	4.7%	5.2%
24 hr	79526	9426	2825	234	3.6%	2.5%	63245	4696	2084	167	3.3%	3.6%	54612	3438	2048	166	3.8%	4.8%

Link 7 - M2 East

2031 Baseline + K3 Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.0%	0.0%	650	110	0	0	0.0%	0.0%	795	61	0	0	0.0%	0.0%
01.00	297	92	0	0	0.0%	0.0%	430	94	0	0	0.0%	0.0%	487	58	0	0	0.0%	0.0%
02.00	311	105	0	0	0.0%	0.0%	363	88	0	0	0.0%	0.0%	323	44	0	0	0.0%	0.0%
03.00	426	144	0	0	0.0%	0.0%	382	108	0	0	0.0%	0.0%	287	63	0	0	0.0%	0.0%
04.00	984	242	0	0	0.0%	0.0%	517	136	0	0	0.0%	0.0%	308	54	0	0	0.0%	0.0%
05.00	2575	395	1	1	0.0%	0.2%	1082	178	1	1	0.1%	0.4%	611	72	1	1	0.2%	0.9%
06.00	3882	453	2	1	0.1%	0.3%	1623	217	2	1	0.1%	0.5%	913	86	2	1	0.2%	1.3%
07.00	5181	471	47	2	0.9%	0.4%	2281	255	5	1	0.2%	0.5%	1256	98	10	1	0.8%	1.2%
08.00	4760	521	71	2	1.5%	0.5%	2932	262	13	1	0.4%	0.5%	1687	103	15	1	0.9%	1.1%
09.00	3956	539	48	2	1.2%	0.4%	3286	256	26	1	0.8%	0.6%	2510	142	19	1	0.8%	0.9%
10.00	3642	525	42	3	1.2%	0.5%	3759	246	28	2	0.7%	0.6%	3398	165	42	1	1.2%	0.8%
11.00	3638	512	43	2	1.2%	0.4%	4173	229	32	1	0.8%	0.6%	3893	192	47	1	1.2%	0.7%
12.00	3964	558	48	2	1.2%	0.3%	4385	219	39	1	0.9%	0.5%	4208	179	45	1	1.1%	0.5%
13.00	4105	569	51	2	1.2%	0.4%	4299	207	39	1	0.9%	0.6%	3983	180	43	1	1.1%	0.7%
14.00	4376	573	52	2	1.2%	0.3%	3960	206	41	1	1.0%	0.5%	3635	182	28	1	0.8%	0.6%
15.00	4836	552	57	2	1.2%	0.3%	3797	185	38	1	1.0%	0.7%	3464	169	34	1	1.0%	0.8%
16.00	5703	446	56	1	1.0%	0.3%	3971	177	30	1	0.8%	0.6%	3849	165	26	1	0.7%	0.6%
17.00	6058	361	61	1	1.0%	0.4%	3768	150	38	1	1.0%	0.7%	3501	155	23	1	0.7%	0.6%
18.00	4542	305	47	1	1.0%	0.4%	3333	142	33	1	1.0%	0.5%	3093	128	23	1	0.8%	0.6%
19.00	2953	228	2	1	0.1%	0.4%	2552	107	2	1	0.1%	0.9%	2553	108	2	1	0.1%	0.9%
20.00	2064	154	1	1	0.1%	0.5%	1844	76	1	1	0.1%	1.1%	1928	76	1	1	0.1%	1.0%
21.00	1516	108	1	1	0.1%	0.6%	1433	63	1	1	0.1%	1.0%	1367	68	1	1	0.1%	1.0%
22.00	1223	100	0	0	0.0%	0.2%	1436	55	0	0	0.0%	0.4%	887	54	0	0	0.0%	0.5%
23.00	731	96	0	0	0.0%	0.0%	1111	60	0	0	0.0%	0.0%	508	70	0	0	0.0%	0.0%
12 hr	54761	5931	622	23	1.1%	0.4%	43944	2534	362	15	0.8%	0.6%	38476	1859	355	14	0.9%	0.7%
24 hr	72110	8146	630	27	0.9%	0.3%	57367	3827	371	19	0.6%	0.5%	49443	2672	363	18	0.7%	0.7%

**Link 8 - Swale Way north of Reams Way Junction**

**2031 Baseline + K3 Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	644	51	0	0	0.0%	0.0%	240	19	0	0	0.0%	0.0%	129	12	0	0	0.0%	0.0%
07.00	1414	85	2	0	0.2%	0.0%	349	22	0	0	0.1%	0.0%	154	12	0	0	0.3%	0.0%
08.00	1499	83	3	0	0.2%	0.0%	450	30	1	0	0.1%	0.0%	153	14	1	0	0.5%	0.0%
09.00	950	99	2	0	0.2%	0.0%	571	31	1	0	0.3%	0.0%	322	13	1	0	0.3%	0.0%
10.00	839	106	2	0	0.2%	0.0%	704	34	2	0	0.2%	0.0%	437	18	3	0	0.6%	0.0%
11.00	830	100	2	0	0.2%	0.0%	770	23	2	0	0.2%	0.0%	529	24	3	0	0.5%	0.0%
12.00	932	102	2	0	0.3%	0.0%	732	25	2	0	0.3%	0.0%	556	19	3	0	0.5%	0.0%
13.00	900	93	2	0	0.3%	0.0%	692	33	2	0	0.3%	0.0%	655	17	3	0	0.4%	0.0%
14.00	1077	97	3	0	0.2%	0.0%	614	23	2	0	0.4%	0.0%	467	13	2	0	0.4%	0.0%
15.00	1188	86	3	0	0.2%	0.0%	595	29	2	0	0.4%	0.0%	490	16	2	0	0.4%	0.0%
16.00	1421	76	3	0	0.2%	0.0%	553	20	2	0	0.3%	0.0%	539	17	2	0	0.3%	0.0%
17.00	1299	61	3	0	0.2%	0.0%	611	19	2	0	0.4%	0.0%	531	9	1	0	0.3%	0.0%
18.00	827	63	3	0	0.3%	0.0%	490	15	2	0	0.4%	0.0%	410	9	1	0	0.3%	0.0%
19.00	483	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	259	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.0%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13175	1052	31	0	0.2%	0.0%	7131	304	21	0	0.3%	0.0%	5243	184	21	0	0.4%	0.0%
24 hr	16116	1362	31	0	0.2%	0.0%	8933	431	22	0	0.2%	0.0%	6617	280	21	0	0.3%	0.0%

**Link 9 - Swale Way south of Reams Way Junction**

**2031 Baseline + K3 Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	656	57	0	0	0.0%	0.0%	273	20	0	0	0.0%	0.0%	133	13	0	0	0.0%	0.0%
07.00	1416	85	2	0	0.2%	0.0%	347	27	0	0	0.1%	0.0%	188	12	0	0	0.3%	0.0%
08.00	1432	94	3	0	0.2%	0.0%	484	26	1	0	0.1%	0.0%	155	7	1	0	0.5%	0.0%
09.00	917	105	2	0	0.3%	0.0%	575	35	1	0	0.3%	0.0%	324	15	1	0	0.3%	0.0%
10.00	828	107	2	0	0.2%	0.0%	716	25	2	0	0.2%	0.0%	474	15	3	0	0.5%	0.0%
11.00	850	108	2	0	0.2%	0.0%	775	35	2	0	0.2%	0.0%	506	17	3	0	0.6%	0.0%
12.00	917	98	2	0	0.3%	0.0%	749	34	2	0	0.3%	0.0%	522	15	3	0	0.5%	0.0%
13.00	950	92	2	0	0.3%	0.0%	622	32	2	0	0.4%	0.0%	497	21	3	0	0.5%	0.0%
14.00	1079	102	3	0	0.2%	0.0%	546	24	2	0	0.5%	0.0%	450	20	2	0	0.4%	0.0%
15.00	1159	93	3	0	0.2%	0.0%	523	21	2	0	0.4%	0.0%	415	18	2	0	0.5%	0.0%
16.00	1433	82	3	0	0.2%	0.0%	547	19	2	0	0.3%	0.0%	440	14	2	0	0.3%	0.0%
17.00	1370	64	3	0	0.2%	0.0%	596	21	2	0	0.4%	0.0%	487	21	1	0	0.3%	0.0%
18.00	858	63	3	0	0.3%	0.0%	496	17	2	0	0.4%	0.0%	402	16	1	0	0.3%	0.0%
19.00	477	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.0%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13210	1093	31	0	0.2%	0.0%	6976	316	21	0	0.3%	0.0%	4860	194	21	0	0.4%	0.0%
24 hr	16134	1403	31	0	0.2%	0.0%	8849	425	22	0	0.2%	0.0%	6172	278	21	0	0.3%	0.0%

**Link 10 - Swale Way south of Ridham Avenue Roundabout**

**2031 Baseline + K3 Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	565	37	0	0	0.0%	0.0%	197	12	0	0	0.0%	0.0%	99	5	0	0	0.0%	0.0%
07.00	1313	67	2	0	0.2%	0.0%	319	16	0	0	0.1%	0.0%	138	5	0	0	0.4%	0.0%
08.00	1401	71	3	0	0.2%	0.0%	421	17	1	0	0.2%	0.0%	139	4	1	0	0.6%	0.0%
09.00	869	83	2	0	0.3%	0.0%	542	18	1	0	0.3%	0.0%	312	4	1	0	0.4%	0.0%
10.00	741	88	2	0	0.3%	0.0%	681	16	2	0	0.2%	0.0%	404	8	3	0	0.6%	0.0%
11.00	740	75	2	0	0.3%	0.0%	764	11	2	0	0.3%	0.0%	518	9	3	0	0.5%	0.0%
12.00	823	81	2	0	0.3%	0.0%	717	15	2	0	0.3%	0.0%	540	11	3	0	0.5%	0.0%
13.00	833	74	2	0	0.3%	0.0%	658	16	2	0	0.3%	0.0%	639	9	3	0	0.4%	0.0%
14.00	971	77	3	0	0.3%	0.0%	607	13	2	0	0.4%	0.0%	466	5	2	0	0.4%	0.0%
15.00	1101	78	3	0	0.3%	0.0%	556	13	2	0	0.4%	0.0%	467	8	2	0	0.4%	0.0%
16.00	1353	65	3	0	0.2%	0.0%	532	13	2	0	0.3%	0.0%	521	11	2	0	0.3%	0.0%
17.00	1242	56	3	0	0.3%	0.0%	545	12	2	0	0.4%	0.0%	490	7	1	0	0.3%	0.0%
18.00	767	50	3	0	0.3%	0.0%	464	8	2	0	0.4%	0.0%	389	3	1	0	0.4%	0.0%
19.00	431	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.0%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12154	863	31	0	0.3%	0.0%	6806	170	21	0	0.3%	0.0%	5023	84	21	0	0.4%	0.0%
24 hr	14591	1055	31	0	0.2%	0.0%	8379	245	22	0	0.3%	0.0%	6218	120	21	0	0.3%	0.0%



**Link 11 - A249 North of Swale Way Junction**

**2031 Baseline + K3 Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	0	0	0.0%	0.0%	770	77	0	0	0.0%	0.0%	436	30	0	0	0.0%	0.0%
07.00	3012	191	90	0	3.0%	0.0%	1139	82	7	0	0.6%	0.0%	581	26	22	0	3.8%	0.0%
08.00	2710	235	161	0	6.0%	0.0%	1543	83	28	0	1.8%	0.0%	872	31	36	0	4.1%	0.0%
09.00	2053	238	87	0	4.2%	0.0%	1887	76	72	0	3.8%	0.1%	1368	48	52	0	3.8%	0.0%
10.00	1965	234	72	0	3.7%	0.0%	2223	85	79	0	3.6%	0.0%	2020	41	125	0	6.2%	0.0%
11.00	2067	230	73	0	3.6%	0.0%	2492	71	95	0	3.8%	0.1%	2331	38	140	0	6.0%	0.0%
12.00	2199	227	85	0	3.9%	0.0%	2640	63	119	0	4.5%	0.1%	2543	44	138	0	5.4%	0.0%
13.00	2235	222	91	0	4.1%	0.0%	2540	61	113	0	4.5%	0.0%	2417	47	128	0	5.3%	0.0%
14.00	2350	239	105	0	4.5%	0.0%	2406	57	123	0	5.1%	0.0%	2134	42	82	0	3.8%	0.0%
15.00	2574	205	126	0	4.9%	0.0%	2333	45	116	0	5.0%	0.0%	2049	45	102	0	5.0%	0.0%
16.00	3164	170	118	0	3.7%	0.0%	2290	49	90	0	3.9%	0.0%	2114	41	74	0	3.5%	0.0%
17.00	3303	126	142	0	4.3%	0.0%	2189	36	113	0	5.2%	0.0%	1964	39	67	0	3.4%	0.0%
18.00	2284	83	128	0	5.6%	0.0%	1847	36	100	0	5.4%	0.0%	1763	43	69	0	3.9%	0.0%
19.00	1532	66	1	0	0.0%	0.0%	1445	29	0	0	0.0%	0.0%	1364	30	0	0	0.0%	0.0%
20.00	1117	41	2	0	0.2%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	2	0	0.2%	0.0%	822	25	0	0	0.0%	0.0%	704	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.0%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.0%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29916	2398	1280	0	4.3%	0.0%	25528	742	1055	0	4.1%	0.0%	22156	485	1033	0	4.7%	0.0%
24 hr	37860	3121	1284	0	3.4%	0.0%	32342	1117	1055	0	3.3%	0.0%	27697	709	1034	0	3.7%	0.0%

**APPENDIX AI: 2031 BASELINE, WKN OPERATIONAL AND 2031 CUMULATIVE DEVELOPMENT PERCENTAGE IMPACT TABLE**

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**Link 1 - Swale Way East of B2005 Groveshurst Roundabout**

**2031 Baseline + WKN Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	165	56	0	0	0.0%	0.0%	184	50	0	0	0.0%	0.0%	189	20	0	0	0.0%	0.0%
01.00	153	51	0	0	0.0%	0.0%	163	60	0	0	0.0%	0.0%	162	19	0	0	0.0%	0.0%
02.00	169	47	0	0	0.0%	0.0%	133	50	0	0	0.0%	0.0%	102	18	0	0	0.0%	0.0%
03.00	247	71	0	0	0.0%	0.0%	170	51	0	0	0.0%	0.0%	87	20	0	0	0.0%	0.0%
04.00	371	85	0	0	0.0%	0.0%	209	66	0	0	0.0%	0.0%	105	21	0	0	0.0%	0.0%
05.00	950	140	12	9	1.3%	6.6%	535	98	12	9	2.3%	9.5%	294	52	12	9	4.2%	18.0%
06.00	1125	194	35	17	3.1%	8.8%	527	139	35	17	6.7%	12.3%	256	80	35	17	13.8%	21.4%
07.00	1914	241	202	37	10.6%	15.4%	706	153	71	32	10.1%	21.1%	293	79	66	27	22.7%	34.5%
08.00	2229	231	225	48	10.1%	20.8%	741	134	53	31	7.1%	23.2%	315	75	47	26	15.1%	34.6%
09.00	1350	254	197	46	14.6%	18.0%	803	157	48	33	6.0%	21.1%	325	83	42	28	13.0%	33.9%
10.00	1232	275	192	52	15.6%	18.8%	911	158	50	35	5.5%	22.2%	344	91	46	30	13.3%	32.6%
11.00	1258	262	188	45	15.0%	17.1%	940	153	46	34	4.9%	22.3%	564	89	41	29	7.3%	32.6%
12.00	1377	247	200	39	14.6%	15.8%	962	130	42	28	4.4%	21.4%	864	73	37	23	4.3%	31.2%
13.00	1494	270	205	41	13.7%	15.1%	924	126	47	24	5.1%	19.4%	532	87	47	24	8.9%	28.2%
14.00	1475	262	187	37	12.6%	14.1%	904	123	40	22	4.4%	17.6%	545	81	39	22	7.1%	26.4%
15.00	1596	258	182	40	11.4%	15.4%	916	129	45	30	4.9%	23.0%	546	84	44	30	8.1%	35.4%
16.00	1725	215	199	34	11.5%	15.8%	823	114	54	26	6.5%	22.5%	665	71	53	26	8.0%	36.2%
17.00	1837	179	169	27	9.2%	15.3%	839	99	48	19	5.8%	19.7%	695	68	47	19	6.8%	28.7%
18.00	1214	141	83	24	6.8%	16.7%	695	77	31	17	4.5%	21.5%	456	46	31	17	6.7%	36.1%
19.00	734	102	44	24	6.0%	23.6%	555	73	44	24	8.0%	32.8%	521	56	44	24	8.5%	42.7%
20.00	549	98	26	22	4.6%	22.0%	406	74	26	22	6.3%	29.4%	369	49	26	22	6.9%	44.4%
21.00	394	73	23	19	5.8%	26.5%	322	54	23	19	7.1%	35.8%	231	38	23	19	9.9%	50.5%
22.00	309	54	13	13	4.3%	24.7%	285	30	13	13	4.7%	44.4%	314	15	13	13	4.3%	89.3%
23.00	203	51	0	0	0.0%	0.0%	209	34	0	0	0.0%	0.0%	202	15	0	0	0.0%	0.0%
12 hr	18700	2835	2228	469	11.9%	16.5%	10164	1552	574	331	5.6%	21.3%	6144	925	542	300	8.8%	32.4%
24 hr	24069	3857	2382	573	9.9%	14.9%	13862	2333	728	436	5.2%	18.7%	8974	1328	696	404	7.8%	30.5%

Link 2 - Barge Way North of Swale Roundabout																		
2031 Baseline + WKN Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact																		
Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	133	40	0	0	0.0%	0.0%	138	36	0	0	0.0%	0.0%	105	31	0	0	0.0%	0.0%
01.00	136	37	0	0	0.0%	0.0%	112	31	0	0	0.0%	0.0%	92	30	0	0	0.0%	0.0%
02.00	174	38	0	0	0.0%	0.0%	135	40	0	0	0.0%	0.0%	93	27	0	0	0.0%	0.0%
03.00	228	56	0	0	0.0%	0.0%	171	48	0	0	0.0%	0.0%	86	30	0	0	0.0%	0.0%
04.00	313	68	0	0	0.0%	0.0%	216	62	0	0	0.0%	0.0%	109	33	0	0	0.0%	0.0%
05.00	550	104	0	0	0.0%	0.0%	351	90	0	0	0.0%	0.0%	199	60	0	0	0.0%	0.0%
06.00	539	143	11	0	2.0%	0.0%	318	128	11	0	3.5%	0.0%	177	82	11	0	6.2%	0.0%
07.00	544	172	43	19	8.0%	10.9%	330	138	43	19	13.1%	13.6%	178	95	38	13	21.4%	14.1%
08.00	551	170	19	19	3.4%	11.0%	314	141	19	19	6.0%	13.3%	190	84	13	13	7.0%	15.9%
09.00	459	188	18	18	3.9%	9.4%	301	147	18	18	5.9%	12.1%	172	95	12	12	7.2%	13.0%
10.00	470	194	18	18	3.8%	9.1%	312	136	18	18	5.7%	13.0%	176	99	12	12	7.0%	12.5%
11.00	427	193	18	18	4.2%	9.2%	283	142	18	18	6.3%	12.5%	201	112	12	12	6.2%	11.0%
12.00	441	177	18	18	4.0%	10.0%	262	104	18	18	6.8%	17.0%	236	83	12	12	5.2%	15.0%
13.00	540	202	14	14	2.5%	6.7%	326	113	8	8	2.5%	7.3%	236	103	8	8	3.5%	8.0%
14.00	535	211	14	14	2.5%	6.4%	296	125	8	8	2.8%	6.6%	208	101	8	8	3.9%	8.1%
15.00	532	209	19	19	3.5%	9.0%	311	134	13	13	4.3%	10.0%	200	104	13	13	6.7%	12.9%
16.00	549	174	30	19	5.4%	10.8%	263	94	24	13	9.3%	14.3%	238	100	24	13	10.2%	13.4%
17.00	534	138	25	14	4.6%	9.8%	230	87	19	8	8.3%	9.4%	211	78	19	8	9.1%	10.6%
18.00	381	107	16	14	4.2%	12.7%	192	58	11	8	5.6%	14.2%	148	52	11	8	7.2%	15.9%
19.00	253	90	23	12	9.2%	13.7%	139	74	23	12	16.8%	16.7%	135	59	23	12	17.3%	20.9%
20.00	188	69	12	12	6.6%	17.9%	111	62	12	12	11.2%	20.0%	104	55	12	12	11.8%	22.6%
21.00	154	52	13	13	8.7%	25.9%	98	45	13	13	13.6%	29.6%	83	39	13	13	16.1%	34.1%
22.00	118	37	13	13	11.4%	36.1%	76	28	13	13	17.6%	47.5%	82	20	13	13	16.3%	66.8%
23.00	148	46	0	0	0.0%	0.0%	82	29	0	0	0.0%	0.0%	79	25	0	0	0.0%	0.0%
12 hr	5964	2134	249	200	4.2%	9.4%	3420	1417	217	168	6.3%	11.8%	2394	1103	185	136	7.7%	12.3%
24 hr	8898	2914	323	252	3.6%	8.6%	5367	2091	291	219	5.4%	10.5%	3737	1595	258	187	6.9%	11.7%

**Link 3 - Barge Way East of Fleet End Roundabout**

**2031 Baseline + WKN Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	45	23	0	0	0.0%	0.0%	95	19	0	0	0.0%	0.0%	19	15	0	0	0.0%	0.0%
01.00	43	22	0	0	0.0%	0.0%	39	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
02.00	62	24	0	0	0.0%	0.0%	40	30	0	0	0.0%	0.0%	18	15	0	0	0.0%	0.0%
03.00	75	26	0	0	0.0%	0.0%	24	17	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
04.00	116	32	0	0	0.0%	0.0%	43	25	0	0	0.0%	0.0%	25	15	0	0	0.0%	0.0%
05.00	231	41	0	0	0.0%	0.0%	102	22	0	0	0.0%	0.0%	60	16	0	0	0.0%	0.0%
06.00	284	59	11	0	3.9%	0.0%	119	44	11	0	9.3%	0.0%	64	18	11	0	17.3%	0.0%
07.00	330	90	43	19	13.1%	20.7%	154	60	43	19	28.1%	31.0%	86	31	38	13	44.0%	43.6%
08.00	329	98	19	19	5.7%	19.0%	162	64	19	19	11.6%	29.1%	109	28	13	13	12.2%	48.4%
09.00	249	101	18	18	7.1%	17.6%	143	64	18	18	12.4%	27.5%	76	28	12	12	16.4%	44.8%
10.00	238	103	18	18	7.5%	17.1%	131	59	18	18	13.5%	29.9%	76	28	12	12	16.2%	44.8%
11.00	213	100	18	18	8.3%	17.7%	117	45	18	18	15.2%	39.2%	70	30	12	12	17.8%	41.8%
12.00	247	101	18	18	7.2%	17.5%	109	40	18	18	16.3%	44.2%	77	29	12	12	16.1%	43.2%
13.00	286	103	14	14	4.7%	13.2%	133	32	8	8	6.2%	25.9%	113	28	8	8	7.2%	29.7%
14.00	263	113	14	14	5.1%	12.0%	110	31	8	8	7.4%	26.7%	93	28	8	8	8.8%	29.7%
15.00	236	110	19	19	7.9%	17.1%	97	35	13	13	13.7%	38.6%	79	29	13	13	16.9%	46.7%
16.00	268	89	30	19	11.1%	21.2%	104	32	24	13	23.4%	42.2%	98	31	24	13	24.8%	43.6%
17.00	308	68	25	14	8.0%	19.9%	115	29	19	8	16.7%	28.6%	124	28	19	8	15.4%	29.7%
18.00	159	42	16	14	10.1%	31.9%	67	17	11	8	16.0%	48.2%	64	16	11	8	16.8%	51.2%
19.00	93	33	23	12	25.1%	37.1%	52	15	23	12	45.3%	82.7%	55	15	23	12	42.8%	82.7%
20.00	82	32	12	12	15.0%	39.2%	34	17	12	12	36.0%	72.8%	33	15	12	12	37.1%	82.7%
21.00	77	24	13	13	17.4%	55.1%	36	15	13	13	36.7%	89.3%	35	17	13	13	37.8%	78.7%
22.00	50	26	13	13	26.8%	51.6%	21	15	13	13	63.0%	89.3%	28	16	13	13	47.2%	83.7%
23.00	45	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%	22	16	0	0	0.0%	0.0%
12 hr	3126	1119	249	200	8.0%	17.9%	1443	508	217	168	15.0%	33.0%	1066	330	185	136	17.3%	41.2%
24 hr	4329	1484	323	252	7.5%	17.0%	2064	765	291	219	14.1%	28.7%	1458	517	258	187	17.7%	36.2%

**Link 4 - A249 South of Swale Way Junction**

**2031 Baseline + WKN Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	240	67	0	0	0.0%	0.0%	398	68	0	0	0.0%	0.0%	458	45	0	0	0.0%	0.0%
01.00	174	58	0	0	0.0%	0.0%	267	63	0	0	0.0%	0.0%	296	38	0	0	0.0%	0.0%
02.00	172	65	0	0	0.0%	0.0%	227	73	0	0	0.0%	0.0%	209	42	0	0	0.0%	0.0%
03.00	242	83	0	0	0.0%	0.0%	228	73	0	0	0.0%	0.0%	176	44	0	0	0.0%	0.0%
04.00	553	144	0	0	0.0%	0.0%	310	81	0	0	0.0%	0.0%	201	45	0	0	0.0%	0.0%
05.00	1343	244	12	9	0.9%	3.8%	700	145	12	9	1.7%	6.4%	414	80	12	9	3.0%	11.6%
06.00	2221	308	35	17	1.6%	5.5%	1050	186	35	17	3.3%	9.2%	634	114	35	17	5.5%	14.9%
07.00	3153	363	504	37	16.0%	10.2%	1443	217	96	32	6.6%	14.8%	822	124	145	27	17.6%	21.9%
08.00	2910	368	729	48	25.1%	13.0%	1839	229	159	31	8.6%	13.6%	1136	124	186	26	16.4%	21.0%
09.00	2217	381	494	46	22.3%	11.9%	2072	247	324	33	15.6%	13.4%	1645	165	242	28	14.7%	17.1%
10.00	2126	403	440	52	20.7%	12.8%	2367	236	353	35	14.9%	14.8%	2107	181	525	30	24.9%	16.4%
11.00	2160	393	437	45	20.2%	11.3%	2511	231	409	34	16.3%	14.8%	2330	180	581	29	24.9%	16.1%
12.00	2321	387	493	39	21.2%	10.0%	2703	207	495	28	18.3%	13.4%	2190	152	557	23	25.4%	14.9%
13.00	2358	404	518	41	22.0%	10.1%	2640	206	473	24	17.9%	11.9%	2154	161	527	24	24.5%	15.2%
14.00	2600	405	537	37	20.7%	9.0%	2422	192	506	22	20.9%	11.2%	2173	162	348	22	16.0%	13.3%
15.00	2884	400	597	40	20.7%	9.9%	2372	195	479	30	20.2%	15.2%	2142	174	424	30	19.8%	17.0%
16.00	3409	336	606	34	17.8%	10.1%	2313	169	386	26	16.7%	15.1%	2252	167	332	26	14.8%	15.3%
17.00	3694	296	693	27	18.8%	9.2%	2360	159	474	19	20.1%	12.2%	1973	154	297	19	15.0%	12.6%
18.00	2774	255	551	23	19.9%	9.2%	2038	134	408	17	20.0%	12.3%	1863	129	291	17	15.6%	12.8%
19.00	1851	189	44	24	2.4%	12.7%	1601	123	43	24	2.7%	19.6%	1548	115	43	24	2.8%	20.8%
20.00	1277	142	27	22	2.1%	15.3%	1164	91	25	22	2.2%	23.7%	1279	100	25	22	2.0%	21.8%
21.00	956	109	24	19	2.6%	17.8%	973	71	23	19	2.3%	27.3%	935	83	23	19	2.4%	23.2%
22.00	735	74	13	13	1.8%	18.1%	861	49	13	13	1.6%	27.3%	554	45	13	13	2.4%	29.8%
23.00	440	63	0	0	0.0%	0.0%	664	50	0	0	0.0%	0.0%	336	47	0	0	0.0%	0.0%
12 hr	32605	4392	6600	467	20.2%	10.6%	27081	2422	4562	330	16.8%	13.6%	22787	1873	4456	300	19.6%	16.0%
24 hr	42808	5937	6756	572	15.8%	9.6%	35525	3494	4713	435	13.3%	12.4%	29826	2671	4607	404	15.4%	15.1%

**Link 5 - A249 between the A2 and M2**

**2031 Baseline + WKN Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	338	91	0	0	0.0%	0.0%	564	93	0	0	0.0%	0.0%	649	60	0	0	0.0%	0.0%
01.00	243	79	0	0	0.0%	0.0%	377	85	0	0	0.0%	0.0%	419	50	0	0	0.0%	0.0%
02.00	241	87	0	0	0.0%	0.0%	320	99	0	0	0.0%	0.0%	295	55	0	0	0.0%	0.0%
03.00	339	113	0	0	0.0%	0.0%	322	100	0	0	0.0%	0.0%	247	58	0	0	0.0%	0.0%
04.00	782	199	0	0	0.0%	0.0%	438	111	0	0	0.0%	0.0%	282	59	0	0	0.0%	0.0%
05.00	1878	328	12	9	0.6%	2.8%	976	190	12	9	1.2%	4.9%	567	97	12	9	2.1%	9.6%
06.00	3114	406	34	17	1.1%	4.2%	1459	237	34	17	2.3%	7.2%	863	134	34	17	3.9%	12.7%
07.00	4398	463	707	37	16.1%	8.0%	1997	268	111	32	5.6%	12.1%	1130	146	191	27	16.9%	18.5%
08.00	3983	469	1115	48	28.0%	10.3%	2559	286	225	31	8.8%	10.9%	1572	148	273	26	17.4%	17.6%
09.00	3071	485	683	46	22.2%	9.4%	2923	308	495	33	16.9%	10.8%	2319	202	366	28	15.8%	13.9%
10.00	2936	512	596	52	20.3%	10.1%	3343	290	539	35	16.1%	12.1%	3005	223	821	30	27.3%	13.3%
11.00	2990	501	596	45	19.9%	8.9%	3561	283	633	34	17.8%	12.1%	3336	222	913	29	27.4%	13.0%
12.00	3219	500	675	39	21.0%	7.8%	3852	258	771	28	20.0%	10.8%	3142	192	870	23	27.7%	11.8%
13.00	3262	517	716	41	21.9%	7.9%	3740	251	730	24	19.5%	9.7%	3064	196	816	24	26.6%	12.4%
14.00	3602	523	773	37	21.5%	7.1%	3444	235	788	22	22.9%	9.2%	3082	202	536	22	17.4%	10.7%
15.00	4030	511	887	40	22.0%	7.8%	3367	235	741	30	22.0%	12.6%	3045	215	650	30	21.4%	13.8%
16.00	4772	426	869	34	18.2%	8.0%	3278	204	582	26	17.7%	12.6%	3195	211	501	26	15.7%	12.1%
17.00	5149	371	996	28	19.3%	7.4%	3351	191	732	19	21.8%	10.2%	2791	193	446	19	16.0%	10.1%
18.00	3911	323	841	24	21.5%	7.3%	2909	164	635	17	21.8%	10.1%	2658	166	448	17	16.9%	10.0%
19.00	2596	244	44	24	1.7%	9.8%	2253	153	42	24	1.9%	15.6%	2177	143	42	24	2.0%	16.8%
20.00	1790	180	33	22	1.9%	12.0%	1639	112	25	22	1.5%	19.3%	1803	123	25	22	1.4%	17.6%
21.00	1337	138	30	19	2.2%	14.0%	1370	87	23	19	1.6%	22.2%	1315	105	23	19	1.7%	18.5%
22.00	1030	100	13	13	1.3%	13.4%	1225	65	13	13	1.1%	20.4%	786	60	13	13	1.7%	22.5%
23.00	621	86	0	0	0.0%	0.0%	945	66	0	0	0.0%	0.0%	475	62	0	0	0.0%	0.0%
12 hr	45324	5600	9454	470	20.9%	8.4%	38324	2974	6982	332	18.2%	11.2%	32339	2316	6831	300	21.1%	12.9%
24 hr	59632	7651	9621	575	16.1%	7.5%	50213	4373	7131	437	14.2%	10.0%	42217	3321	6981	404	16.5%	12.2%

Link 6 - M2 West

2031 Baseline + WKN Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	428	111	0	0	0.0%	0.0%	711	123	0	0	0.0%	0.0%	869	69	0	0	0.0%	0.0%
01.00	326	103	0	0	0.0%	0.0%	472	106	0	0	0.0%	0.0%	533	66	0	0	0.0%	0.0%
02.00	341	117	0	0	0.0%	0.0%	398	99	0	0	0.0%	0.0%	355	51	0	0	0.0%	0.0%
03.00	467	160	0	0	0.0%	0.0%	419	120	0	0	0.0%	0.0%	315	71	0	0	0.0%	0.0%
04.00	1075	267	0	0	0.0%	0.0%	566	151	0	0	0.0%	0.0%	338	62	0	0	0.0%	0.0%
05.00	2830	449	7	6	0.2%	1.3%	1199	213	7	6	0.5%	2.7%	687	98	7	6	1.0%	5.8%
06.00	4268	527	16	11	0.4%	2.0%	1804	269	16	11	0.9%	3.9%	1031	126	16	11	1.5%	8.3%
07.00	5707	549	214	21	3.8%	3.7%	2526	312	41	18	1.6%	5.6%	1411	140	65	17	4.6%	11.9%
08.00	5278	602	331	27	6.3%	4.5%	3240	318	73	17	2.3%	5.3%	1885	144	88	16	4.6%	11.1%
09.00	4374	627	211	26	4.8%	4.1%	3631	316	152	18	4.2%	5.8%	2784	192	115	17	4.1%	9.0%
10.00	4035	614	188	30	4.7%	4.8%	4151	308	165	19	4.0%	6.3%	3764	221	247	18	6.6%	8.3%
11.00	4028	598	185	25	4.6%	4.2%	4601	289	192	19	4.2%	6.5%	4302	249	273	18	6.3%	7.2%
12.00	4378	638	207	22	4.7%	3.4%	4825	266	229	15	4.8%	5.6%	4635	223	259	14	5.6%	6.3%
13.00	4543	660	219	23	4.8%	3.5%	4745	263	219	15	4.6%	5.7%	4402	234	244	15	5.5%	6.4%
14.00	4834	659	233	20	4.8%	3.1%	4370	257	235	13	5.4%	5.2%	4011	232	162	13	4.0%	5.7%
15.00	5340	641	265	22	5.0%	3.5%	4196	240	224	18	5.3%	7.6%	3831	222	198	18	5.2%	8.2%
16.00	6281	519	260	19	4.1%	3.6%	4375	224	177	16	4.0%	7.0%	4240	211	153	16	3.6%	7.5%
17.00	6679	425	297	15	4.4%	3.4%	4156	192	218	12	5.2%	6.2%	3860	198	135	12	3.5%	6.0%
18.00	4988	351	248	12	5.0%	3.5%	3665	172	189	10	5.2%	5.9%	3400	157	135	10	4.0%	6.5%
19.00	3247	272	20	15	0.6%	5.4%	2806	140	20	15	0.7%	10.6%	2808	141	20	15	0.7%	10.5%
20.00	2271	187	14	13	0.6%	7.1%	2029	102	14	13	0.7%	13.2%	2121	103	14	13	0.7%	13.0%
21.00	1668	132	13	12	0.8%	9.1%	1577	83	13	12	0.8%	14.5%	1505	88	13	12	0.9%	13.6%
22.00	1339	112	8	8	0.6%	7.4%	1568	63	8	8	0.5%	13.0%	970	62	8	8	0.9%	13.4%
23.00	800	108	0	0	0.0%	0.0%	1213	69	0	0	0.0%	0.0%	556	79	0	0	0.0%	0.0%
12 hr	60465	6882	2858	261	4.7%	3.8%	48483	3159	2113	190	4.4%	6.0%	42524	2424	2073	185	4.9%	7.6%
24 hr	79526	9426	2936	326	3.7%	3.5%	63245	4696	2191	255	3.5%	5.4%	54612	3438	2151	250	3.9%	7.3%



Link 7 - M2 East

2031 Baseline + WKN Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.0%	0.0%	650	110	0	0	0.0%	0.0%	795	61	0	0	0.0%	0.0%
01.00	297	92	0	0	0.0%	0.0%	430	94	0	0	0.0%	0.0%	487	58	0	0	0.0%	0.0%
02.00	311	105	0	0	0.0%	0.0%	363	88	0	0	0.0%	0.0%	323	44	0	0	0.0%	0.0%
03.00	426	144	0	0	0.0%	0.0%	382	108	0	0	0.0%	0.0%	287	63	0	0	0.0%	0.0%
04.00	984	242	0	0	0.0%	0.0%	517	136	0	0	0.0%	0.0%	308	54	0	0	0.0%	0.0%
05.00	2575	395	1	1	0.0%	0.2%	1082	178	1	1	0.1%	0.4%	611	72	1	1	0.2%	0.9%
06.00	3882	453	4	1	0.1%	0.3%	1623	217	4	1	0.2%	0.5%	913	86	4	1	0.4%	1.3%
07.00	5181	471	51	3	1.0%	0.6%	2281	255	10	2	0.4%	1.0%	1256	98	14	2	1.1%	1.9%
08.00	4760	521	72	4	1.5%	0.7%	2932	262	14	2	0.5%	0.9%	1687	103	16	2	1.0%	1.7%
09.00	3956	539	49	3	1.2%	0.6%	3286	256	27	3	0.8%	1.0%	2510	142	20	2	0.8%	1.3%
10.00	3642	525	44	4	1.2%	0.7%	3759	246	29	3	0.8%	1.1%	3398	165	43	2	1.3%	1.2%
11.00	3638	512	44	3	1.2%	0.6%	4173	229	34	3	0.8%	1.1%	3893	192	47	2	1.2%	1.0%
12.00	3964	558	49	3	1.2%	0.5%	4385	219	41	2	0.9%	1.0%	4208	179	45	2	1.1%	0.8%
13.00	4105	569	52	3	1.3%	0.5%	4299	207	39	2	0.9%	0.8%	3983	180	43	2	1.1%	0.9%
14.00	4376	573	53	3	1.2%	0.5%	3960	206	41	1	1.0%	0.7%	3635	182	29	1	0.8%	0.8%
15.00	4836	552	58	3	1.2%	0.5%	3797	185	39	2	1.0%	1.1%	3464	169	34	2	1.0%	1.2%
16.00	5703	446	59	3	1.0%	0.6%	3971	177	32	2	0.8%	1.0%	3849	165	28	2	0.7%	1.0%
17.00	6058	361	64	2	1.0%	0.6%	3768	150	40	1	1.0%	0.9%	3501	155	25	1	0.7%	0.8%
18.00	4542	305	48	2	1.1%	0.6%	3333	142	33	1	1.0%	0.8%	3093	128	24	1	0.8%	0.9%
19.00	2953	228	4	2	0.1%	0.7%	2552	107	4	2	0.2%	1.5%	2553	108	4	2	0.2%	1.5%
20.00	2064	154	2	1	0.1%	0.9%	1844	76	2	1	0.1%	1.9%	1928	76	2	1	0.1%	1.9%
21.00	1516	108	2	1	0.1%	1.2%	1433	63	2	1	0.1%	2.0%	1367	68	2	1	0.1%	1.9%
22.00	1223	100	1	1	0.1%	0.9%	1436	55	1	1	0.1%	1.6%	887	54	1	1	0.1%	1.7%
23.00	731	96	0	0	0.0%	0.0%	1111	60	0	0	0.0%	0.0%	508	70	0	0	0.0%	0.0%
12 hr	54761	5931	641	35	1.2%	0.6%	43944	2534	379	24	0.9%	1.0%	38476	1859	369	20	1.0%	1.1%
24 hr	72110	8146	655	42	0.9%	0.5%	57367	3827	392	31	0.7%	0.8%	49443	2672	382	27	0.8%	1.0%

**Link 8 - Swale Way north of Reams Way Junction**

**2031 Baseline + WKN Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	644	51	0	0	0.0%	0.0%	240	19	0	0	0.0%	0.0%	129	12	0	0	0.1%	0.0%
07.00	1414	85	2	0	0.2%	0.0%	349	22	0	0	0.1%	0.0%	154	12	1	0	0.4%	0.0%
08.00	1499	83	3	0	0.2%	0.0%	450	30	1	0	0.1%	0.0%	153	14	1	0	0.5%	0.0%
09.00	950	99	2	0	0.2%	0.0%	571	31	1	0	0.3%	0.0%	322	13	1	0	0.3%	0.0%
10.00	839	106	3	1	0.4%	0.9%	704	34	3	1	0.4%	2.9%	437	18	3	0	0.6%	0.0%
11.00	830	100	3	1	0.4%	1.0%	770	23	3	1	0.4%	4.3%	529	24	3	0	0.5%	0.0%
12.00	932	102	2	0	0.3%	0.0%	732	25	2	0	0.3%	0.0%	556	19	3	0	0.5%	0.0%
13.00	900	93	2	0	0.3%	0.0%	692	33	2	0	0.3%	0.0%	655	17	3	0	0.4%	0.0%
14.00	1077	97	3	0	0.2%	0.0%	614	23	2	0	0.4%	0.0%	467	13	2	0	0.4%	0.0%
15.00	1188	86	3	0	0.2%	0.0%	595	29	2	0	0.4%	0.0%	490	16	2	0	0.4%	0.0%
16.00	1421	76	3	0	0.2%	0.0%	553	20	2	0	0.3%	0.0%	539	17	2	0	0.3%	0.0%
17.00	1299	61	3	0	0.3%	0.0%	611	19	2	0	0.4%	0.0%	531	9	1	0	0.3%	0.0%
18.00	827	63	3	0	0.3%	0.0%	490	15	2	0	0.4%	0.0%	410	9	1	0	0.3%	0.0%
19.00	483	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	259	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.0%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13175	1052	33	2	0.3%	0.2%	7131	304	24	2	0.3%	0.7%	5243	184	21	0	0.4%	0.0%
24 hr	16116	1362	33	2	0.2%	0.1%	8933	431	24	2	0.3%	0.5%	6617	280	22	0	0.3%	0.0%

**Link 9 - Swale Way south of Reams Way Junction**

**2031 Baseline + WKN Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	656	57	0	0	0.0%	0.0%	273	20	0	0	0.0%	0.0%	133	13	0	0	0.1%	0.0%
07.00	1416	85	2	0	0.2%	0.0%	347	27	0	0	0.1%	0.0%	188	12	1	0	0.3%	0.0%
08.00	1432	94	3	0	0.2%	0.0%	484	26	1	0	0.1%	0.0%	155	7	1	0	0.5%	0.0%
09.00	917	105	2	0	0.3%	0.0%	575	35	1	0	0.3%	0.0%	324	15	1	0	0.3%	0.0%
10.00	828	107	3	1	0.4%	0.9%	716	25	3	1	0.4%	4.0%	474	15	3	0	0.5%	0.0%
11.00	850	108	3	1	0.4%	0.9%	775	35	3	1	0.4%	2.8%	506	17	3	0	0.6%	0.0%
12.00	917	98	2	0	0.3%	0.0%	749	34	2	0	0.3%	0.0%	522	15	3	0	0.5%	0.0%
13.00	950	92	2	0	0.3%	0.0%	622	32	2	0	0.4%	0.0%	497	21	3	0	0.5%	0.0%
14.00	1079	102	3	0	0.2%	0.0%	546	24	2	0	0.5%	0.0%	450	20	2	0	0.4%	0.0%
15.00	1159	93	3	0	0.2%	0.0%	523	21	2	0	0.4%	0.0%	415	18	2	0	0.5%	0.0%
16.00	1433	82	3	0	0.2%	0.0%	547	19	2	0	0.3%	0.0%	440	14	2	0	0.4%	0.0%
17.00	1370	64	3	0	0.2%	0.0%	596	21	2	0	0.4%	0.0%	487	21	1	0	0.3%	0.0%
18.00	858	63	3	0	0.3%	0.0%	496	17	2	0	0.4%	0.0%	402	16	1	0	0.3%	0.0%
19.00	477	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.0%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13210	1093	33	2	0.3%	0.2%	6976	316	24	2	0.3%	0.6%	4860	194	21	0	0.4%	0.0%
24 hr	16134	1403	33	2	0.2%	0.1%	8849	425	24	2	0.3%	0.5%	6172	278	22	0	0.3%	0.0%

**Link 10 - Swale Way south of Ridham Avenue Roundabout**

**2031 Baseline + WKN Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	565	37	0	0	0.0%	0.0%	197	12	0	0	0.0%	0.0%	99	5	0	0	0.1%	0.0%
07.00	1313	67	2	0	0.2%	0.0%	319	16	0	0	0.1%	0.0%	138	5	1	0	0.4%	0.0%
08.00	1401	71	3	0	0.2%	0.0%	421	17	1	0	0.2%	0.0%	139	4	1	0	0.6%	0.0%
09.00	869	83	2	0	0.3%	0.0%	542	18	1	0	0.3%	0.0%	312	4	1	0	0.4%	0.0%
10.00	741	88	3	1	0.4%	1.1%	681	16	3	1	0.4%	6.1%	404	8	3	0	0.6%	0.0%
11.00	740	75	3	1	0.4%	1.3%	764	11	3	1	0.4%	8.8%	518	9	3	0	0.5%	0.0%
12.00	823	81	2	0	0.3%	0.0%	717	15	2	0	0.3%	0.0%	540	11	3	0	0.5%	0.0%
13.00	833	74	2	0	0.3%	0.0%	658	16	2	0	0.3%	0.0%	639	9	3	0	0.4%	0.0%
14.00	971	77	3	0	0.3%	0.0%	607	13	2	0	0.4%	0.0%	466	5	2	0	0.4%	0.0%
15.00	1101	78	3	0	0.3%	0.0%	556	13	2	0	0.4%	0.0%	467	8	2	0	0.4%	0.0%
16.00	1353	65	3	0	0.2%	0.0%	532	13	2	0	0.3%	0.0%	521	11	2	0	0.3%	0.0%
17.00	1242	56	3	0	0.3%	0.0%	545	12	2	0	0.4%	0.0%	490	7	1	0	0.3%	0.0%
18.00	767	50	3	0	0.3%	0.0%	464	8	2	0	0.4%	0.0%	389	3	1	0	0.4%	0.0%
19.00	431	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.0%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12154	863	33	2	0.3%	0.2%	6806	170	24	2	0.3%	1.2%	5023	84	21	0	0.4%	0.0%
24 hr	14591	1055	33	2	0.2%	0.2%	8379	245	24	2	0.3%	0.8%	6218	120	22	0	0.3%	0.0%

**Link 11 - A249 North of Swale Way Junction**

**2031 Baseline + WKN Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact**

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact		2031 Baseline		Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	1	0	0.0%	0.0%	770	77	1	0	0.1%	0.0%	436	30	1	0	0.1%	0.0%
07.00	3012	191	91	0	3.0%	0.1%	1139	82	8	0	0.7%	0.2%	581	26	22	0	3.9%	0.0%
08.00	2710	235	162	0	6.0%	0.1%	1543	83	28	0	1.8%	0.2%	872	31	36	0	4.1%	0.0%
09.00	2053	238	87	0	4.2%	0.1%	1887	76	72	0	3.8%	0.2%	1368	48	52	0	3.8%	0.0%
10.00	1965	234	73	0	3.7%	0.1%	2223	85	79	0	3.6%	0.2%	2020	41	125	0	6.2%	0.0%
11.00	2067	230	74	0	3.6%	0.1%	2492	71	95	0	3.8%	0.2%	2331	38	140	0	6.0%	0.0%
12.00	2199	227	85	0	3.9%	0.1%	2640	63	119	0	4.5%	0.2%	2543	44	138	0	5.4%	0.0%
13.00	2235	222	91	0	4.1%	0.1%	2540	61	113	0	4.5%	0.0%	2417	47	128	0	5.3%	0.0%
14.00	2350	239	105	0	4.5%	0.1%	2406	57	123	0	5.1%	0.0%	2134	42	82	0	3.8%	0.0%
15.00	2574	205	126	0	4.9%	0.1%	2333	45	116	0	5.0%	0.0%	2049	45	102	0	5.0%	0.0%
16.00	3164	170	119	0	3.8%	0.1%	2290	49	90	0	3.9%	0.0%	2114	41	74	0	3.5%	0.0%
17.00	3303	126	142	0	4.3%	0.1%	2189	36	113	0	5.2%	0.0%	1964	39	67	0	3.4%	0.0%
18.00	2284	83	128	0	5.6%	0.2%	1847	36	100	0	5.4%	0.0%	1763	43	69	0	3.9%	0.0%
19.00	1532	66	1	0	0.1%	0.0%	1445	29	1	0	0.0%	0.0%	1364	30	1	0	0.0%	0.0%
20.00	1117	41	2	0	0.2%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	2	0	0.2%	0.0%	822	25	0	0	0.0%	0.0%	704	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.0%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.0%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29916	2398	1282	2	4.3%	0.1%	25528	742	1057	1	4.1%	0.1%	22156	485	1035	0	4.7%	0.0%
24 hr	37860	3121	1287	2	3.4%	0.1%	32342	1117	1058	1	3.3%	0.1%	27697	709	1036	0	3.7%	0.0%

**APPENDIX AJ: 2031 BASELINE, WKN OPERATIONAL, K3 OPERATIONAL AND 2031 CUMULATIVE DEVELOPMENT**

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Link 1 - Swale Way East of B2005 Groveshurst Roundabout

2031 Baseline + K3 Operational + WKN Operational + 2031 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	160	51	5	5	3.1%	9.7%	179	45	5	5	2.8%	10.9%	184	15	5	5	2.7%	32.9%
01.00	148	46	5	5	3.3%	10.8%	158	56	5	5	3.1%	8.9%	157	14	5	5	3.2%	35.3%
02.00	164	42	5	5	3.0%	11.8%	128	45	5	5	3.9%	10.9%	97	13	5	5	5.1%	38.1%
03.00	242	66	5	5	2.1%	7.5%	165	46	5	5	3.0%	10.7%	82	15	5	5	6.0%	32.9%
04.00	366	80	5	5	1.4%	6.2%	204	61	5	5	2.4%	8.2%	100	16	5	5	5.0%	30.9%
05.00	945	135	17	14	1.8%	10.6%	530	93	17	14	3.3%	15.3%	289	47	17	14	6.0%	30.5%
06.00	1116	189	45	22	4.0%	11.6%	517	134	45	22	8.6%	16.4%	247	75	45	22	18.0%	29.5%
07.00	1885	216	236	67	12.5%	30.9%	677	128	105	62	15.6%	48.4%	271	61	92	48	33.9%	79.2%
08.00	2193	206	267	78	12.2%	37.8%	705	110	94	61	13.4%	55.7%	286	57	81	47	28.2%	82.2%
09.00	1326	229	225	75	17.0%	32.5%	778	133	77	62	9.8%	46.9%	307	65	62	48	20.3%	74.0%
10.00	1207	251	220	81	18.3%	32.2%	886	133	79	64	8.9%	48.0%	326	74	66	50	20.2%	67.8%
11.00	1233	237	217	74	17.6%	31.0%	915	129	75	63	8.2%	49.1%	547	71	62	49	11.3%	69.0%
12.00	1352	222	229	68	16.9%	30.6%	937	105	71	57	7.6%	53.9%	847	55	57	43	6.8%	77.9%
13.00	1465	245	238	70	16.3%	28.7%	903	108	72	45	8.0%	42.0%	510	69	72	45	14.2%	65.6%
14.00	1446	237	220	66	15.2%	28.0%	882	105	65	42	7.3%	40.5%	523	64	64	42	12.2%	66.5%
15.00	1571	234	212	70	13.5%	29.8%	898	111	66	51	7.4%	45.8%	529	66	66	51	12.4%	77.0%
16.00	1700	190	228	64	13.4%	33.6%	805	96	75	47	9.3%	48.7%	647	53	75	47	11.5%	88.1%
17.00	1800	155	210	57	11.7%	36.9%	810	81	81	40	10.0%	49.8%	666	50	80	40	12.0%	80.6%
18.00	1202	129	99	40	8.3%	31.3%	690	72	39	25	5.7%	34.6%	451	41	39	25	8.6%	60.8%
19.00	729	97	52	32	7.1%	32.7%	550	68	52	32	9.4%	46.4%	516	51	52	32	10.0%	61.6%
20.00	544	93	33	29	6.1%	31.4%	401	69	33	29	8.3%	42.6%	364	44	33	29	9.1%	66.7%
21.00	384	68	36	28	9.3%	41.1%	313	49	36	28	11.4%	56.9%	221	33	36	28	16.1%	83.9%
22.00	300	49	26	22	8.7%	44.7%	276	25	26	22	9.5%	87.3%	305	10	26	22	8.6%	219.8%
23.00	198	46	5	5	2.5%	10.8%	204	29	5	5	2.4%	17.0%	197	10	5	5	2.5%	49.6%
12 hr	18381	2550	2603	809	14.2%	31.7%	9886	1311	899	620	9.1%	47.3%	5909	727	816	537	13.8%	73.8%
24 hr	23678	3513	2841	986	12.0%	28.1%	13512	2032	1137	797	8.4%	39.2%	8667	1070	1054	714	12.2%	66.7%

Link 2 - Barge Way North of Swale Roundabout

2031 Baseline + K3 Operational + WKN Operational + 2031 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	128	35	5	5	3.9%	14.1%	133	31	5	5	3.7%	15.9%	100	26	5	5	5.0%	18.9%
01.00	131	32	5	5	3.8%	15.6%	107	26	5	5	4.6%	18.9%	87	25	5	5	5.7%	19.7%
02.00	169	33	5	5	2.9%	15.0%	130	35	5	5	3.8%	14.1%	88	22	5	5	5.6%	22.4%
03.00	223	51	5	5	2.2%	9.6%	166	43	5	5	3.0%	11.4%	81	25	5	5	6.1%	19.7%
04.00	308	63	5	5	1.6%	7.9%	211	57	5	5	2.3%	8.8%	104	28	5	5	4.8%	17.6%
05.00	545	99	5	5	0.9%	5.0%	346	85	5	5	1.4%	5.8%	194	55	5	5	2.6%	9.1%
06.00	530	138	20	5	3.8%	3.6%	308	123	20	5	6.6%	4.0%	168	77	20	5	12.1%	6.4%
07.00	515	147	77	49	15.0%	33.3%	301	112	77	49	25.6%	43.5%	156	77	63	35	40.7%	44.9%
08.00	515	145	60	49	11.7%	33.9%	278	116	60	49	21.7%	42.2%	160	66	46	35	29.0%	52.2%
09.00	434	163	46	47	10.7%	28.9%	276	122	46	47	16.8%	38.6%	155	77	33	33	21.1%	42.3%
10.00	446	169	46	47	10.4%	27.8%	287	111	46	47	16.2%	42.3%	159	82	33	33	20.6%	39.9%
11.00	403	168	46	47	11.5%	27.9%	259	117	46	47	17.9%	40.2%	183	94	33	33	17.8%	34.5%
12.00	417	152	46	47	11.1%	31.0%	238	79	46	47	19.5%	59.3%	219	65	33	33	14.9%	50.2%
13.00	511	177	47	43	9.2%	24.6%	304	95	33	29	11.0%	30.6%	214	85	33	29	15.6%	34.2%
14.00	506	186	47	43	9.3%	23.4%	275	107	33	29	12.1%	27.1%	187	83	33	29	17.9%	35.1%
15.00	508	184	48	49	9.5%	26.6%	293	116	35	35	11.8%	29.7%	182	86	35	35	19.0%	40.2%
16.00	524	149	59	49	11.3%	32.9%	245	76	46	35	18.6%	45.4%	221	82	46	35	20.7%	42.1%
17.00	497	113	66	43	13.2%	38.5%	201	69	52	29	25.9%	42.1%	181	60	52	29	28.7%	48.5%
18.00	369	94	33	31	8.9%	32.7%	187	53	19	16	10.2%	31.2%	143	47	19	16	13.3%	35.3%
19.00	248	85	31	20	12.5%	23.5%	134	69	31	20	23.1%	28.8%	130	54	31	20	23.8%	36.9%
20.00	183	64	20	20	10.9%	31.1%	106	57	20	20	18.9%	35.2%	100	50	20	20	20.1%	40.2%
21.00	144	47	26	22	18.2%	47.0%	89	40	26	22	29.5%	54.6%	74	34	26	22	35.6%	64.3%
22.00	109	32	26	22	24.2%	68.6%	67	23	26	22	39.3%	94.9%	73	15	26	22	36.1%	146.0%
23.00	143	41	5	5	3.5%	12.1%	77	24	5	5	6.5%	20.5%	74	20	5	5	6.7%	24.7%
12 hr	5645	1845	624	545	11.1%	29.5%	3143	1174	541	459	17.2%	39.1%	2159	905	458	373	21.2%	41.2%
24 hr	8506	2566	783	668	9.2%	26.0%	5018	1788	700	582	13.9%	32.6%	3430	1337	617	496	18.0%	37.1%



Link 3 - Barge Way East of Fleet End Roundabout

2031 Baseline + K3 Operational + WKN Operational + 2031 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	18	5	5	12.5%	27.1%	90	14	5	5	5.5%	35.3%	14	10	5	5	35.3%	49.6%
01.00	38	17	5	5	12.9%	29.4%	34	17	5	5	14.5%	29.0%	11	10	5	5	45.1%	49.6%
02.00	57	20	5	5	8.7%	25.4%	35	25	5	5	14.1%	19.7%	13	10	5	5	38.1%	49.6%
03.00	71	21	5	5	7.0%	23.3%	19	12	5	5	26.0%	41.3%	11	10	5	5	45.1%	49.6%
04.00	111	27	5	5	4.5%	18.2%	38	20	5	5	12.9%	24.7%	20	10	5	5	24.7%	49.6%
05.00	226	36	5	5	2.2%	13.9%	97	17	5	5	5.1%	29.0%	55	11	5	5	9.0%	45.1%
06.00	275	54	20	5	7.4%	9.1%	109	39	20	5	18.5%	12.6%	55	13	20	5	37.0%	38.1%
07.00	301	65	78	49	25.8%	75.0%	125	35	78	49	62.2%	138.7%	64	13	63	35	98.6%	265.5%
08.00	292	73	61	49	20.8%	66.7%	125	39	61	49	48.6%	124.4%	80	10	46	35	58.3%	346.1%
09.00	224	76	47	47	21.0%	61.8%	118	39	47	47	39.9%	119.3%	58	10	33	33	56.2%	326.1%
10.00	213	78	47	47	22.1%	59.9%	106	34	47	47	44.2%	136.9%	59	10	33	33	55.6%	326.1%
11.00	188	75	47	47	25.0%	62.5%	91	20	47	47	51.3%	233.4%	52	12	33	33	62.7%	271.2%
12.00	221	76	47	47	21.2%	61.6%	84	15	47	47	56.1%	311.8%	59	11	33	33	54.9%	296.2%
13.00	256	78	48	43	18.6%	56.0%	111	14	33	29	30.1%	207.2%	92	10	33	29	36.4%	291.0%
14.00	234	88	48	43	20.4%	49.5%	88	13	33	29	37.8%	223.3%	71	10	33	29	46.9%	291.0%
15.00	211	85	49	49	23.2%	57.8%	80	17	35	35	43.4%	202.6%	61	11	35	35	56.3%	314.3%
16.00	243	63	60	49	24.7%	77.2%	87	14	46	35	52.7%	246.4%	81	13	46	35	56.6%	265.5%
17.00	271	43	66	43	24.5%	100.6%	86	11	52	29	60.5%	264.3%	95	10	52	29	54.7%	291.0%
18.00	147	30	33	31	22.7%	102.6%	62	12	19	16	30.7%	137.0%	59	11	19	16	32.3%	149.6%
19.00	88	28	31	20	35.1%	70.3%	47	10	31	20	66.4%	199.8%	50	10	31	20	62.3%	199.8%
20.00	77	27	20	20	25.8%	75.1%	29	12	20	20	67.9%	166.2%	28	10	20	20	70.3%	199.8%
21.00	67	19	26	22	38.9%	113.9%	27	10	26	22	96.5%	219.8%	26	12	26	22	100.2%	182.8%
22.00	41	21	26	22	64.3%	105.0%	12	10	26	22	218.1%	219.8%	19	11	26	22	137.3%	199.6%
23.00	40	17	5	5	12.4%	29.0%	11	10	5	5	45.1%	49.6%	17	11	5	5	29.0%	45.1%
12 hr	2801	831	630	545	22.5%	65.6%	1163	265	544	459	46.8%	173.3%	831	131	458	373	55.2%	284.2%
24 hr	3932	1136	789	668	20.1%	58.8%	1712	462	703	582	41.0%	126.2%	1150	259	617	496	53.6%	191.5%

Link 4 - A249 South of Swale Way Junction

2031 Baseline + K3 Operational + WKN Operational + 2031 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	235	62	5	5	2.1%	8.0%	393	63	5	5	1.3%	7.9%	453	40	5	5	1.1%	12.3%
01.00	169	53	5	5	2.9%	9.3%	262	58	5	5	1.9%	8.6%	291	33	5	5	1.7%	14.9%
02.00	167	60	5	5	3.0%	8.3%	222	68	5	5	2.2%	7.3%	204	37	5	5	2.4%	13.6%
03.00	237	78	5	5	2.1%	6.4%	223	68	5	5	2.2%	7.3%	171	39	5	5	2.9%	12.8%
04.00	548	139	5	5	0.9%	3.6%	305	76	5	5	1.6%	6.5%	196	40	5	5	2.5%	12.5%
05.00	1339	239	17	14	1.3%	6.0%	695	140	17	14	2.5%	10.2%	409	75	17	14	4.2%	19.0%
06.00	2212	303	44	22	2.0%	7.3%	1041	181	44	22	4.2%	12.2%	625	109	44	22	7.0%	20.1%
07.00	3124	339	538	66	17.2%	19.6%	1415	193	129	62	9.1%	32.0%	801	106	170	48	21.3%	45.5%
08.00	2874	343	770	77	26.8%	22.5%	1803	204	200	61	11.1%	29.6%	1107	106	219	47	19.8%	44.5%
09.00	2192	357	522	74	23.8%	20.7%	2048	223	353	62	17.2%	27.7%	1628	147	262	48	16.1%	32.9%
10.00	2101	378	469	80	22.3%	21.2%	2343	211	381	63	16.3%	30.0%	2090	164	545	50	26.1%	30.6%
11.00	2136	369	466	73	21.8%	19.8%	2486	206	438	63	17.6%	30.4%	2312	162	601	49	26.0%	30.4%
12.00	2296	362	522	67	22.7%	18.6%	2678	183	523	56	19.5%	30.8%	2172	135	578	43	26.6%	31.8%
13.00	2329	380	551	70	23.6%	18.4%	2619	189	498	45	19.0%	24.1%	2133	144	552	45	25.9%	31.6%
14.00	2571	381	571	66	22.2%	17.3%	2400	174	530	42	22.1%	24.3%	2151	145	373	42	17.3%	29.3%
15.00	2860	376	626	69	21.9%	18.4%	2354	178	501	51	21.3%	28.7%	2124	156	445	51	20.9%	32.5%
16.00	3385	312	636	63	18.8%	20.3%	2296	151	407	47	17.7%	30.9%	2234	150	353	47	15.8%	31.2%
17.00	3658	272	734	56	20.1%	20.7%	2331	142	507	40	21.7%	28.5%	1944	136	329	40	16.9%	29.6%
18.00	2762	243	567	40	20.5%	16.4%	2033	129	416	25	20.5%	19.3%	1858	124	299	25	16.1%	20.1%
19.00	1846	184	51	32	2.8%	17.2%	1596	118	51	32	3.2%	26.9%	1543	111	51	32	3.3%	28.6%
20.00	1272	137	35	29	2.7%	21.4%	1159	86	33	29	2.8%	33.9%	1274	95	33	29	2.6%	31.0%
21.00	947	104	37	28	3.9%	27.0%	964	66	35	28	3.7%	42.4%	926	78	35	28	3.8%	35.7%
22.00	726	69	26	22	3.6%	32.0%	852	44	26	22	3.1%	50.0%	545	40	26	22	4.8%	55.1%
23.00	435	58	5	5	1.1%	8.5%	659	45	5	5	0.8%	11.1%	331	42	5	5	1.5%	11.9%
12 hr	32289	4112	6971	803	21.6%	19.5%	26806	2183	4883	617	18.2%	28.3%	22554	1674	4727	537	21.0%	32.1%
24 hr	42420	5597	7211	980	17.0%	17.5%	35179	3194	5119	794	14.6%	24.8%	29521	2413	4963	714	16.8%	29.6%

Link 5 - A249 between the A2 and M2

2031 Baseline + K3 Operational + WKN Operational + 2031 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	333	86	5	5	1.5%	5.8%	559	88	5	5	0.9%	5.7%	644	55	5	5	0.8%	9.0%
01.00	238	74	5	5	2.1%	6.7%	372	80	5	5	1.3%	6.2%	414	45	5	5	1.2%	11.0%
02.00	236	82	5	5	2.1%	6.0%	315	94	5	5	1.6%	5.3%	290	50	5	5	1.7%	10.0%
03.00	334	108	5	5	1.5%	4.6%	317	95	5	5	1.6%	5.2%	242	53	5	5	2.1%	9.3%
04.00	777	194	5	5	0.6%	2.6%	433	106	5	5	1.1%	4.7%	277	54	5	5	1.8%	9.2%
05.00	1873	323	17	14	0.9%	4.4%	971	185	17	14	1.8%	7.7%	562	92	17	14	3.0%	15.5%
06.00	3105	401	43	22	1.4%	5.5%	1451	232	43	22	2.9%	9.5%	854	129	43	22	5.0%	17.1%
07.00	4370	438	741	67	17.0%	15.4%	1968	243	146	63	7.4%	25.8%	1109	129	216	48	19.5%	37.6%
08.00	3947	444	1156	78	29.3%	17.7%	2523	261	266	62	10.5%	23.5%	1544	130	306	47	19.8%	36.3%
09.00	3046	460	712	75	23.4%	16.3%	2898	283	525	63	18.1%	22.1%	2301	184	386	48	16.8%	26.2%
10.00	2911	487	625	81	21.5%	16.7%	3318	265	569	64	17.1%	24.3%	2988	206	841	50	28.2%	24.3%
11.00	2965	476	625	74	21.1%	15.6%	3536	258	662	64	18.7%	24.6%	3319	205	934	49	28.1%	24.0%
12.00	3193	475	704	68	22.1%	14.4%	3827	233	800	57	20.9%	24.5%	3125	174	890	43	28.5%	24.6%
13.00	3233	492	750	71	23.2%	14.4%	3719	234	755	45	20.3%	19.4%	3043	179	841	45	27.6%	25.4%
14.00	3573	498	807	67	22.6%	13.4%	3422	217	812	42	23.7%	19.5%	3060	184	560	42	18.3%	23.0%
15.00	4005	486	918	70	22.9%	14.4%	3349	218	762	51	22.8%	23.4%	3027	197	671	51	22.2%	25.8%
16.00	4747	401	899	64	18.9%	16.0%	3261	186	603	47	18.5%	25.2%	3177	193	522	47	16.4%	24.2%
17.00	5113	345	1036	57	20.3%	16.6%	3322	173	763	40	23.0%	23.3%	2762	175	478	40	17.3%	23.1%
18.00	3899	310	859	41	22.0%	13.2%	2904	159	643	25	22.1%	15.6%	2653	161	456	25	17.2%	15.4%
19.00	2591	239	51	32	2.0%	13.2%	2248	148	50	32	2.2%	21.3%	2172	138	50	32	2.3%	22.9%
20.00	1785	175	41	29	2.3%	16.7%	1634	107	33	29	2.0%	27.3%	1798	118	33	29	1.8%	24.8%
21.00	1328	133	42	28	3.2%	21.0%	1361	82	35	28	2.6%	33.9%	1306	100	35	28	2.7%	28.1%
22.00	1021	95	26	22	2.5%	23.1%	1216	60	26	22	2.1%	36.4%	777	55	26	22	3.3%	40.3%
23.00	616	81	5	5	0.8%	6.2%	940	61	5	5	0.5%	8.1%	470	57	5	5	1.1%	8.7%
12 hr	45002	5311	9832	815	21.8%	15.3%	38048	2731	7306	623	19.2%	22.8%	32108	2118	7102	537	22.1%	25.3%
24 hr	59239	7303	10082	992	17.0%	13.6%	49865	4070	7539	800	15.1%	19.6%	41914	3063	7335	714	17.5%	23.3%

Link 6 - M2 West

2031 Baseline + K3 Operational + WKN Operational + 2031 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	425	108	3	3	0.7%	2.8%	708	120	3	3	0.4%	2.6%	866	66	3	3	0.4%	4.6%
01.00	323	100	3	3	0.9%	3.1%	469	103	3	3	0.7%	3.0%	530	63	3	3	0.6%	4.9%
02.00	338	114	3	3	0.9%	2.7%	395	96	3	3	0.8%	3.2%	351	48	3	3	0.9%	6.4%
03.00	464	157	3	3	0.7%	1.9%	416	117	3	3	0.7%	2.6%	312	68	3	3	1.0%	4.5%
04.00	1072	263	3	3	0.3%	1.2%	563	148	3	3	0.5%	2.1%	335	59	3	3	0.9%	5.2%
05.00	2827	446	10	9	0.3%	2.0%	1196	210	10	9	0.8%	4.2%	684	95	10	9	1.4%	9.3%
06.00	4264	524	20	14	0.5%	2.6%	1800	266	20	14	1.1%	5.1%	1026	123	20	14	1.9%	11.0%
07.00	5694	537	230	35	4.0%	6.5%	2513	300	57	32	2.3%	10.7%	1399	130	79	30	5.6%	23.0%
08.00	5262	589	349	42	6.6%	7.1%	3224	306	91	32	2.8%	10.3%	1870	133	104	29	5.6%	21.8%
09.00	4362	615	225	40	5.2%	6.5%	3619	304	166	32	4.6%	10.6%	2773	181	127	30	4.6%	16.4%
10.00	4023	602	202	44	5.0%	7.2%	4139	296	179	33	4.3%	11.2%	3753	210	259	31	6.9%	14.7%
11.00	4016	586	199	39	5.0%	6.7%	4589	276	206	33	4.5%	11.9%	4291	238	286	30	6.7%	12.8%
12.00	4365	626	221	36	5.1%	5.7%	4813	254	243	29	5.1%	11.3%	4624	212	271	26	5.9%	12.5%
13.00	4530	648	234	37	5.2%	5.7%	4733	252	233	28	4.9%	11.1%	4390	223	258	28	5.9%	12.5%
14.00	4821	647	248	35	5.2%	5.4%	4358	246	249	26	5.7%	10.6%	3999	221	176	26	4.4%	11.9%
15.00	5328	629	280	37	5.3%	5.9%	4185	229	237	31	5.7%	13.7%	3820	211	211	31	5.5%	14.9%
16.00	6269	506	275	33	4.4%	6.6%	4365	213	190	29	4.4%	13.6%	4229	200	166	29	3.9%	14.4%
17.00	6664	412	314	29	4.7%	7.0%	4142	182	234	25	5.7%	13.7%	3845	188	152	25	3.9%	13.3%
18.00	4984	347	255	19	5.1%	5.4%	3662	169	194	15	5.3%	9.0%	3397	154	140	15	4.1%	9.9%
19.00	3244	269	25	19	0.8%	7.2%	2803	137	25	19	0.9%	14.2%	2805	138	25	19	0.9%	14.1%
20.00	2268	184	19	18	0.8%	9.8%	2026	99	19	18	0.9%	18.3%	2118	100	19	18	0.9%	18.1%
21.00	1664	129	19	17	1.2%	13.4%	1572	80	19	17	1.2%	21.7%	1500	85	19	17	1.3%	20.4%
22.00	1335	109	15	14	1.1%	12.5%	1564	60	15	14	0.9%	22.5%	965	59	15	14	1.5%	23.1%
23.00	796	105	3	3	0.4%	2.9%	1210	66	3	3	0.3%	4.7%	553	76	3	3	0.6%	4.0%
12 hr	60318	6744	3032	425	5.0%	6.3%	48343	3029	2278	345	4.7%	11.4%	42392	2301	2230	331	5.3%	14.4%
24 hr	79338	9252	3158	534	4.0%	5.8%	63065	4530	2404	455	3.8%	10.0%	54439	3279	2356	440	4.3%	13.4%

Link 7 - M2 East

2031 Baseline + K3 Operational + WKN Operational + 2031 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.1%	0.3%	649	110	0	0	0.1%	0.3%	795	60	0	0	0.0%	0.6%
01.00	296	92	0	0	0.1%	0.4%	430	94	0	0	0.1%	0.4%	487	57	0	0	0.1%	0.6%
02.00	310	104	0	0	0.1%	0.3%	363	88	0	0	0.1%	0.4%	322	44	0	0	0.1%	0.8%
03.00	425	144	0	0	0.1%	0.2%	382	107	0	0	0.1%	0.3%	287	62	0	0	0.1%	0.5%
04.00	983	241	0	0	0.0%	0.1%	516	136	0	0	0.1%	0.2%	307	53	0	0	0.1%	0.6%
05.00	2574	394	1	1	0.1%	0.2%	1081	177	1	1	0.1%	0.5%	611	72	1	1	0.2%	1.3%
06.00	3881	453	5	1	0.1%	0.3%	1623	217	5	1	0.3%	0.7%	912	85	5	1	0.5%	1.7%
07.00	5178	469	54	5	1.0%	1.1%	2279	253	13	5	0.6%	2.0%	1254	97	16	3	1.2%	3.4%
08.00	4756	519	76	6	1.6%	1.2%	2929	260	18	5	0.6%	1.9%	1685	102	19	3	1.1%	3.1%
09.00	3954	537	51	6	1.3%	1.1%	3284	254	29	5	0.9%	2.0%	2509	141	21	3	0.9%	2.3%
10.00	3640	523	46	6	1.3%	1.2%	3757	244	32	5	0.8%	2.1%	3397	164	44	3	1.3%	2.0%
11.00	3636	509	46	6	1.3%	1.1%	4170	227	36	5	0.9%	2.2%	3891	191	49	3	1.2%	1.7%
12.00	3962	556	52	5	1.3%	1.0%	4383	217	43	5	1.0%	2.2%	4207	178	47	3	1.1%	1.6%
13.00	4103	567	55	6	1.3%	1.0%	4297	205	41	3	1.0%	1.5%	3981	179	45	3	1.1%	1.7%
14.00	4373	571	56	5	1.3%	0.9%	3959	204	43	3	1.1%	1.4%	3634	181	31	3	0.8%	1.6%
15.00	4834	550	60	6	1.2%	1.0%	3796	184	40	3	1.1%	1.8%	3462	168	36	3	1.0%	2.0%
16.00	5701	444	62	5	1.1%	1.2%	3970	176	34	3	0.8%	1.8%	3847	164	29	3	0.8%	1.9%
17.00	6054	359	68	5	1.1%	1.3%	3765	148	43	3	1.1%	1.8%	3498	154	28	3	0.8%	1.8%
18.00	4541	303	50	4	1.1%	1.2%	3333	142	34	2	1.0%	1.2%	3092	128	25	2	0.8%	1.3%
19.00	2953	228	5	2	0.2%	0.9%	2551	107	5	2	0.2%	2.0%	2553	108	5	2	0.2%	2.0%
20.00	2064	153	2	2	0.1%	1.3%	1844	75	2	2	0.1%	2.6%	1928	76	2	2	0.1%	2.6%
21.00	1515	108	3	2	0.2%	1.7%	1432	63	3	2	0.2%	3.0%	1366	68	3	2	0.2%	2.8%
22.00	1222	100	2	1	0.2%	1.5%	1435	55	2	1	0.1%	2.7%	886	54	2	1	0.2%	2.7%
23.00	730	96	0	0	0.0%	0.3%	1111	60	0	0	0.0%	0.6%	507	69	0	0	0.1%	0.5%
12 hr	54731	5906	676	65	1.2%	1.1%	43920	2515	406	47	0.9%	1.9%	38458	1846	389	36	1.0%	1.9%
24 hr	72075	8117	696	76	1.0%	0.9%	57338	3804	426	59	0.7%	1.5%	49419	2655	410	48	0.8%	1.8%

Link 8 - Swale Way north of Reams Way Junction

2031 Baseline + K3 Operational + WKN Operational + 2031 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	644	51	0	0	0.0%	0.0%	240	19	0	0	0.0%	0.0%	129	12	0	0	0.1%	0.0%
07.00	1413	84	3	0	0.2%	0.4%	348	22	1	0	0.2%	1.4%	154	12	1	0	0.4%	0.0%
08.00	1498	83	4	0	0.3%	0.4%	450	30	1	0	0.2%	1.1%	153	14	1	0	0.6%	0.0%
09.00	949	98	3	0	0.3%	0.3%	570	31	2	0	0.3%	1.0%	322	13	1	0	0.3%	0.0%
10.00	839	106	3	1	0.4%	1.2%	704	34	3	1	0.4%	3.9%	437	18	3	0	0.6%	0.0%
11.00	830	100	3	1	0.4%	1.3%	770	23	3	1	0.4%	5.7%	529	24	3	0	0.5%	0.0%
12.00	931	102	3	0	0.3%	0.3%	732	25	3	0	0.4%	1.3%	556	19	3	0	0.5%	0.0%
13.00	900	93	3	0	0.3%	0.3%	692	33	2	0	0.3%	0.0%	655	17	3	0	0.4%	0.0%
14.00	1077	97	3	0	0.3%	0.3%	614	23	3	0	0.4%	0.0%	467	13	2	0	0.4%	0.0%
15.00	1187	86	3	0	0.3%	0.4%	595	29	2	0	0.4%	0.0%	490	16	2	0	0.4%	0.0%
16.00	1421	76	3	0	0.2%	0.4%	553	20	2	0	0.3%	0.0%	539	17	2	0	0.3%	0.0%
17.00	1298	61	4	0	0.3%	0.5%	611	19	2	0	0.4%	0.0%	531	9	1	0	0.3%	0.0%
18.00	827	63	3	0	0.4%	0.5%	490	15	2	0	0.4%	0.0%	410	9	1	0	0.3%	0.0%
19.00	483	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	258	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.1%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13171	1048	37	6	0.3%	0.6%	7129	303	26	4	0.4%	1.3%	5243	184	22	0	0.4%	0.0%
24 hr	16112	1358	38	6	0.2%	0.4%	8930	429	26	4	0.3%	0.9%	6616	280	22	0	0.3%	0.0%

Link 9 - Swale Way south of Reams Way Junction

2031 Baseline + K3 Operational + WKN Operational + 2031 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	656	57	0	0	0.0%	0.0%	273	20	0	0	0.0%	0.0%	133	13	0	0	0.1%	0.0%
07.00	1416	85	3	0	0.2%	0.4%	346	27	1	0	0.2%	1.2%	188	12	1	0	0.3%	0.0%
08.00	1431	93	4	0	0.3%	0.3%	484	26	1	0	0.2%	1.2%	155	7	1	0	0.6%	0.0%
09.00	917	105	3	0	0.3%	0.3%	574	35	2	0	0.3%	0.9%	324	15	1	0	0.3%	0.0%
10.00	828	107	3	1	0.4%	1.2%	716	25	3	1	0.4%	5.3%	474	15	3	0	0.5%	0.0%
11.00	850	108	3	1	0.4%	1.2%	775	35	3	1	0.4%	3.8%	506	17	3	0	0.6%	0.0%
12.00	917	98	3	0	0.3%	0.3%	749	34	3	0	0.4%	0.9%	522	15	3	0	0.5%	0.0%
13.00	949	92	3	0	0.3%	0.3%	622	32	2	0	0.4%	0.0%	497	21	3	0	0.5%	0.0%
14.00	1079	102	3	0	0.3%	0.3%	546	24	3	0	0.5%	0.0%	450	20	2	0	0.4%	0.0%
15.00	1159	93	3	0	0.3%	0.3%	523	21	2	0	0.4%	0.0%	415	18	2	0	0.5%	0.0%
16.00	1432	81	3	0	0.2%	0.4%	547	19	2	0	0.3%	0.0%	440	14	2	0	0.4%	0.0%
17.00	1369	64	4	0	0.3%	0.5%	596	21	2	0	0.4%	0.0%	487	21	1	0	0.3%	0.0%
18.00	858	63	3	0	0.3%	0.5%	496	17	2	0	0.4%	0.0%	402	16	1	0	0.3%	0.0%
19.00	477	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.1%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13206	1090	37	6	0.3%	0.5%	6974	315	26	4	0.4%	1.2%	4860	194	22	0	0.4%	0.0%
24 hr	16130	1399	38	6	0.2%	0.4%	8846	423	26	4	0.3%	0.9%	6171	278	22	0	0.4%	0.0%

Link 10 - Swale Way south of Ridham Avenue Roundabout

2031 Baseline + K3 Operational + WKN Operational + 2031 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	565	37	0	0	0.0%	0.0%	197	12	0	0	0.1%	0.0%	99	5	0	0	0.1%	0.0%
07.00	1312	66	3	0	0.2%	0.5%	319	16	1	0	0.2%	2.0%	138	5	1	0	0.5%	0.0%
08.00	1401	70	4	0	0.3%	0.4%	421	17	1	0	0.2%	1.9%	139	4	1	0	0.6%	0.0%
09.00	869	82	3	0	0.3%	0.4%	541	18	2	0	0.3%	1.8%	312	4	1	0	0.4%	0.0%
10.00	741	87	3	1	0.4%	1.5%	681	16	3	1	0.4%	8.2%	404	8	3	0	0.6%	0.0%
11.00	739	75	3	1	0.5%	1.8%	763	11	3	1	0.4%	12.0%	518	9	3	0	0.5%	0.0%
12.00	822	81	3	0	0.3%	0.4%	717	15	3	0	0.4%	2.1%	540	11	3	0	0.5%	0.0%
13.00	833	73	3	0	0.3%	0.4%	658	16	2	0	0.4%	0.0%	639	9	3	0	0.4%	0.0%
14.00	971	76	3	0	0.3%	0.4%	607	13	3	0	0.4%	0.0%	466	5	2	0	0.4%	0.0%
15.00	1101	78	3	0	0.3%	0.4%	556	13	2	0	0.4%	0.0%	467	8	2	0	0.4%	0.0%
16.00	1353	65	3	0	0.2%	0.5%	532	13	2	0	0.3%	0.0%	521	11	2	0	0.3%	0.0%
17.00	1242	55	4	0	0.3%	0.6%	545	12	2	0	0.4%	0.0%	490	7	1	0	0.3%	0.0%
18.00	767	49	3	0	0.4%	0.6%	464	8	2	0	0.4%	0.0%	389	3	1	0	0.4%	0.0%
19.00	431	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.1%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12150	859	37	6	0.3%	0.7%	6804	168	26	4	0.4%	2.3%	5023	84	22	0	0.4%	0.0%
24 hr	14587	1052	38	6	0.3%	0.5%	8376	243	26	4	0.3%	1.6%	6217	120	22	0	0.4%	0.0%



Link 11 - A249 North of Swale Way Junction

2031 Baseline + K3 Operational + WKN Operational + 2031 Cumulative (K3 (0-75MW)) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	1	0	0.0%	0.0%	770	77	1	0	0.1%	0.0%	436	30	1	0	0.1%	0.0%
07.00	3011	190	91	0	3.0%	0.2%	1138	81	8	0	0.7%	0.5%	581	26	23	0	3.9%	0.0%
08.00	2710	235	162	0	6.0%	0.2%	1542	83	29	0	1.9%	0.5%	871	31	36	0	4.2%	0.0%
09.00	2053	237	87	0	4.2%	0.2%	1887	76	72	0	3.8%	0.5%	1368	48	52	0	3.8%	0.0%
10.00	1965	234	73	0	3.7%	0.2%	2223	85	79	0	3.6%	0.5%	2020	41	125	0	6.2%	0.0%
11.00	2067	230	74	0	3.6%	0.2%	2492	70	95	0	3.8%	0.6%	2331	38	140	0	6.0%	0.0%
12.00	2199	227	86	0	3.9%	0.2%	2640	62	119	0	4.5%	0.6%	2543	44	138	0	5.4%	0.0%
13.00	2234	221	92	0	4.1%	0.2%	2539	61	114	0	4.5%	0.0%	2416	47	128	0	5.3%	0.0%
14.00	2349	239	106	0	4.5%	0.2%	2405	57	123	0	5.1%	0.0%	2133	42	82	0	3.8%	0.0%
15.00	2574	205	126	0	4.9%	0.2%	2333	45	116	0	5.0%	0.0%	2049	45	102	0	5.0%	0.0%
16.00	3163	169	119	0	3.8%	0.2%	2290	49	90	0	3.9%	0.0%	2114	41	74	0	3.5%	0.0%
17.00	3303	126	143	0	4.3%	0.3%	2188	36	114	0	5.2%	0.0%	1964	39	67	0	3.4%	0.0%
18.00	2284	83	128	0	5.6%	0.5%	1847	36	100	0	5.4%	0.0%	1763	43	69	0	3.9%	0.0%
19.00	1532	66	1	0	0.1%	0.0%	1445	29	1	0	0.0%	0.0%	1364	30	1	0	0.0%	0.0%
20.00	1117	41	2	0	0.2%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	2	0	0.2%	0.0%	822	25	0	0	0.1%	0.0%	703	22	0	0	0.1%	0.0%
22.00	615	23	0	0	0.1%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.1%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29912	2396	1287	5	4.3%	0.2%	25525	741	1059	2	4.2%	0.3%	22154	485	1036	0	4.7%	0.0%
24 hr	37856	3118	1292	5	3.4%	0.2%	32339	1116	1062	2	3.3%	0.2%	27695	709	1038	0	3.7%	0.0%

Link 1 - Swale Way East of B2005 Groveshurst Roundabout

2031 Baseline + K3 Operational + WKN Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	165	56	0	0	0.0%	0.0%	184	50	0	0	0.0%	0.0%	189	20	0	0	0.0%	0.0%
01.00	153	51	0	0	0.0%	0.0%	163	60	0	0	0.0%	0.0%	162	19	0	0	0.0%	0.0%
02.00	169	47	0	0	0.0%	0.0%	133	50	0	0	0.0%	0.0%	102	18	0	0	0.0%	0.0%
03.00	247	71	0	0	0.0%	0.0%	170	51	0	0	0.0%	0.0%	87	20	0	0	0.0%	0.0%
04.00	371	85	0	0	0.0%	0.0%	209	66	0	0	0.0%	0.0%	105	21	0	0	0.0%	0.0%
05.00	950	140	12	9	1.3%	6.6%	535	98	12	9	2.3%	9.5%	294	52	12	9	4.2%	18.0%
06.00	1125	194	35	17	3.1%	8.8%	527	139	35	17	6.7%	12.3%	256	80	35	17	13.8%	21.4%
07.00	1914	241	207	42	10.8%	17.5%	706	153	76	37	10.8%	24.4%	293	79	70	31	23.9%	39.1%
08.00	2229	231	230	53	10.3%	23.0%	741	134	58	36	7.8%	27.0%	315	75	51	30	16.2%	39.5%
09.00	1350	254	201	50	14.9%	19.6%	803	157	52	37	6.5%	23.7%	325	83	45	31	13.8%	37.1%
10.00	1232	275	196	56	15.9%	20.3%	911	158	54	39	5.9%	24.8%	344	91	48	32	14.0%	35.5%
11.00	1258	262	193	49	15.3%	18.6%	940	153	50	38	5.3%	25.0%	564	89	44	32	7.8%	35.6%
12.00	1377	247	204	43	14.9%	17.5%	962	130	46	32	4.8%	24.6%	864	73	40	25	4.6%	34.8%
13.00	1494	270	210	46	14.0%	16.9%	924	126	50	28	5.5%	22.1%	532	87	51	28	9.5%	32.0%
14.00	1475	262	191	42	13.0%	15.9%	904	123	43	25	4.7%	20.3%	545	81	42	25	7.7%	30.5%
15.00	1596	258	187	45	11.7%	17.4%	916	129	48	33	5.3%	25.9%	546	84	48	33	8.8%	39.8%
16.00	1725	215	204	39	11.8%	18.2%	823	114	57	29	7.0%	25.7%	665	71	57	29	8.6%	41.3%
17.00	1837	179	174	32	9.5%	17.9%	839	99	52	23	6.2%	23.1%	695	68	51	23	7.3%	33.6%
18.00	1214	141	87	28	7.2%	20.0%	695	77	35	20	5.0%	25.9%	456	46	34	20	7.4%	43.4%
19.00	734	102	47	27	6.4%	26.2%	555	73	47	27	8.4%	36.5%	521	56	47	27	9.0%	47.4%
20.00	549	98	28	24	5.1%	24.7%	406	74	28	24	6.9%	33.0%	369	49	28	24	7.6%	49.8%
21.00	394	73	26	23	6.7%	31.5%	322	54	26	23	8.2%	42.5%	231	38	26	23	11.5%	60.1%
22.00	309	54	17	17	5.5%	31.4%	285	30	17	17	6.0%	56.5%	314	15	17	17	5.4%	113.8%
23.00	203	51	0	0	0.0%	0.0%	209	34	0	0	0.0%	0.0%	202	15	0	0	0.0%	0.0%
12 hr	18700	2835	2284	524	12.2%	18.5%	10164	1552	621	378	6.1%	24.4%	6144	925	581	338	9.5%	36.6%
24 hr	24069	3857	2450	642	10.2%	16.6%	13862	2333	787	495	5.7%	21.2%	8974	1328	747	456	8.3%	34.3%

Link 2 - Barge Way North of Swale Roundabout

2031 Baseline + K3 Operational + WKN Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	133	40	0	0	0.0%	0.0%	138	36	0	0	0.0%	0.0%	105	31	0	0	0.0%	0.0%
01.00	136	37	0	0	0.0%	0.0%	112	31	0	0	0.0%	0.0%	92	30	0	0	0.0%	0.0%
02.00	174	38	0	0	0.0%	0.0%	135	40	0	0	0.0%	0.0%	93	27	0	0	0.0%	0.0%
03.00	228	56	0	0	0.0%	0.0%	171	48	0	0	0.0%	0.0%	86	30	0	0	0.0%	0.0%
04.00	313	68	0	0	0.0%	0.0%	216	62	0	0	0.0%	0.0%	109	33	0	0	0.0%	0.0%
05.00	550	104	0	0	0.0%	0.0%	351	90	0	0	0.0%	0.0%	199	60	0	0	0.0%	0.0%
06.00	539	143	11	0	2.0%	0.0%	318	128	11	0	3.5%	0.0%	177	82	11	0	6.2%	0.0%
07.00	544	172	48	24	8.9%	13.9%	330	138	48	24	14.7%	17.3%	178	95	42	17	23.4%	18.0%
08.00	551	170	24	24	4.3%	14.1%	314	141	24	24	7.6%	16.9%	190	84	17	17	9.0%	20.3%
09.00	459	188	22	22	4.8%	11.6%	301	147	22	22	7.3%	14.9%	172	95	15	15	8.7%	15.9%
10.00	470	194	22	22	4.6%	11.3%	312	136	22	22	7.0%	16.1%	176	99	15	15	8.5%	15.1%
11.00	427	193	22	22	5.1%	11.3%	283	142	22	22	7.7%	15.4%	201	112	15	15	7.5%	13.4%
12.00	441	177	22	22	5.0%	12.4%	262	104	22	22	8.3%	21.0%	236	83	15	15	6.4%	18.2%
13.00	540	202	18	18	3.4%	9.1%	326	113	12	12	3.5%	10.2%	236	103	12	12	4.9%	11.2%
14.00	535	211	18	18	3.4%	8.7%	296	125	12	12	3.9%	9.2%	208	101	12	12	5.5%	11.5%
15.00	532	209	24	24	4.5%	11.4%	311	134	17	17	5.5%	12.7%	200	104	17	17	8.5%	16.4%
16.00	549	174	35	24	6.4%	13.7%	263	94	28	17	10.7%	18.2%	238	100	28	17	11.8%	17.0%
17.00	534	138	29	18	5.5%	13.3%	230	87	23	12	9.8%	13.3%	211	78	23	12	10.7%	14.8%
18.00	381	107	21	18	5.5%	17.2%	192	58	14	12	7.3%	20.0%	148	52	14	12	9.5%	22.3%
19.00	253	90	26	15	10.3%	16.7%	139	74	26	15	18.7%	20.2%	135	59	26	15	19.3%	25.4%
20.00	188	69	15	15	8.0%	21.7%	111	62	15	15	13.6%	24.3%	104	55	15	15	14.4%	27.5%
21.00	154	52	17	17	11.1%	32.9%	98	45	17	17	17.4%	37.6%	83	39	17	17	20.6%	43.5%
22.00	118	37	17	17	14.5%	46.0%	76	28	17	17	22.4%	60.5%	82	20	17	17	20.8%	85.0%
23.00	148	46	0	0	0.0%	0.0%	82	29	0	0	0.0%	0.0%	79	25	0	0	0.0%	0.0%
12 hr	5964	2134	305	256	5.1%	12.0%	3420	1417	264	215	7.7%	15.2%	2394	1103	223	174	9.3%	15.8%
24 hr	8898	2914	392	320	4.4%	11.0%	5367	2091	351	279	6.5%	13.4%	3737	1595	310	238	8.3%	14.9%

Link 3 - Barge Way East of Fleet End Roundabout

2031 Baseline + K3 Operational + WKN Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	45	23	0	0	0.0%	0.0%	95	19	0	0	0.0%	0.0%	19	15	0	0	0.0%	0.0%
01.00	43	22	0	0	0.0%	0.0%	39	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
02.00	62	24	0	0	0.0%	0.0%	40	30	0	0	0.0%	0.0%	18	15	0	0	0.0%	0.0%
03.00	75	26	0	0	0.0%	0.0%	24	17	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%
04.00	116	32	0	0	0.0%	0.0%	43	25	0	0	0.0%	0.0%	25	15	0	0	0.0%	0.0%
05.00	231	41	0	0	0.0%	0.0%	102	22	0	0	0.0%	0.0%	60	16	0	0	0.0%	0.0%
06.00	284	59	11	0	3.9%	0.0%	119	44	11	0	9.3%	0.0%	64	18	11	0	17.3%	0.0%
07.00	330	90	48	24	14.7%	26.4%	154	60	48	24	31.4%	39.5%	86	31	42	17	48.3%	55.6%
08.00	329	98	24	24	7.2%	24.2%	162	64	24	24	14.7%	37.0%	109	28	17	17	15.6%	61.7%
09.00	249	101	22	22	8.8%	21.6%	143	64	22	22	15.3%	33.9%	76	28	15	15	19.9%	54.4%
10.00	238	103	22	22	9.2%	21.1%	131	59	22	22	16.6%	36.8%	76	28	15	15	19.7%	54.4%
11.00	213	100	22	22	10.3%	21.8%	117	45	22	22	18.8%	48.4%	70	30	15	15	21.6%	50.7%
12.00	247	101	22	22	8.9%	21.6%	109	40	22	22	20.1%	54.4%	77	29	15	15	19.5%	52.5%
13.00	286	103	18	18	6.4%	17.9%	133	32	12	12	8.7%	36.4%	113	28	12	12	10.1%	41.7%
14.00	263	113	18	18	7.0%	16.3%	110	31	12	12	10.5%	37.6%	93	28	12	12	12.4%	41.7%
15.00	236	110	24	24	10.1%	21.7%	97	35	17	17	17.5%	49.1%	79	29	17	17	21.5%	59.5%
16.00	268	89	35	24	13.0%	27.0%	104	32	28	17	26.9%	53.8%	98	31	28	17	28.6%	55.6%
17.00	308	68	29	18	9.5%	26.9%	115	29	23	12	19.5%	40.2%	124	28	23	12	18.1%	41.7%
18.00	159	42	21	18	13.1%	43.2%	67	17	14	12	21.0%	67.8%	64	16	14	12	22.0%	72.1%
19.00	93	33	26	15	27.9%	45.0%	52	15	26	15	50.4%	100.4%	55	15	26	15	47.6%	100.4%
20.00	82	32	15	15	18.2%	47.6%	34	17	15	15	43.7%	88.4%	33	15	15	15	45.0%	100.4%
21.00	77	24	17	17	22.2%	70.1%	36	15	17	17	46.8%	113.8%	35	17	17	17	48.1%	100.2%
22.00	50	26	17	17	34.1%	65.8%	21	15	17	17	80.2%	113.8%	28	16	17	17	60.1%	106.6%
23.00	45	22	0	0	0.0%	0.0%	16	15	0	0	0.0%	0.0%	22	16	0	0	0.0%	0.0%
12 hr	3126	1119	305	256	9.8%	22.9%	1443	508	264	215	18.3%	42.4%	1066	330	223	174	21.0%	52.9%
24 hr	4329	1484	392	320	9.0%	21.6%	2064	765	351	279	17.0%	36.5%	1458	517	310	238	21.2%	46.1%

Link 4 - A249 South of Swale Way Junction

2031 Baseline + K3 Operational + WKN Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	240	67	0	0	0.0%	0.0%	398	68	0	0	0.0%	0.0%	458	45	0	0	0.0%	0.0%
01.00	174	58	0	0	0.0%	0.0%	267	63	0	0	0.0%	0.0%	296	38	0	0	0.0%	0.0%
02.00	172	65	0	0	0.0%	0.0%	227	73	0	0	0.0%	0.0%	209	42	0	0	0.0%	0.0%
03.00	242	83	0	0	0.0%	0.0%	228	73	0	0	0.0%	0.0%	176	44	0	0	0.0%	0.0%
04.00	553	144	0	0	0.0%	0.0%	310	81	0	0	0.0%	0.0%	201	45	0	0	0.0%	0.0%
05.00	1343	244	12	9	0.9%	3.8%	700	145	12	9	1.7%	6.4%	414	80	12	9	3.0%	11.6%
06.00	2221	308	35	17	1.6%	5.5%	1050	186	35	17	3.3%	9.2%	634	114	35	17	5.5%	14.9%
07.00	3153	363	509	42	16.2%	11.5%	1443	217	101	37	7.0%	17.1%	822	124	149	31	18.1%	24.9%
08.00	2910	368	734	53	25.2%	14.4%	1839	229	164	36	8.9%	15.8%	1136	124	190	30	16.7%	23.9%
09.00	2217	381	498	50	22.5%	13.0%	2072	247	328	37	15.8%	15.0%	1645	165	245	31	14.9%	18.7%
10.00	2126	403	444	56	20.9%	13.8%	2367	236	357	39	15.1%	16.5%	2107	181	528	32	25.0%	17.9%
11.00	2160	393	441	49	20.4%	12.3%	2511	231	413	38	16.5%	16.5%	2330	180	584	32	25.1%	17.6%
12.00	2321	387	497	43	21.4%	11.1%	2703	207	499	32	18.5%	15.3%	2190	152	560	25	25.6%	16.6%
13.00	2358	404	522	45	22.2%	11.2%	2640	206	477	28	18.1%	13.5%	2154	161	531	28	24.6%	17.2%
14.00	2600	405	542	41	20.9%	10.2%	2422	192	509	25	21.0%	13.0%	2173	162	351	25	16.2%	15.3%
15.00	2884	400	602	45	20.9%	11.2%	2372	195	483	33	20.4%	17.1%	2142	174	427	33	20.0%	19.1%
16.00	3409	336	611	39	17.9%	11.6%	2313	169	390	29	16.8%	17.3%	2252	167	336	29	14.9%	17.4%
17.00	3694	296	698	32	18.9%	10.8%	2360	159	478	23	20.2%	14.3%	1973	154	300	23	15.2%	14.8%
18.00	2774	255	556	28	20.0%	11.0%	2038	134	411	20	20.2%	14.8%	1863	129	294	20	15.8%	15.4%
19.00	1851	189	46	27	2.5%	14.1%	1601	123	46	27	2.9%	21.7%	1548	115	46	27	3.0%	23.1%
20.00	1277	142	30	24	2.3%	17.1%	1164	91	28	24	2.4%	26.6%	1279	100	28	24	2.2%	24.4%
21.00	956	109	28	23	2.9%	21.2%	973	71	26	23	2.7%	32.4%	935	83	26	23	2.8%	27.6%
22.00	735	74	17	17	2.3%	23.1%	861	49	17	17	2.0%	34.8%	554	45	17	17	3.1%	38.0%
23.00	440	63	0	0	0.0%	0.0%	664	50	0	0	0.0%	0.0%	336	47	0	0	0.0%	0.0%
12 hr	32605	4392	6655	522	20.4%	11.9%	27081	2422	4608	377	17.0%	15.6%	22787	1873	4494	338	19.7%	18.1%
24 hr	42808	5937	6824	639	15.9%	10.8%	35525	3494	4773	494	13.4%	14.2%	29826	2671	4658	456	15.6%	17.1%

Link 5 - A249 between the A2 and M2

2031 Baseline + K3 Operational + WKN Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	338	91	0	0	0.0%	0.0%	564	93	0	0	0.0%	0.0%	649	60	0	0	0.0%	0.0%
01.00	243	79	0	0	0.0%	0.0%	377	85	0	0	0.0%	0.0%	419	50	0	0	0.0%	0.0%
02.00	241	87	0	0	0.0%	0.0%	320	99	0	0	0.0%	0.0%	295	55	0	0	0.0%	0.0%
03.00	339	113	0	0	0.0%	0.0%	322	100	0	0	0.0%	0.0%	247	58	0	0	0.0%	0.0%
04.00	782	199	0	0	0.0%	0.0%	438	111	0	0	0.0%	0.0%	282	59	0	0	0.0%	0.0%
05.00	1878	328	12	9	0.6%	2.8%	976	190	12	9	1.2%	4.9%	567	97	12	9	2.1%	9.6%
06.00	3114	406	34	17	1.1%	4.2%	1459	237	34	17	2.3%	7.2%	863	134	34	17	3.9%	12.7%
07.00	4398	463	712	42	16.2%	9.1%	1997	268	117	38	5.8%	14.0%	1130	146	195	31	17.2%	21.0%
08.00	3983	469	1120	53	28.1%	11.4%	2559	286	230	36	9.0%	12.7%	1572	148	277	30	17.6%	20.0%
09.00	3071	485	687	50	22.4%	10.3%	2923	308	500	38	17.1%	12.2%	2319	202	368	31	15.9%	15.2%
10.00	2936	512	600	56	20.4%	11.0%	3343	290	543	39	16.3%	13.6%	3005	223	824	32	27.4%	14.5%
11.00	2990	501	600	49	20.1%	9.8%	3561	283	637	39	17.9%	13.6%	3336	222	916	32	27.5%	14.2%
12.00	3219	500	679	43	21.1%	8.7%	3852	258	775	32	20.1%	12.4%	3142	192	873	25	27.8%	13.2%
13.00	3262	517	721	46	22.1%	8.8%	3740	251	734	28	19.6%	11.1%	3064	196	819	28	26.7%	14.1%
14.00	3602	523	778	42	21.6%	8.0%	3444	235	791	25	23.0%	10.6%	3082	202	539	25	17.5%	12.3%
15.00	4030	511	892	45	22.1%	8.8%	3367	235	744	33	22.1%	14.1%	3045	215	654	33	21.5%	15.5%
16.00	4772	426	874	39	18.3%	9.2%	3278	204	586	29	17.9%	14.4%	3195	211	505	29	15.8%	13.9%
17.00	5149	371	1000	32	19.4%	8.7%	3351	191	735	23	21.9%	11.9%	2791	193	449	23	16.1%	11.8%
18.00	3911	323	846	28	21.6%	8.8%	2909	164	638	20	21.9%	12.1%	2658	166	452	20	17.0%	12.0%
19.00	2596	244	47	27	1.8%	10.9%	2253	153	45	27	2.0%	17.4%	2177	143	45	27	2.1%	18.7%
20.00	1790	180	36	24	2.0%	13.5%	1639	112	28	24	1.7%	21.7%	1803	123	28	24	1.5%	19.8%
21.00	1337	138	34	23	2.5%	16.7%	1370	87	26	23	1.9%	26.3%	1315	105	26	23	2.0%	22.0%
22.00	1030	100	17	17	1.7%	17.0%	1225	65	17	17	1.4%	26.0%	786	60	17	17	2.2%	28.6%
23.00	621	86	0	0	0.0%	0.0%	945	66	0	0	0.0%	0.0%	475	62	0	0	0.0%	0.0%
12 hr	45324	5600	9510	526	21.0%	9.4%	38324	2974	7029	379	18.3%	12.8%	32339	2316	6870	338	21.2%	14.6%
24 hr	59632	7651	9689	644	16.2%	8.4%	50213	4373	7191	497	14.3%	11.4%	42217	3321	7032	456	16.7%	13.7%

Link 6 - M2 West

2031 Baseline + K3 Operational + WKN Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	428	111	0	0	0.0%	0.0%	711	123	0	0	0.0%	0.0%	869	69	0	0	0.0%	0.0%
01.00	326	103	0	0	0.0%	0.0%	472	106	0	0	0.0%	0.0%	533	66	0	0	0.0%	0.0%
02.00	341	117	0	0	0.0%	0.0%	398	99	0	0	0.0%	0.0%	355	51	0	0	0.0%	0.0%
03.00	467	160	0	0	0.0%	0.0%	419	120	0	0	0.0%	0.0%	315	71	0	0	0.0%	0.0%
04.00	1075	267	0	0	0.0%	0.0%	566	151	0	0	0.0%	0.0%	338	62	0	0	0.0%	0.0%
05.00	2830	449	7	6	0.2%	1.3%	1199	213	7	6	0.5%	2.7%	687	98	7	6	1.0%	5.8%
06.00	4268	527	16	11	0.4%	2.0%	1804	269	16	11	0.9%	3.9%	1031	126	16	11	1.5%	8.3%
07.00	5707	549	217	23	3.8%	4.2%	2526	312	43	20	1.7%	6.5%	1411	140	67	19	4.7%	13.5%
08.00	5278	602	334	30	6.3%	5.0%	3240	318	76	19	2.3%	6.1%	1885	144	90	18	4.8%	12.7%
09.00	4374	627	213	28	4.9%	4.4%	3631	316	153	20	4.2%	6.4%	2784	192	116	19	4.2%	9.9%
10.00	4035	614	190	32	4.7%	5.1%	4151	308	167	21	4.0%	6.9%	3764	221	248	20	6.6%	9.1%
11.00	4028	598	187	27	4.6%	4.5%	4601	289	193	21	4.2%	7.2%	4302	249	275	20	6.4%	7.9%
12.00	4378	638	209	24	4.8%	3.7%	4825	266	231	17	4.8%	6.3%	4635	223	261	16	5.6%	7.0%
13.00	4543	660	221	25	4.9%	3.8%	4745	263	221	17	4.7%	6.5%	4402	234	246	17	5.6%	7.3%
14.00	4834	659	235	23	4.9%	3.4%	4370	257	237	15	5.4%	6.0%	4011	232	164	15	4.1%	6.6%
15.00	5340	641	268	25	5.0%	3.9%	4196	240	226	21	5.4%	8.5%	3831	222	200	21	5.2%	9.3%
16.00	6281	519	263	21	4.2%	4.1%	4375	224	179	18	4.1%	8.0%	4240	211	156	18	3.7%	8.5%
17.00	6679	425	299	17	4.5%	4.0%	4156	192	220	14	5.3%	7.3%	3860	198	138	14	3.6%	7.1%
18.00	4988	351	251	14	5.0%	4.1%	3665	172	191	12	5.2%	7.1%	3400	157	137	12	4.0%	7.8%
19.00	3247	272	22	16	0.7%	6.0%	2806	140	22	16	0.8%	11.7%	2808	141	22	16	0.8%	11.7%
20.00	2271	187	16	15	0.7%	8.0%	2029	102	16	15	0.8%	14.8%	2121	103	16	15	0.8%	14.6%
21.00	1668	132	15	14	0.9%	10.8%	1577	83	15	14	1.0%	17.2%	1505	88	15	14	1.0%	16.2%
22.00	1339	112	11	11	0.8%	9.4%	1568	63	11	11	0.7%	16.6%	970	62	11	11	1.1%	17.0%
23.00	800	108	0	0	0.0%	0.0%	1213	69	0	0	0.0%	0.0%	556	79	0	0	0.0%	0.0%
12 hr	60465	6882	2885	288	4.8%	4.2%	48483	3159	2138	216	4.4%	6.8%	42524	2424	2097	209	4.9%	8.6%
24 hr	79526	9426	2971	360	3.7%	3.8%	63245	4696	2224	288	3.5%	6.1%	54612	3438	2183	281	4.0%	8.2%

Link 7 - M2 East

2031 Baseline + K3 Operational + WKN Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	390	99	0	0	0.0%	0.0%	650	110	0	0	0.0%	0.0%	795	61	0	0	0.0%	0.0%
01.00	297	92	0	0	0.0%	0.0%	430	94	0	0	0.0%	0.0%	487	58	0	0	0.0%	0.0%
02.00	311	105	0	0	0.0%	0.0%	363	88	0	0	0.0%	0.0%	323	44	0	0	0.0%	0.0%
03.00	426	144	0	0	0.0%	0.0%	382	108	0	0	0.0%	0.0%	287	63	0	0	0.0%	0.0%
04.00	984	242	0	0	0.0%	0.0%	517	136	0	0	0.0%	0.0%	308	54	0	0	0.0%	0.0%
05.00	2575	395	1	1	0.0%	0.2%	1082	178	1	1	0.1%	0.4%	611	72	1	1	0.2%	0.9%
06.00	3882	453	4	1	0.1%	0.3%	1623	217	4	1	0.2%	0.5%	913	86	4	1	0.4%	1.3%
07.00	5181	471	51	3	1.0%	0.7%	2281	255	10	3	0.5%	1.1%	1256	98	14	2	1.1%	2.1%
08.00	4760	521	72	4	1.5%	0.8%	2932	262	14	3	0.5%	1.1%	1687	103	16	2	1.0%	1.9%
09.00	3956	539	49	4	1.2%	0.7%	3286	256	27	3	0.8%	1.1%	2510	142	20	2	0.8%	1.4%
10.00	3642	525	44	4	1.2%	0.8%	3759	246	30	3	0.8%	1.2%	3398	165	43	2	1.3%	1.3%
11.00	3638	512	44	4	1.2%	0.7%	4173	229	34	3	0.8%	1.3%	3893	192	47	2	1.2%	1.1%
12.00	3964	558	50	3	1.3%	0.6%	4385	219	41	3	0.9%	1.2%	4208	179	45	2	1.1%	0.9%
13.00	4105	569	52	3	1.3%	0.6%	4299	207	39	2	0.9%	0.9%	3983	180	44	2	1.1%	1.0%
14.00	4376	573	53	3	1.2%	0.6%	3960	206	42	2	1.1%	0.8%	3635	182	29	2	0.8%	0.9%
15.00	4836	552	58	3	1.2%	0.6%	3797	185	39	2	1.0%	1.2%	3464	169	35	2	1.0%	1.3%
16.00	5703	446	59	3	1.0%	0.7%	3971	177	32	2	0.8%	1.1%	3849	165	28	2	0.7%	1.2%
17.00	6058	361	64	3	1.1%	0.7%	3768	150	40	2	1.1%	1.0%	3501	155	25	2	0.7%	1.0%
18.00	4542	305	48	2	1.1%	0.8%	3333	142	34	1	1.0%	0.9%	3093	128	24	1	0.8%	1.0%
19.00	2953	228	5	2	0.2%	0.8%	2552	107	5	2	0.2%	1.7%	2553	108	5	2	0.2%	1.7%
20.00	2064	154	2	2	0.1%	1.1%	1844	76	2	2	0.1%	2.2%	1928	76	2	2	0.1%	2.1%
21.00	1516	108	2	2	0.1%	1.4%	1433	63	2	2	0.1%	2.4%	1367	68	2	2	0.1%	2.3%
22.00	1223	100	1	1	0.1%	1.1%	1436	55	1	1	0.1%	2.1%	887	54	1	1	0.1%	2.1%
23.00	731	96	0	0	0.0%	0.0%	1111	60	0	0	0.0%	0.0%	508	70	0	0	0.0%	0.0%
12 hr	54761	5931	646	40	1.2%	0.7%	43944	2534	382	28	0.9%	1.1%	38476	1859	371	23	1.0%	1.2%
24 hr	72110	8146	661	48	0.9%	0.6%	57367	3827	397	36	0.7%	0.9%	49443	2672	386	31	0.8%	1.1%



Link 8 - Swale Way north of Reams Way Junction

2031 Baseline + K3 Operational + WKN Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	11	0	0	0.0%	0.0%	72	16	0	0	0.0%	0.0%	59	1	0	0	0.0%	0.0%
01.00	49	12	0	0	0.0%	0.0%	45	9	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	57	18	0	0	0.0%	0.0%	46	9	0	0	0.0%	0.0%	30	4	0	0	0.0%	0.0%
03.00	78	13	0	0	0.0%	0.0%	53	10	0	0	0.0%	0.0%	31	2	0	0	0.0%	0.0%
04.00	161	28	0	0	0.0%	0.0%	69	12	0	0	0.0%	0.0%	51	5	0	0	0.0%	0.0%
05.00	517	45	0	0	0.0%	0.0%	234	13	0	0	0.0%	0.0%	128	7	0	0	0.0%	0.0%
06.00	644	51	0	0	0.0%	0.0%	240	19	0	0	0.0%	0.0%	129	12	0	0	0.1%	0.0%
07.00	1414	85	2	0	0.2%	0.0%	349	22	0	0	0.1%	0.0%	154	12	1	0	0.4%	0.0%
08.00	1499	83	3	0	0.2%	0.0%	450	30	1	0	0.1%	0.0%	153	14	1	0	0.5%	0.0%
09.00	950	99	2	0	0.2%	0.0%	571	31	1	0	0.3%	0.0%	322	13	1	0	0.3%	0.0%
10.00	839	106	3	1	0.4%	0.9%	704	34	3	1	0.4%	2.9%	437	18	3	0	0.6%	0.0%
11.00	830	100	3	1	0.4%	1.0%	770	23	3	1	0.4%	4.3%	529	24	3	0	0.5%	0.0%
12.00	932	102	2	0	0.3%	0.0%	732	25	2	0	0.3%	0.0%	556	19	3	0	0.5%	0.0%
13.00	900	93	2	0	0.3%	0.0%	692	33	2	0	0.3%	0.0%	655	17	3	0	0.4%	0.0%
14.00	1077	97	3	0	0.2%	0.0%	614	23	2	0	0.4%	0.0%	467	13	2	0	0.4%	0.0%
15.00	1188	86	3	0	0.2%	0.0%	595	29	2	0	0.4%	0.0%	490	16	2	0	0.4%	0.0%
16.00	1421	76	3	0	0.2%	0.0%	553	20	2	0	0.3%	0.0%	539	17	2	0	0.3%	0.0%
17.00	1299	61	3	0	0.3%	0.0%	611	19	2	0	0.4%	0.0%	531	9	1	0	0.3%	0.0%
18.00	827	63	3	0	0.3%	0.0%	490	15	2	0	0.4%	0.0%	410	9	1	0	0.3%	0.0%
19.00	483	37	0	0	0.0%	0.0%	297	10	0	0	0.0%	0.0%	340	10	0	0	0.0%	0.0%
20.00	326	35	0	0	0.0%	0.0%	235	11	0	0	0.0%	0.0%	242	15	0	0	0.0%	0.0%
21.00	259	26	0	0	0.0%	0.0%	263	8	0	0	0.0%	0.0%	218	14	0	0	0.0%	0.0%
22.00	213	20	0	0	0.0%	0.0%	155	6	0	0	0.0%	0.0%	92	15	0	0	0.0%	0.0%
23.00	101	13	0	0	0.0%	0.0%	92	4	0	0	0.0%	0.0%	52	10	0	0	0.0%	0.0%
12 hr	13175	1052	33	2	0.3%	0.2%	7131	304	24	2	0.3%	0.7%	5243	184	21	0	0.4%	0.0%
24 hr	16116	1362	33	2	0.2%	0.1%	8933	431	24	2	0.3%	0.5%	6617	280	22	0	0.3%	0.0%

Link 9 - Swale Way south of Reams Way Junction

2031 Baseline + K3 Operational + WKN Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	55	10	0	0	0.0%	0.0%	86	12	0	0	0.0%	0.0%	64	1	0	0	0.0%	0.0%
01.00	44	10	0	0	0.0%	0.0%	44	8	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%
02.00	59	18	0	0	0.0%	0.0%	74	9	0	0	0.0%	0.0%	40	2	0	0	0.0%	0.0%
03.00	76	17	0	0	0.0%	0.0%	64	11	0	0	0.0%	0.0%	33	2	0	0	0.0%	0.0%
04.00	155	27	0	0	0.0%	0.0%	80	7	0	0	0.0%	0.0%	32	6	0	0	0.0%	0.0%
05.00	502	42	0	0	0.0%	0.0%	219	12	0	0	0.0%	0.0%	116	5	0	0	0.0%	0.0%
06.00	656	57	0	0	0.0%	0.0%	273	20	0	0	0.0%	0.0%	133	13	0	0	0.1%	0.0%
07.00	1416	85	2	0	0.2%	0.0%	347	27	0	0	0.1%	0.0%	188	12	1	0	0.3%	0.0%
08.00	1432	94	3	0	0.2%	0.0%	484	26	1	0	0.1%	0.0%	155	7	1	0	0.5%	0.0%
09.00	917	105	2	0	0.3%	0.0%	575	35	1	0	0.3%	0.0%	324	15	1	0	0.3%	0.0%
10.00	828	107	3	1	0.4%	0.9%	716	25	3	1	0.4%	4.0%	474	15	3	0	0.5%	0.0%
11.00	850	108	3	1	0.4%	0.9%	775	35	3	1	0.4%	2.8%	506	17	3	0	0.6%	0.0%
12.00	917	98	2	0	0.3%	0.0%	749	34	2	0	0.3%	0.0%	522	15	3	0	0.5%	0.0%
13.00	950	92	2	0	0.3%	0.0%	622	32	2	0	0.4%	0.0%	497	21	3	0	0.5%	0.0%
14.00	1079	102	3	0	0.2%	0.0%	546	24	2	0	0.5%	0.0%	450	20	2	0	0.4%	0.0%
15.00	1159	93	3	0	0.2%	0.0%	523	21	2	0	0.4%	0.0%	415	18	2	0	0.5%	0.0%
16.00	1433	82	3	0	0.2%	0.0%	547	19	2	0	0.3%	0.0%	440	14	2	0	0.4%	0.0%
17.00	1370	64	3	0	0.2%	0.0%	596	21	2	0	0.4%	0.0%	487	21	1	0	0.3%	0.0%
18.00	858	63	3	0	0.3%	0.0%	496	17	2	0	0.4%	0.0%	402	16	1	0	0.3%	0.0%
19.00	477	34	0	0	0.0%	0.0%	299	10	0	0	0.0%	0.0%	301	16	0	0	0.0%	0.0%
20.00	346	37	0	0	0.0%	0.0%	214	8	0	0	0.0%	0.0%	239	13	0	0	0.0%	0.0%
21.00	253	26	0	0	0.0%	0.0%	260	5	0	0	0.0%	0.0%	181	9	0	0	0.0%	0.0%
22.00	209	22	0	0	0.0%	0.0%	139	0	0	0	0.0%	0.0%	87	9	0	0	0.0%	0.0%
23.00	93	10	0	0	0.0%	0.0%	120	7	0	0	0.0%	0.0%	51	6	0	0	0.0%	0.0%
12 hr	13210	1093	33	2	0.3%	0.2%	6976	316	24	2	0.3%	0.6%	4860	194	21	0	0.4%	0.0%
24 hr	16134	1403	33	2	0.2%	0.1%	8849	425	24	2	0.3%	0.5%	6172	278	22	0	0.3%	0.0%

Link 10 - Swale Way south of Ridham Avenue Roundabout

2031 Baseline + K3 Operational + WKN Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	40	6	0	0	0.0%	0.0%	58	8	0	0	0.0%	0.0%	53	0	0	0	0.0%	0.0%
01.00	33	5	0	0	0.0%	0.0%	35	1	0	0	0.0%	0.0%	0	0	0	0	0.0%	0.0%
02.00	37	10	0	0	0.0%	0.0%	33	1	0	0	0.0%	0.0%	29	2	0	0	0.0%	0.0%
03.00	56	9	0	0	0.0%	0.0%	45	5	0	0	0.0%	0.0%	31	0	0	0	0.0%	0.0%
04.00	124	23	0	0	0.0%	0.0%	51	9	0	0	0.0%	0.0%	35	0	0	0	0.0%	0.0%
05.00	393	41	0	0	0.0%	0.0%	146	12	0	0	0.0%	0.0%	74	6	0	0	0.0%	0.0%
06.00	565	37	0	0	0.0%	0.0%	197	12	0	0	0.0%	0.0%	99	5	0	0	0.1%	0.0%
07.00	1313	67	2	0	0.2%	0.0%	319	16	0	0	0.1%	0.0%	138	5	1	0	0.4%	0.0%
08.00	1401	71	3	0	0.2%	0.0%	421	17	1	0	0.2%	0.0%	139	4	1	0	0.6%	0.0%
09.00	869	83	2	0	0.3%	0.0%	542	18	1	0	0.3%	0.0%	312	4	1	0	0.4%	0.0%
10.00	741	88	3	1	0.4%	1.1%	681	16	3	1	0.4%	6.1%	404	8	3	0	0.6%	0.0%
11.00	740	75	3	1	0.4%	1.3%	764	11	3	1	0.4%	8.8%	518	9	3	0	0.5%	0.0%
12.00	823	81	2	0	0.3%	0.0%	717	15	2	0	0.3%	0.0%	540	11	3	0	0.5%	0.0%
13.00	833	74	2	0	0.3%	0.0%	658	16	2	0	0.3%	0.0%	639	9	3	0	0.4%	0.0%
14.00	971	77	3	0	0.3%	0.0%	607	13	2	0	0.4%	0.0%	466	5	2	0	0.4%	0.0%
15.00	1101	78	3	0	0.3%	0.0%	556	13	2	0	0.4%	0.0%	467	8	2	0	0.4%	0.0%
16.00	1353	65	3	0	0.2%	0.0%	532	13	2	0	0.3%	0.0%	521	11	2	0	0.3%	0.0%
17.00	1242	56	3	0	0.3%	0.0%	545	12	2	0	0.4%	0.0%	490	7	1	0	0.3%	0.0%
18.00	767	50	3	0	0.3%	0.0%	464	8	2	0	0.4%	0.0%	389	3	1	0	0.4%	0.0%
19.00	431	20	0	0	0.0%	0.0%	291	4	0	0	0.0%	0.0%	325	3	0	0	0.0%	0.0%
20.00	288	17	0	0	0.0%	0.0%	223	12	0	0	0.0%	0.0%	225	5	0	0	0.0%	0.0%
21.00	223	11	0	0	0.0%	0.0%	256	3	0	0	0.0%	0.0%	206	7	0	0	0.0%	0.0%
22.00	160	10	0	0	0.0%	0.0%	147	6	0	0	0.0%	0.0%	72	5	0	0	0.0%	0.0%
23.00	87	4	0	0	0.0%	0.0%	90	2	0	0	0.0%	0.0%	45	3	0	0	0.0%	0.0%
12 hr	12154	863	33	2	0.3%	0.2%	6806	170	24	2	0.3%	1.2%	5023	84	21	0	0.4%	0.0%
24 hr	14591	1055	33	2	0.2%	0.2%	8379	245	24	2	0.3%	0.8%	6218	120	22	0	0.3%	0.0%

Link 11 - A249 North of Swale Way Junction

2031 Baseline + K3 Operational + WKN Operational + 2031 Cumulative (K3 (49.9 - 75MW) and WKN) Percentage Impact

Time Begin	Weekday						Saturday						Sunday					
	2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact		2031 Baseline		Development + Development + Cumulative		% Impact	
	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
00.00	154	17	0	0	0.0%	0.0%	310	18	0	0	0.0%	0.0%	364	13	0	0	0.0%	0.0%
01.00	99	18	0	0	0.0%	0.0%	194	19	0	0	0.0%	0.0%	231	10	0	0	0.0%	0.0%
02.00	89	24	0	0	0.0%	0.0%	123	21	0	0	0.0%	0.0%	142	14	0	0	0.0%	0.0%
03.00	129	37	0	0	0.0%	0.0%	137	28	0	0	0.0%	0.0%	122	13	0	0	0.0%	0.0%
04.00	304	79	0	0	0.0%	0.0%	200	29	0	0	0.0%	0.0%	142	15	0	0	0.0%	0.0%
05.00	1035	177	0	0	0.0%	0.0%	540	55	0	0	0.0%	0.0%	331	27	0	0	0.0%	0.0%
06.00	1712	190	1	0	0.0%	0.0%	770	77	1	0	0.1%	0.0%	436	30	1	0	0.1%	0.0%
07.00	3012	191	91	0	3.0%	0.1%	1139	82	8	0	0.7%	0.2%	581	26	22	0	3.9%	0.0%
08.00	2710	235	162	0	6.0%	0.1%	1543	83	28	0	1.8%	0.2%	872	31	36	0	4.1%	0.0%
09.00	2053	238	87	0	4.2%	0.1%	1887	76	72	0	3.8%	0.2%	1368	48	52	0	3.8%	0.0%
10.00	1965	234	73	0	3.7%	0.1%	2223	85	79	0	3.6%	0.2%	2020	41	125	0	6.2%	0.0%
11.00	2067	230	74	0	3.6%	0.1%	2492	71	95	0	3.8%	0.3%	2331	38	140	0	6.0%	0.0%
12.00	2199	227	85	0	3.9%	0.1%	2640	63	119	0	4.5%	0.3%	2543	44	138	0	5.4%	0.0%
13.00	2235	222	92	0	4.1%	0.1%	2540	61	113	0	4.5%	0.0%	2417	47	128	0	5.3%	0.0%
14.00	2350	239	105	0	4.5%	0.1%	2406	57	123	0	5.1%	0.0%	2134	42	82	0	3.8%	0.0%
15.00	2574	205	126	0	4.9%	0.1%	2333	45	116	0	5.0%	0.0%	2049	45	102	0	5.0%	0.0%
16.00	3164	170	119	0	3.8%	0.1%	2290	49	90	0	3.9%	0.0%	2114	41	74	0	3.5%	0.0%
17.00	3303	126	142	0	4.3%	0.2%	2189	36	113	0	5.2%	0.0%	1964	39	67	0	3.4%	0.0%
18.00	2284	83	128	0	5.6%	0.2%	1847	36	100	0	5.4%	0.0%	1763	43	69	0	3.9%	0.0%
19.00	1532	66	1	0	0.1%	0.0%	1445	29	1	0	0.0%	0.0%	1364	30	1	0	0.0%	0.0%
20.00	1117	41	2	0	0.2%	0.0%	1039	27	0	0	0.0%	0.0%	1006	26	0	0	0.0%	0.0%
21.00	827	28	2	0	0.2%	0.0%	822	25	0	0	0.0%	0.0%	704	22	0	0	0.0%	0.0%
22.00	615	23	0	0	0.0%	0.0%	696	28	0	0	0.0%	0.0%	448	11	0	0	0.0%	0.0%
23.00	331	23	0	0	0.0%	0.0%	538	20	0	0	0.0%	0.0%	250	11	0	0	0.0%	0.0%
12 hr	29916	2398	1283	2	4.3%	0.1%	25528	742	1057	1	4.1%	0.2%	22156	485	1035	0	4.7%	0.0%
24 hr	37860	3121	1288	2	3.4%	0.1%	32342	1117	1058	1	3.3%	0.1%	27697	709	1036	0	3.7%	0.0%

# APPENDIX AK: JUNCTIONS 9 ASSESSMENTS

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Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.0.2.5947 © Copyright TRL Limited, 2017
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**Filename:** Barge Way\_Site Access\_Full K3.j9  
**Path:** P:\JNY9290 - Kemsley K5\Transport\Arcady\WKN DCO\Barge Way\_Site Access  
**Report generation date:** 08/07/2019 11:23:08

- »2017, AM
- »2017, PM
- »2024, AM
- »2024, PM
- »2024 + Cumulative Development, AM
- »2024 + Cumulative Development, PM
- »2024 + K3 Operational, AM
- »2024 + K3 Operational, PM
- »2024 + K3 and WKN Operational, AM
- »2024 + K3 and WKN Operational, PM
- »2024 + K3 Operational + Cumulative Development, AM
- »2024 + K3 Operational + Cumulative Development, PM
- »2024 + K3 and WKN Operational + Cumulative Development, AM
- »2024 + K3 and WKN Operational + Cumulative Development, PM
- »2031, AM
- »2031, PM
- »2031 + Cumulative , AM
- »2031 + Cumulative, PM
- »2031 + K3 Operational, AM
- »2031 + K3 Operational, PM
- »2031 + K3 and WKN Operational, AM
- »2031 + K3 and WKN Operational, PM
- »2031 + K3 Operational + Cumulative Development, AM
- »2031 + K3 Operational + Cumulative Development, PM
- »2031 + K3 and WKN Operational + Cumulative Development, AM
- »2031 + K3 and WKN Operational + Cumulative Development, PM

**Summary of junction performance**

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
<b>2017</b>						
1 - Access (S)	0.0	4.82	0.04	0.1	3.61	0.05
2 - Barge Way	0.2	3.74	0.13	0.1	3.40	0.10
3 - Access Road (N)	0.0	0.00	0.00	0.0	0.00	0.00
4 - Private Road	0.1	4.82	0.09	0.1	3.10	0.09
<b>2024</b>						
1 - Access (S)	0.0	4.92	0.04	0.1	3.68	0.05
2 - Barge Way	0.2	3.71	0.18	0.1	3.39	0.13

3 - Access Road (N)	0.0	2.77	0.02	0.0	2.71	0.03
4 - Private Road	0.1	4.60	0.11	0.1	3.28	0.10
<b>2024 + Cumulative Development</b>						
1 - Access (S)	0.0	4.92	0.04	0.1	3.68	0.05
2 - Barge Way	0.2	3.71	0.18	0.1	3.39	0.13
3 - Access Road (N)	0.0	2.77	0.02	0.0	2.71	0.03
4 - Private Road	0.1	4.60	0.11	0.1	3.28	0.10
<b>2024 + K3 Operational</b>						
1 - Access (S)	0.1	5.07	0.07	0.1	3.90	0.08
2 - Barge Way	0.3	3.95	0.21	0.2	3.66	0.15
3 - Access Road (N)	0.0	2.83	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.70	0.12	0.1	3.33	0.10
<b>2024 + K3 and WKN Operational</b>						
1 - Access (S)	0.1	5.15	0.08	0.1	3.97	0.10
2 - Barge Way	0.3	4.09	0.22	0.2	3.74	0.16
3 - Access Road (N)	0.0	2.86	0.02	0.0	2.76	0.03
4 - Private Road	0.1	4.74	0.12	0.1	3.35	0.10
<b>2024 + K3 Operational + Cumulative Development</b>						
1 - Access (S)	0.1	5.07	0.07	0.1	3.90	0.08
2 - Barge Way	0.3	3.95	0.21	0.2	3.66	0.15
3 - Access Road (N)	0.0	2.83	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.70	0.12	0.1	3.33	0.10
<b>2024 + K3 and WKN Operational + Cumulative Development</b>						
1 - Access (S)	0.1	5.15	0.08	0.1	3.97	0.10
2 - Barge Way	0.3	4.09	0.22	0.2	3.74	0.16
3 - Access Road (N)	0.0	2.86	0.02	0.0	2.76	0.03
4 - Private Road	0.1	4.74	0.12	0.1	3.35	0.10
<b>2031</b>						
1 - Access (S)	0.0	4.92	0.04	0.1	3.68	0.05
2 - Barge Way	0.2	3.71	0.18	0.1	3.39	0.13
3 - Access Road (N)	0.0	2.77	0.02	0.0	2.71	0.03
4 - Private Road	0.1	4.60	0.11	0.1	3.28	0.10
<b>2031 + Cumulative</b>						
1 - Access (S)	0.0	4.92	0.04	0.1	3.68	0.05
2 - Barge Way	0.2	3.71	0.18	0.2	3.59	0.15
3 - Access Road (N)	0.0	2.77	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.60	0.11	0.1	3.32	0.10
<b>2031 + K3 Operational</b>						
1 - Access (S)	0.1	5.07	0.07	0.1	3.90	0.08
2 - Barge Way	0.3	3.95	0.21	0.2	3.66	0.15
3 - Access Road (N)	0.0	2.83	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.70	0.12	0.1	3.33	0.10
<b>2031 + K3 and WKN Operational</b>						
1 - Access (S)	0.1	5.15	0.08	0.1	3.97	0.10
2 - Barge Way	0.3	4.09	0.22	0.2	3.74	0.16
3 - Access Road (N)	0.0	2.86	0.02	0.0	2.76	0.03
4 - Private Road	0.1	4.74	0.12	0.1	3.35	0.10
<b>2031 + K3 Operational + Cumulative Development</b>						
1 - Access (S)	0.1	5.07	0.07	0.1	3.90	0.08
2 - Barge Way	0.3	3.95	0.21	0.2	3.66	0.15
3 - Access Road (N)	0.0	2.83	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.70	0.12	0.1	3.33	0.10
<b>2031 + K3 and WKN Operational + Cumulative Development</b>						
1 - Access (S)	0.1	5.15	0.08	0.1	3.97	0.10
2 - Barge Way	0.3	4.09	0.22	0.2	3.74	0.16
3 - Access Road (N)	0.0	2.86	0.02	0.0	2.76	0.03

4 - Private Road	0.1	4.74	0.12	0.1	3.35	0.10
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Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

## File summary

### File Description

Title	(untitled)
Location	
Site number	
Date	08/11/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR\jack.clarke-williams
Description	

## Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

## Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

## Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓
D21	2031 + Cumulative	AM	ONE HOUR	07:15	08:45	15	✓
D22	2031 + Cumulative	PM	ONE HOUR	16:15	17:45	15	✓
D23	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D24	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D27	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D28	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D29	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D30	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D33	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D34	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓



### Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

# 2017, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.28	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Name	Description
1	Access (S)	
2	Barge Way	
3	Access Road (N)	
4	Private Road	

### Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Access (S)	3.75	6.00	16.5	13.5	48.0	26.0	
2 - Barge Way	3.75	7.00	8.5	18.5	47.5	33.0	
3 - Access Road (N)	3.75	6.50	12.5	11.5	43.0	47.0	
4 - Private Road	3.60	6.50	8.0	13.5	45.0	18.0	

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Access (S)	0.594	1595
2 - Barge Way	0.587	1556
3 - Access Road (N)	0.560	1471
4 - Private Road	0.599	1525

The slope and intercept shown above include any corrections and adjustments.

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

## Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	31	100.000
2 - Barge Way		ONE HOUR	✓	136	100.000
3 - Access Road (N)		ONE HOUR	✓	0	100.000
4 - Private Road		ONE HOUR	✓	71	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	9	0	22
	2 - Barge Way	32	2	0	102
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	21	49	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	89	0	100
	2 - Barge Way	47	50	0	34
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	78	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.04	4.82	0.0	A	28	43
2 - Barge Way	0.13	3.74	0.2	A	125	187
3 - Access Road (N)	0.00	0.00	0.0	A	0	0
4 - Private Road	0.09	4.82	0.1	A	65	98

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	23	6	39	790	0.030	23	40	0.0	0.0	4.695	A
2 - Barge Way	102	26	17	1119	0.091	102	45	0.0	0.1	3.536	A
3 - Access Road (N)	0	0	119	1373	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	53	13	25	831	0.064	53	94	0.0	0.1	4.626	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	28	7	47	786	0.035	28	48	0.0	0.0	4.748	A
2 - Barge Way	122	31	21	1116	0.110	122	54	0.1	0.1	3.620	A
3 - Access Road (N)	0	0	143	1354	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	64	16	31	829	0.077	64	112	0.1	0.1	4.706	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	34	9	57	780	0.044	34	58	0.0	0.0	4.824	A
2 - Barge Way	150	37	25	1112	0.135	150	66	0.1	0.2	3.738	A
3 - Access Road (N)	0	0	175	1328	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	78	20	37	825	0.095	78	138	0.1	0.1	4.817	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	34	9	57	780	0.044	34	58	0.0	0.0	4.824	A
2 - Barge Way	150	37	25	1112	0.135	150	66	0.2	0.2	3.738	A
3 - Access Road (N)	0	0	175	1328	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	78	20	37	825	0.095	78	138	0.1	0.1	4.817	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	28	7	47	786	0.035	28	48	0.0	0.0	4.749	A
2 - Barge Way	122	31	21	1116	0.110	122	54	0.2	0.1	3.621	A
3 - Access Road (N)	0	0	143	1354	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	64	16	31	829	0.077	64	112	0.1	0.1	4.709	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	23	6	39	790	0.030	23	40	0.0	0.0	4.696	A
2 - Barge Way	102	26	17	1119	0.091	102	45	0.1	0.1	3.540	A
3 - Access Road (N)	0	0	120	1373	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	53	13	26	831	0.064	54	94	0.1	0.1	4.629	A

# 2017, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.33	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	48	100.000
2 - Barge Way		ONE HOUR	✓	107	100.000
3 - Access Road (N)		ONE HOUR	✓	0	100.000
4 - Private Road		ONE HOUR	✓	103	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	44	0	4
	2 - Barge Way	8	2	0	97
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	2	101	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	46	0	25
	2 - Barge Way	88	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	18	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.05	3.61	0.1	A	44	66
2 - Barge Way	0.10	3.40	0.1	A	98	147
3 - Access Road (N)	0.00	0.00	0.0	A	0	0
4 - Private Road	0.09	3.10	0.1	A	95	142

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	36	9	77	1068	0.034	36	8	0.0	0.0	3.487	A
2 - Barge Way	81	20	3	1178	0.068	80	110	0.0	0.1	3.280	A
3 - Access Road (N)	0	0	83	1409	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	78	19	8	1279	0.061	77	76	0.0	0.1	2.996	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	93	1061	0.041	43	9	0.0	0.0	3.536	A
2 - Barge Way	96	24	4	1177	0.082	96	132	0.1	0.1	3.329	A
3 - Access Road (N)	0	0	100	1397	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	93	23	9	1277	0.073	93	91	0.1	0.1	3.038	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	53	13	113	1051	0.050	53	11	0.0	0.1	3.607	A
2 - Barge Way	118	29	4	1177	0.100	118	162	0.1	0.1	3.398	A
3 - Access Road (N)	0	0	122	1380	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	113	28	11	1275	0.089	113	111	0.1	0.1	3.097	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	53	13	113	1051	0.050	53	11	0.1	0.1	3.607	A
2 - Barge Way	118	29	4	1177	0.100	118	162	0.1	0.1	3.398	A
3 - Access Road (N)	0	0	122	1380	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	113	28	11	1275	0.089	113	111	0.1	0.1	3.097	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	93	1061	0.041	43	9	0.1	0.0	3.540	A
2 - Barge Way	96	24	4	1177	0.082	96	132	0.1	0.1	3.332	A
3 - Access Road (N)	0	0	100	1397	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	93	23	9	1277	0.073	93	91	0.1	0.1	3.041	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	36	9	78	1068	0.034	36	8	0.0	0.0	3.490	A
2 - Barge Way	81	20	3	1178	0.068	81	111	0.1	0.1	3.281	A
3 - Access Road (N)	0	0	84	1409	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	78	19	8	1278	0.061	78	76	0.1	0.1	2.999	A

# 2024, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.11	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	31	100.000
2 - Barge Way		ONE HOUR	✓	191	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	9	0	22
	2 - Barge Way	32	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	89	0	100
	2 - Barge Way	47	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0



## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.04	4.92	0.0	A	28	43
2 - Barge Way	0.18	3.71	0.2	A	175	263
3 - Access Road (N)	0.02	2.77	0.0	A	18	28
4 - Private Road	0.11	4.60	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	23	6	70	780	0.030	23	40	0.0	0.0	4.759	A
2 - Barge Way	144	36	17	1188	0.121	143	76	0.0	0.1	3.443	A
3 - Access Road (N)	15	4	126	1367	0.011	15	34	0.0	0.0	2.661	A
4 - Private Road	69	17	41	893	0.078	69	100	0.0	0.1	4.365	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	28	7	84	774	0.036	28	48	0.0	0.0	4.827	A
2 - Barge Way	172	43	21	1185	0.145	172	91	0.1	0.2	3.551	A
3 - Access Road (N)	18	4	151	1347	0.013	18	41	0.0	0.0	2.708	A
4 - Private Road	83	21	49	889	0.093	83	120	0.1	0.1	4.462	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	34	9	102	765	0.045	34	58	0.0	0.0	4.923	A
2 - Barge Way	210	53	25	1181	0.178	210	111	0.2	0.2	3.707	A
3 - Access Road (N)	22	6	185	1319	0.017	22	51	0.0	0.0	2.775	A
4 - Private Road	101	25	59	884	0.115	101	147	0.1	0.1	4.596	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	34	9	102	765	0.045	34	58	0.0	0.0	4.923	A
2 - Barge Way	210	53	25	1181	0.178	210	111	0.2	0.2	3.707	A
3 - Access Road (N)	22	6	185	1319	0.017	22	51	0.0	0.0	2.775	A
4 - Private Road	101	25	59	884	0.115	101	148	0.1	0.1	4.596	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	28	7	84	773	0.036	28	48	0.0	0.0	4.830	A
2 - Barge Way	172	43	21	1185	0.145	172	91	0.2	0.2	3.552	A
3 - Access Road (N)	18	4	151	1347	0.013	18	41	0.0	0.0	2.711	A
4 - Private Road	83	21	49	889	0.093	83	121	0.1	0.1	4.465	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	23	6	70	780	0.030	23	40	0.0	0.0	4.760	A
2 - Barge Way	144	36	17	1188	0.121	144	76	0.2	0.1	3.449	A
3 - Access Road (N)	15	4	127	1367	0.011	15	35	0.0	0.0	2.664	A
4 - Private Road	69	17	41	893	0.078	69	101	0.1	0.1	4.372	A

# 2024, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.35	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	48	100.000
2 - Barge Way		ONE HOUR	✓	143	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	44	0	4
	2 - Barge Way	8	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	46	0	25
	2 - Barge Way	88	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.05	3.68	0.1	A	44	66
2 - Barge Way	0.13	3.39	0.1	A	131	197
3 - Access Road (N)	0.03	2.71	0.0	A	30	45
4 - Private Road	0.10	3.28	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	36	9	107	1054	0.034	36	8	0.0	0.0	3.534	A
2 - Barge Way	108	27	3	1221	0.088	107	140	0.0	0.1	3.233	A
3 - Access Road (N)	25	6	97	1400	0.018	25	14	0.0	0.0	2.618	A
4 - Private Road	82	21	32	1226	0.067	82	89	0.0	0.1	3.146	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	128	1044	0.041	43	9	0.0	0.0	3.594	A
2 - Barge Way	129	32	4	1220	0.105	128	167	0.1	0.1	3.296	A
3 - Access Road (N)	30	7	116	1386	0.021	30	16	0.0	0.0	2.654	A
4 - Private Road	98	24	39	1222	0.080	98	107	0.1	0.1	3.201	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	53	13	156	1030	0.051	53	11	0.0	0.1	3.681	A
2 - Barge Way	157	39	4	1220	0.129	157	205	0.1	0.1	3.387	A
3 - Access Road (N)	36	9	142	1366	0.027	36	20	0.0	0.0	2.706	A
4 - Private Road	120	30	47	1217	0.099	120	131	0.1	0.1	3.280	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	53	13	156	1030	0.051	53	11	0.1	0.1	3.681	A
2 - Barge Way	157	39	4	1220	0.129	157	205	0.1	0.1	3.387	A
3 - Access Road (N)	36	9	142	1366	0.027	36	20	0.0	0.0	2.706	A
4 - Private Road	120	30	47	1217	0.099	120	131	0.1	0.1	3.280	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	128	1044	0.041	43	9	0.1	0.0	3.595	A
2 - Barge Way	129	32	4	1220	0.105	129	167	0.1	0.1	3.297	A
3 - Access Road (N)	30	7	116	1385	0.021	30	16	0.0	0.0	2.657	A
4 - Private Road	98	24	39	1222	0.080	98	107	0.1	0.1	3.202	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	36	9	107	1054	0.034	36	8	0.0	0.0	3.535	A
2 - Barge Way	108	27	3	1221	0.088	108	140	0.1	0.1	3.234	A
3 - Access Road (N)	25	6	97	1399	0.018	25	14	0.0	0.0	2.618	A
4 - Private Road	82	21	32	1226	0.067	82	90	0.1	0.1	3.147	A

# 2024 + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.11	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	31	100.000
2 - Barge Way		ONE HOUR	✓	191	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	9	0	22
	2 - Barge Way	32	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	89	0	100
	2 - Barge Way	47	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.04	4.92	0.0	A	28	43
2 - Barge Way	0.18	3.71	0.2	A	175	263
3 - Access Road (N)	0.02	2.77	0.0	A	18	28
4 - Private Road	0.11	4.60	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	23	6	70	780	0.030	23	40	0.0	0.0	4.759	A
2 - Barge Way	144	36	17	1188	0.121	143	76	0.0	0.1	3.443	A
3 - Access Road (N)	15	4	126	1367	0.011	15	34	0.0	0.0	2.661	A
4 - Private Road	69	17	41	893	0.078	69	100	0.0	0.1	4.365	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	28	7	84	774	0.036	28	48	0.0	0.0	4.827	A
2 - Barge Way	172	43	21	1185	0.145	172	91	0.1	0.2	3.551	A
3 - Access Road (N)	18	4	151	1347	0.013	18	41	0.0	0.0	2.708	A
4 - Private Road	83	21	49	889	0.093	83	120	0.1	0.1	4.462	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	34	9	102	765	0.045	34	58	0.0	0.0	4.923	A
2 - Barge Way	210	53	25	1181	0.178	210	111	0.2	0.2	3.707	A
3 - Access Road (N)	22	6	185	1319	0.017	22	51	0.0	0.0	2.775	A
4 - Private Road	101	25	59	884	0.115	101	147	0.1	0.1	4.596	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	34	9	102	765	0.045	34	58	0.0	0.0	4.923	A
2 - Barge Way	210	53	25	1181	0.178	210	111	0.2	0.2	3.707	A
3 - Access Road (N)	22	6	185	1319	0.017	22	51	0.0	0.0	2.775	A
4 - Private Road	101	25	59	884	0.115	101	148	0.1	0.1	4.596	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	28	7	84	773	0.036	28	48	0.0	0.0	4.830	A
2 - Barge Way	172	43	21	1185	0.145	172	91	0.2	0.2	3.552	A
3 - Access Road (N)	18	4	151	1347	0.013	18	41	0.0	0.0	2.711	A
4 - Private Road	83	21	49	889	0.093	83	121	0.1	0.1	4.465	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	23	6	70	780	0.030	23	40	0.0	0.0	4.760	A
2 - Barge Way	144	36	17	1188	0.121	144	76	0.2	0.1	3.449	A
3 - Access Road (N)	15	4	127	1367	0.011	15	35	0.0	0.0	2.664	A
4 - Private Road	69	17	41	893	0.078	69	101	0.1	0.1	4.372	A



# 2024 + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.35	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	48	100.000
2 - Barge Way		ONE HOUR	✓	143	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	44	0	4
	2 - Barge Way	8	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	46	0	25
	2 - Barge Way	88	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.05	3.68	0.1	A	44	66
2 - Barge Way	0.13	3.39	0.1	A	131	197
3 - Access Road (N)	0.03	2.71	0.0	A	30	45
4 - Private Road	0.10	3.28	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	36	9	107	1054	0.034	36	8	0.0	0.0	3.534	A
2 - Barge Way	108	27	3	1221	0.088	107	140	0.0	0.1	3.233	A
3 - Access Road (N)	25	6	97	1400	0.018	25	14	0.0	0.0	2.618	A
4 - Private Road	82	21	32	1226	0.067	82	89	0.0	0.1	3.146	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	128	1044	0.041	43	9	0.0	0.0	3.594	A
2 - Barge Way	129	32	4	1220	0.105	128	167	0.1	0.1	3.296	A
3 - Access Road (N)	30	7	116	1386	0.021	30	16	0.0	0.0	2.654	A
4 - Private Road	98	24	39	1222	0.080	98	107	0.1	0.1	3.201	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	53	13	156	1030	0.051	53	11	0.0	0.1	3.681	A
2 - Barge Way	157	39	4	1220	0.129	157	205	0.1	0.1	3.387	A
3 - Access Road (N)	36	9	142	1366	0.027	36	20	0.0	0.0	2.706	A
4 - Private Road	120	30	47	1217	0.099	120	131	0.1	0.1	3.280	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	53	13	156	1030	0.051	53	11	0.1	0.1	3.681	A
2 - Barge Way	157	39	4	1220	0.129	157	205	0.1	0.1	3.387	A
3 - Access Road (N)	36	9	142	1366	0.027	36	20	0.0	0.0	2.706	A
4 - Private Road	120	30	47	1217	0.099	120	131	0.1	0.1	3.280	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	128	1044	0.041	43	9	0.1	0.0	3.595	A
2 - Barge Way	129	32	4	1220	0.105	129	167	0.1	0.1	3.297	A
3 - Access Road (N)	30	7	116	1385	0.021	30	16	0.0	0.0	2.657	A
4 - Private Road	98	24	39	1222	0.080	98	107	0.1	0.1	3.202	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	36	9	107	1054	0.034	36	8	0.0	0.0	3.535	A
2 - Barge Way	108	27	3	1221	0.088	108	140	0.1	0.1	3.234	A
3 - Access Road (N)	25	6	97	1399	0.018	25	14	0.0	0.0	2.618	A
4 - Private Road	82	21	32	1226	0.067	82	90	0.1	0.1	3.147	A

# 2024 + K3 Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.30	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	47	100.000
2 - Barge Way		ONE HOUR	✓	218	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	25	0	22
	2 - Barge Way	59	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	96	0	100
	2 - Barge Way	51	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.07	5.07	0.1	A	43	65
2 - Barge Way	0.21	3.95	0.3	A	200	300
3 - Access Road (N)	0.02	2.83	0.0	A	18	28
4 - Private Road	0.12	4.70	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.046	35	60	0.0	0.0	4.861	A
2 - Barge Way	164	41	17	1159	0.142	163	88	0.0	0.2	3.615	A
3 - Access Road (N)	15	4	146	1350	0.011	15	34	0.0	0.0	2.696	A
4 - Private Road	69	17	61	882	0.079	69	100	0.0	0.1	4.426	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	84	769	0.055	42	72	0.0	0.1	4.950	A
2 - Barge Way	196	49	21	1156	0.170	196	105	0.2	0.2	3.749	A
3 - Access Road (N)	18	4	175	1326	0.014	18	41	0.0	0.0	2.752	A
4 - Private Road	83	21	73	876	0.094	83	120	0.1	0.1	4.538	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	52	13	102	761	0.068	52	88	0.1	0.1	5.074	A
2 - Barge Way	240	60	25	1152	0.208	240	129	0.2	0.3	3.945	A
3 - Access Road (N)	22	6	214	1293	0.017	22	51	0.0	0.0	2.831	A
4 - Private Road	101	25	89	868	0.117	101	147	0.1	0.1	4.696	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	52	13	102	761	0.068	52	88	0.1	0.1	5.074	A
2 - Barge Way	240	60	25	1152	0.208	240	129	0.3	0.3	3.947	A
3 - Access Road (N)	22	6	215	1293	0.017	22	51	0.0	0.0	2.832	A
4 - Private Road	101	25	89	868	0.117	101	148	0.1	0.1	4.696	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	84	769	0.055	42	72	0.1	0.1	4.953	A
2 - Barge Way	196	49	21	1156	0.170	196	105	0.3	0.2	3.751	A
3 - Access Road (N)	18	4	176	1325	0.014	18	41	0.0	0.0	2.755	A
4 - Private Road	83	21	73	876	0.094	83	121	0.1	0.1	4.539	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.046	35	60	0.1	0.0	4.867	A
2 - Barge Way	164	41	17	1159	0.142	164	88	0.2	0.2	3.619	A
3 - Access Road (N)	15	4	147	1349	0.011	15	35	0.0	0.0	2.698	A
4 - Private Road	69	17	61	882	0.079	69	101	0.1	0.1	4.431	A

# 2024 + K3 Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.56	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	75	100.000
2 - Barge Way		ONE HOUR	✓	158	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	71	0	4
	2 - Barge Way	23	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	49	0	25
	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	3.90	0.1	A	69	103
2 - Barge Way	0.15	3.66	0.2	A	145	217
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.33	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	56	19	0.0	0.1	3.697	A
2 - Barge Way	119	30	3	1158	0.103	118	160	0.0	0.1	3.462	A
3 - Access Road (N)	25	6	108	1387	0.018	25	13	0.0	0.0	2.642	A
4 - Private Road	82	21	44	1215	0.068	82	89	0.0	0.1	3.177	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	191	0.1	0.1	3.544	A
3 - Access Road (N)	30	7	129	1370	0.022	30	16	0.0	0.0	2.684	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.239	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	234	0.1	0.2	3.661	A
3 - Access Road (N)	36	9	158	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	235	0.2	0.2	3.661	A
3 - Access Road (N)	36	9	159	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	192	0.2	0.1	3.548	A
3 - Access Road (N)	30	7	130	1370	0.022	30	16	0.0	0.0	2.687	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.243	A



17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	57	19	0.1	0.1	3.702	A
2 - Barge Way	119	30	3	1158	0.103	119	160	0.1	0.1	3.465	A
3 - Access Road (N)	25	6	109	1387	0.018	25	14	0.0	0.0	2.643	A
4 - Private Road	82	21	44	1215	0.068	82	90	0.1	0.1	3.180	A

# 2024 + K3 and WKN Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.42	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	56	100.000
2 - Barge Way		ONE HOUR	✓	227	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	34	0	22
	2 - Barge Way	68	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	97	0	100
	2 - Barge Way	57	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	5.15	0.1	A	51	77
2 - Barge Way	0.22	4.09	0.3	A	208	312
3 - Access Road (N)	0.02	2.86	0.0	A	18	28
4 - Private Road	0.12	4.74	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	70	774	0.054	42	67	0.0	0.1	4.914	A
2 - Barge Way	171	43	17	1137	0.150	170	94	0.0	0.2	3.721	A
3 - Access Road (N)	15	4	153	1342	0.011	15	34	0.0	0.0	2.712	A
4 - Private Road	69	17	67	877	0.079	69	100	0.0	0.1	4.452	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	50	13	84	768	0.066	50	80	0.1	0.1	5.014	A
2 - Barge Way	204	51	21	1134	0.180	204	113	0.2	0.2	3.869	A
3 - Access Road (N)	18	4	183	1317	0.014	18	41	0.0	0.0	2.771	A
4 - Private Road	83	21	81	870	0.095	83	120	0.1	0.1	4.570	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	62	15	102	760	0.081	62	98	0.1	0.1	5.155	A
2 - Barge Way	250	62	25	1130	0.221	250	139	0.2	0.3	4.086	A
3 - Access Road (N)	22	6	224	1282	0.017	22	51	0.0	0.0	2.856	A
4 - Private Road	101	25	99	861	0.118	101	147	0.1	0.1	4.739	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	62	15	102	760	0.081	62	98	0.1	0.1	5.155	A
2 - Barge Way	250	62	25	1130	0.221	250	139	0.3	0.3	4.088	A
3 - Access Road (N)	22	6	225	1282	0.017	22	51	0.0	0.0	2.856	A
4 - Private Road	101	25	99	861	0.118	101	148	0.1	0.1	4.739	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	50	13	84	768	0.066	50	80	0.1	0.1	5.018	A
2 - Barge Way	204	51	21	1134	0.180	204	113	0.3	0.2	3.871	A
3 - Access Road (N)	18	4	184	1316	0.014	18	41	0.0	0.0	2.772	A
4 - Private Road	83	21	81	870	0.095	83	121	0.1	0.1	4.572	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	70	774	0.054	42	67	0.1	0.1	4.918	A
2 - Barge Way	171	43	17	1137	0.150	171	95	0.2	0.2	3.728	A
3 - Access Road (N)	15	4	154	1342	0.011	15	35	0.0	0.0	2.715	A
4 - Private Road	69	17	68	877	0.079	69	101	0.1	0.1	4.459	A

# 2024 + K3 and WKN Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.64	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	94	100.000
2 - Barge Way		ONE HOUR	✓	163	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	90	0	4
	2 - Barge Way	28	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	48	0	25
	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.10	3.97	0.1	A	86	129
2 - Barge Way	0.16	3.74	0.2	A	150	224
3 - Access Road (N)	0.03	2.76	0.0	A	30	45
4 - Private Road	0.10	3.35	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	71	18	107	1035	0.068	70	22	0.0	0.1	3.734	A
2 - Barge Way	123	31	3	1142	0.108	122	174	0.0	0.1	3.529	A
3 - Access Road (N)	25	6	112	1383	0.018	25	13	0.0	0.0	2.650	A
4 - Private Road	82	21	47	1211	0.068	82	89	0.0	0.1	3.187	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	85	21	128	1025	0.082	84	27	0.1	0.1	3.828	A
2 - Barge Way	147	37	4	1141	0.128	146	208	0.1	0.1	3.618	A
3 - Access Road (N)	30	7	134	1365	0.022	30	16	0.0	0.0	2.694	A
4 - Private Road	98	24	57	1205	0.081	98	107	0.1	0.1	3.252	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	103	26	156	1011	0.102	103	33	0.1	0.1	3.966	A
2 - Barge Way	179	45	4	1141	0.157	179	255	0.1	0.2	3.743	A
3 - Access Road (N)	36	9	164	1342	0.027	36	20	0.0	0.0	2.756	A
4 - Private Road	120	30	69	1196	0.100	120	131	0.1	0.1	3.346	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	103	26	156	1011	0.102	103	33	0.1	0.1	3.966	A
2 - Barge Way	179	45	4	1141	0.157	179	255	0.2	0.2	3.743	A
3 - Access Road (N)	36	9	164	1342	0.027	36	20	0.0	0.0	2.757	A
4 - Private Road	120	30	69	1196	0.100	120	131	0.1	0.1	3.346	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	85	21	128	1025	0.082	85	27	0.1	0.1	3.829	A
2 - Barge Way	147	37	4	1141	0.128	147	209	0.2	0.1	3.622	A
3 - Access Road (N)	30	7	134	1365	0.022	30	16	0.0	0.0	2.697	A
4 - Private Road	98	24	57	1205	0.081	98	107	0.1	0.1	3.253	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	71	18	107	1034	0.068	71	23	0.1	0.1	3.738	A
2 - Barge Way	123	31	3	1142	0.108	123	175	0.1	0.1	3.533	A
3 - Access Road (N)	25	6	112	1382	0.018	25	14	0.0	0.0	2.651	A
4 - Private Road	82	21	47	1211	0.068	82	90	0.1	0.1	3.190	A

# 2024 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.30	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	47	100.000
2 - Barge Way		ONE HOUR	✓	218	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	25	0	22
	2 - Barge Way	59	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix



### Heavy Vehicle Percentages

	To				
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	96	0	100
	2 - Barge Way	51	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.07	5.07	0.1	A	43	65
2 - Barge Way	0.21	3.95	0.3	A	200	300
3 - Access Road (N)	0.02	2.83	0.0	A	18	28
4 - Private Road	0.12	4.70	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.046	35	60	0.0	0.0	4.861	A
2 - Barge Way	164	41	17	1159	0.142	163	88	0.0	0.2	3.615	A
3 - Access Road (N)	15	4	146	1350	0.011	15	34	0.0	0.0	2.696	A
4 - Private Road	69	17	61	882	0.079	69	100	0.0	0.1	4.426	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	84	769	0.055	42	72	0.0	0.1	4.950	A
2 - Barge Way	196	49	21	1156	0.170	196	105	0.2	0.2	3.749	A
3 - Access Road (N)	18	4	175	1326	0.014	18	41	0.0	0.0	2.752	A
4 - Private Road	83	21	73	876	0.094	83	120	0.1	0.1	4.538	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	52	13	102	761	0.068	52	88	0.1	0.1	5.074	A
2 - Barge Way	240	60	25	1152	0.208	240	129	0.2	0.3	3.945	A
3 - Access Road (N)	22	6	214	1293	0.017	22	51	0.0	0.0	2.831	A
4 - Private Road	101	25	89	868	0.117	101	147	0.1	0.1	4.696	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	52	13	102	761	0.068	52	88	0.1	0.1	5.074	A
2 - Barge Way	240	60	25	1152	0.208	240	129	0.3	0.3	3.947	A
3 - Access Road (N)	22	6	215	1293	0.017	22	51	0.0	0.0	2.832	A
4 - Private Road	101	25	89	868	0.117	101	148	0.1	0.1	4.696	A

**08:15 - 08:30**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	84	769	0.055	42	72	0.1	0.1	4.953	A
2 - Barge Way	196	49	21	1156	0.170	196	105	0.3	0.2	3.751	A
3 - Access Road (N)	18	4	176	1325	0.014	18	41	0.0	0.0	2.755	A
4 - Private Road	83	21	73	876	0.094	83	121	0.1	0.1	4.539	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.046	35	60	0.1	0.0	4.867	A
2 - Barge Way	164	41	17	1159	0.142	164	88	0.2	0.2	3.619	A
3 - Access Road (N)	15	4	147	1349	0.011	15	35	0.0	0.0	2.698	A
4 - Private Road	69	17	61	882	0.079	69	101	0.1	0.1	4.431	A

# 2024 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.56	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	75	100.000
2 - Barge Way		ONE HOUR	✓	158	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	71	0	4
	2 - Barge Way	23	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
From		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
	1 - Access (S)	0	49	0	25
	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	3.90	0.1	A	69	103
2 - Barge Way	0.15	3.66	0.2	A	145	217
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.33	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	56	19	0.0	0.1	3.697	A
2 - Barge Way	119	30	3	1158	0.103	118	160	0.0	0.1	3.462	A
3 - Access Road (N)	25	6	108	1387	0.018	25	13	0.0	0.0	2.642	A
4 - Private Road	82	21	44	1215	0.068	82	89	0.0	0.1	3.177	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	191	0.1	0.1	3.544	A
3 - Access Road (N)	30	7	129	1370	0.022	30	16	0.0	0.0	2.684	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.239	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	234	0.1	0.2	3.661	A
3 - Access Road (N)	36	9	158	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	235	0.2	0.2	3.661	A
3 - Access Road (N)	36	9	159	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	192	0.2	0.1	3.548	A
3 - Access Road (N)	30	7	130	1370	0.022	30	16	0.0	0.0	2.687	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.243	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	57	19	0.1	0.1	3.702	A
2 - Barge Way	119	30	3	1158	0.103	119	160	0.1	0.1	3.465	A
3 - Access Road (N)	25	6	109	1387	0.018	25	14	0.0	0.0	2.643	A
4 - Private Road	82	21	44	1215	0.068	82	90	0.1	0.1	3.180	A

# 2024 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.42	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	56	100.000
2 - Barge Way		ONE HOUR	✓	227	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	34	0	22
	2 - Barge Way	68	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
From		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
	1 - Access (S)	0	97	0	100
	2 - Barge Way	57	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	5.15	0.1	A	51	77
2 - Barge Way	0.22	4.09	0.3	A	208	312
3 - Access Road (N)	0.02	2.86	0.0	A	18	28
4 - Private Road	0.12	4.74	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	70	774	0.054	42	67	0.0	0.1	4.914	A
2 - Barge Way	171	43	17	1137	0.150	170	94	0.0	0.2	3.721	A
3 - Access Road (N)	15	4	153	1342	0.011	15	34	0.0	0.0	2.712	A
4 - Private Road	69	17	67	877	0.079	69	100	0.0	0.1	4.452	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	50	13	84	768	0.066	50	80	0.1	0.1	5.014	A
2 - Barge Way	204	51	21	1134	0.180	204	113	0.2	0.2	3.869	A
3 - Access Road (N)	18	4	183	1317	0.014	18	41	0.0	0.0	2.771	A
4 - Private Road	83	21	81	870	0.095	83	120	0.1	0.1	4.570	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	62	15	102	760	0.081	62	98	0.1	0.1	5.155	A
2 - Barge Way	250	62	25	1130	0.221	250	139	0.2	0.3	4.086	A
3 - Access Road (N)	22	6	224	1282	0.017	22	51	0.0	0.0	2.856	A
4 - Private Road	101	25	99	861	0.118	101	147	0.1	0.1	4.739	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	62	15	102	760	0.081	62	98	0.1	0.1	5.155	A
2 - Barge Way	250	62	25	1130	0.221	250	139	0.3	0.3	4.088	A
3 - Access Road (N)	22	6	225	1282	0.017	22	51	0.0	0.0	2.856	A
4 - Private Road	101	25	99	861	0.118	101	148	0.1	0.1	4.739	A

**08:15 - 08:30**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	50	13	84	768	0.066	50	80	0.1	0.1	5.018	A
2 - Barge Way	204	51	21	1134	0.180	204	113	0.3	0.2	3.871	A
3 - Access Road (N)	18	4	184	1316	0.014	18	41	0.0	0.0	2.772	A
4 - Private Road	83	21	81	870	0.095	83	121	0.1	0.1	4.572	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	70	774	0.054	42	67	0.1	0.1	4.918	A
2 - Barge Way	171	43	17	1137	0.150	171	95	0.2	0.2	3.728	A
3 - Access Road (N)	15	4	154	1342	0.011	15	35	0.0	0.0	2.715	A
4 - Private Road	69	17	68	877	0.079	69	101	0.1	0.1	4.459	A



# 2024 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.64	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	94	100.000
2 - Barge Way		ONE HOUR	✓	163	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From	To			
	1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
1 - Access (S)	0	90	0	4
2 - Barge Way	28	2	18	115
3 - Access Road (N)	0	33	0	0
4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From				
1 - Access (S)	0	48	0	25
2 - Barge Way	96	50	0	27
3 - Access Road (N)	0	0	0	0
4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.10	3.97	0.1	A	86	129
2 - Barge Way	0.16	3.74	0.2	A	150	224
3 - Access Road (N)	0.03	2.76	0.0	A	30	45
4 - Private Road	0.10	3.35	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	71	18	107	1035	0.068	70	22	0.0	0.1	3.734	A
2 - Barge Way	123	31	3	1142	0.108	122	174	0.0	0.1	3.529	A
3 - Access Road (N)	25	6	112	1383	0.018	25	13	0.0	0.0	2.650	A
4 - Private Road	82	21	47	1211	0.068	82	89	0.0	0.1	3.187	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	85	21	128	1025	0.082	84	27	0.1	0.1	3.828	A
2 - Barge Way	147	37	4	1141	0.128	146	208	0.1	0.1	3.618	A
3 - Access Road (N)	30	7	134	1365	0.022	30	16	0.0	0.0	2.694	A
4 - Private Road	98	24	57	1205	0.081	98	107	0.1	0.1	3.252	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	103	26	156	1011	0.102	103	33	0.1	0.1	3.966	A
2 - Barge Way	179	45	4	1141	0.157	179	255	0.1	0.2	3.743	A
3 - Access Road (N)	36	9	164	1342	0.027	36	20	0.0	0.0	2.756	A
4 - Private Road	120	30	69	1196	0.100	120	131	0.1	0.1	3.346	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	103	26	156	1011	0.102	103	33	0.1	0.1	3.966	A
2 - Barge Way	179	45	4	1141	0.157	179	255	0.2	0.2	3.743	A
3 - Access Road (N)	36	9	164	1342	0.027	36	20	0.0	0.0	2.757	A
4 - Private Road	120	30	69	1196	0.100	120	131	0.1	0.1	3.346	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	85	21	128	1025	0.082	85	27	0.1	0.1	3.829	A
2 - Barge Way	147	37	4	1141	0.128	147	209	0.2	0.1	3.622	A
3 - Access Road (N)	30	7	134	1365	0.022	30	16	0.0	0.0	2.697	A
4 - Private Road	98	24	57	1205	0.081	98	107	0.1	0.1	3.253	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	71	18	107	1034	0.068	71	23	0.1	0.1	3.738	A
2 - Barge Way	123	31	3	1142	0.108	123	175	0.1	0.1	3.533	A
3 - Access Road (N)	25	6	112	1382	0.018	25	14	0.0	0.0	2.651	A
4 - Private Road	82	21	47	1211	0.068	82	90	0.1	0.1	3.190	A

# 2031, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.11	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	31	100.000
2 - Barge Way		ONE HOUR	✓	191	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	9	0	22
	2 - Barge Way	32	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	89	0	100
	2 - Barge Way	47	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.04	4.92	0.0	A	28	43
2 - Barge Way	0.18	3.71	0.2	A	175	263
3 - Access Road (N)	0.02	2.77	0.0	A	18	28
4 - Private Road	0.11	4.60	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	23	6	70	780	0.030	23	40	0.0	0.0	4.759	A
2 - Barge Way	144	36	17	1188	0.121	143	76	0.0	0.1	3.443	A
3 - Access Road (N)	15	4	126	1367	0.011	15	34	0.0	0.0	2.661	A
4 - Private Road	69	17	41	893	0.078	69	100	0.0	0.1	4.365	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	28	7	84	774	0.036	28	48	0.0	0.0	4.827	A
2 - Barge Way	172	43	21	1185	0.145	172	91	0.1	0.2	3.551	A
3 - Access Road (N)	18	4	151	1347	0.013	18	41	0.0	0.0	2.708	A
4 - Private Road	83	21	49	889	0.093	83	120	0.1	0.1	4.462	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	34	9	102	765	0.045	34	58	0.0	0.0	4.923	A
2 - Barge Way	210	53	25	1181	0.178	210	111	0.2	0.2	3.707	A
3 - Access Road (N)	22	6	185	1319	0.017	22	51	0.0	0.0	2.775	A
4 - Private Road	101	25	59	884	0.115	101	147	0.1	0.1	4.596	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	34	9	102	765	0.045	34	58	0.0	0.0	4.923	A
2 - Barge Way	210	53	25	1181	0.178	210	111	0.2	0.2	3.707	A
3 - Access Road (N)	22	6	185	1319	0.017	22	51	0.0	0.0	2.775	A
4 - Private Road	101	25	59	884	0.115	101	148	0.1	0.1	4.596	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	28	7	84	773	0.036	28	48	0.0	0.0	4.830	A
2 - Barge Way	172	43	21	1185	0.145	172	91	0.2	0.2	3.552	A
3 - Access Road (N)	18	4	151	1347	0.013	18	41	0.0	0.0	2.711	A
4 - Private Road	83	21	49	889	0.093	83	121	0.1	0.1	4.465	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	23	6	70	780	0.030	23	40	0.0	0.0	4.760	A
2 - Barge Way	144	36	17	1188	0.121	144	76	0.2	0.1	3.449	A
3 - Access Road (N)	15	4	127	1367	0.011	15	35	0.0	0.0	2.664	A
4 - Private Road	69	17	41	893	0.078	69	101	0.1	0.1	4.372	A

# 2031, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.35	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	48	100.000
2 - Barge Way		ONE HOUR	✓	143	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	44	0	4
	2 - Barge Way	8	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	46	0	25
	2 - Barge Way	88	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.05	3.68	0.1	A	44	66
2 - Barge Way	0.13	3.39	0.1	A	131	197
3 - Access Road (N)	0.03	2.71	0.0	A	30	45
4 - Private Road	0.10	3.28	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	36	9	107	1054	0.034	36	8	0.0	0.0	3.534	A
2 - Barge Way	108	27	3	1221	0.088	107	140	0.0	0.1	3.233	A
3 - Access Road (N)	25	6	97	1400	0.018	25	14	0.0	0.0	2.618	A
4 - Private Road	82	21	32	1226	0.067	82	89	0.0	0.1	3.146	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	128	1044	0.041	43	9	0.0	0.0	3.594	A
2 - Barge Way	129	32	4	1220	0.105	128	167	0.1	0.1	3.296	A
3 - Access Road (N)	30	7	116	1386	0.021	30	16	0.0	0.0	2.654	A
4 - Private Road	98	24	39	1222	0.080	98	107	0.1	0.1	3.201	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	53	13	156	1030	0.051	53	11	0.0	0.1	3.681	A
2 - Barge Way	157	39	4	1220	0.129	157	205	0.1	0.1	3.387	A
3 - Access Road (N)	36	9	142	1366	0.027	36	20	0.0	0.0	2.706	A
4 - Private Road	120	30	47	1217	0.099	120	131	0.1	0.1	3.280	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	53	13	156	1030	0.051	53	11	0.1	0.1	3.681	A
2 - Barge Way	157	39	4	1220	0.129	157	205	0.1	0.1	3.387	A
3 - Access Road (N)	36	9	142	1366	0.027	36	20	0.0	0.0	2.706	A
4 - Private Road	120	30	47	1217	0.099	120	131	0.1	0.1	3.280	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	128	1044	0.041	43	9	0.1	0.0	3.595	A
2 - Barge Way	129	32	4	1220	0.105	129	167	0.1	0.1	3.297	A
3 - Access Road (N)	30	7	116	1385	0.021	30	16	0.0	0.0	2.657	A
4 - Private Road	98	24	39	1222	0.080	98	107	0.1	0.1	3.202	A



17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	36	9	107	1054	0.034	36	8	0.0	0.0	3.535	A
2 - Barge Way	108	27	3	1221	0.088	108	140	0.1	0.1	3.234	A
3 - Access Road (N)	25	6	97	1399	0.018	25	14	0.0	0.0	2.618	A
4 - Private Road	82	21	32	1226	0.067	82	90	0.1	0.1	3.147	A

# 2031 + Cumulative , AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.11	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D21	2031 + Cumulative	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	31	100.000
2 - Barge Way		ONE HOUR	✓	191	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	9	0	22
	2 - Barge Way	32	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	89	0	100
	2 - Barge Way	47	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.04	4.92	0.0	A	28	43
2 - Barge Way	0.18	3.71	0.2	A	175	263
3 - Access Road (N)	0.02	2.77	0.0	A	18	28
4 - Private Road	0.11	4.60	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	23	6	70	780	0.030	23	40	0.0	0.0	4.759	A
2 - Barge Way	144	36	17	1188	0.121	143	76	0.0	0.1	3.443	A
3 - Access Road (N)	15	4	126	1367	0.011	15	34	0.0	0.0	2.661	A
4 - Private Road	69	17	41	893	0.078	69	100	0.0	0.1	4.365	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	28	7	84	774	0.036	28	48	0.0	0.0	4.827	A
2 - Barge Way	172	43	21	1185	0.145	172	91	0.1	0.2	3.551	A
3 - Access Road (N)	18	4	151	1347	0.013	18	41	0.0	0.0	2.708	A
4 - Private Road	83	21	49	889	0.093	83	120	0.1	0.1	4.462	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	34	9	102	765	0.045	34	58	0.0	0.0	4.923	A
2 - Barge Way	210	53	25	1181	0.178	210	111	0.2	0.2	3.707	A
3 - Access Road (N)	22	6	185	1319	0.017	22	51	0.0	0.0	2.775	A
4 - Private Road	101	25	59	884	0.115	101	147	0.1	0.1	4.596	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	34	9	102	765	0.045	34	58	0.0	0.0	4.923	A
2 - Barge Way	210	53	25	1181	0.178	210	111	0.2	0.2	3.707	A
3 - Access Road (N)	22	6	185	1319	0.017	22	51	0.0	0.0	2.775	A
4 - Private Road	101	25	59	884	0.115	101	148	0.1	0.1	4.596	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	28	7	84	773	0.036	28	48	0.0	0.0	4.830	A
2 - Barge Way	172	43	21	1185	0.145	172	91	0.2	0.2	3.552	A
3 - Access Road (N)	18	4	151	1347	0.013	18	41	0.0	0.0	2.711	A
4 - Private Road	83	21	49	889	0.093	83	121	0.1	0.1	4.465	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	23	6	70	780	0.030	23	40	0.0	0.0	4.760	A
2 - Barge Way	144	36	17	1188	0.121	144	76	0.2	0.1	3.449	A
3 - Access Road (N)	15	4	127	1367	0.011	15	35	0.0	0.0	2.664	A
4 - Private Road	69	17	41	893	0.078	69	101	0.1	0.1	4.372	A

# 2031 + Cumulative, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.46	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D22	2031 + Cumulative	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	48	100.000
2 - Barge Way		ONE HOUR	✓	156	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	44	0	4
	2 - Barge Way	21	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	46	0	25
	2 - Barge Way	88	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.05	3.68	0.1	A	44	66
2 - Barge Way	0.15	3.59	0.2	A	143	215
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.32	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	36	9	107	1054	0.034	36	17	0.0	0.0	3.534	A
2 - Barge Way	117	29	3	1174	0.100	117	140	0.0	0.1	3.403	A
3 - Access Road (N)	25	6	107	1389	0.018	25	14	0.0	0.0	2.637	A
4 - Private Road	82	21	42	1217	0.067	82	89	0.0	0.1	3.171	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	128	1044	0.041	43	21	0.0	0.0	3.594	A
2 - Barge Way	140	35	4	1174	0.119	140	167	0.1	0.1	3.482	A
3 - Access Road (N)	30	7	128	1373	0.022	30	16	0.0	0.0	2.678	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.232	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	53	13	156	1030	0.051	53	25	0.0	0.1	3.681	A
2 - Barge Way	172	43	4	1173	0.146	172	205	0.1	0.2	3.593	A
3 - Access Road (N)	36	9	156	1351	0.027	36	20	0.0	0.0	2.737	A
4 - Private Road	120	30	62	1204	0.100	120	131	0.1	0.1	3.320	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	53	13	156	1030	0.051	53	25	0.1	0.1	3.681	A
2 - Barge Way	172	43	4	1173	0.146	172	205	0.2	0.2	3.593	A
3 - Access Road (N)	36	9	156	1351	0.027	36	20	0.0	0.0	2.737	A
4 - Private Road	120	30	62	1204	0.100	120	131	0.1	0.1	3.320	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	128	1044	0.041	43	21	0.1	0.0	3.598	A
2 - Barge Way	140	35	4	1174	0.119	140	167	0.2	0.1	3.483	A
3 - Access Road (N)	30	7	128	1373	0.022	30	16	0.0	0.0	2.679	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.233	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	36	9	107	1054	0.034	36	17	0.0	0.0	3.537	A
2 - Barge Way	117	29	3	1174	0.100	118	140	0.1	0.1	3.407	A
3 - Access Road (N)	25	6	107	1389	0.018	25	14	0.0	0.0	2.638	A
4 - Private Road	82	21	42	1217	0.067	82	90	0.1	0.1	3.174	A

# 2031 + K3 Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.30	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D23	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	47	100.000
2 - Barge Way		ONE HOUR	✓	218	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	25	0	22
	2 - Barge Way	59	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	96	0	100
	2 - Barge Way	51	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0



## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.07	5.07	0.1	A	43	65
2 - Barge Way	0.21	3.95	0.3	A	200	300
3 - Access Road (N)	0.02	2.83	0.0	A	18	28
4 - Private Road	0.12	4.70	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.046	35	60	0.0	0.0	4.861	A
2 - Barge Way	164	41	17	1159	0.142	163	88	0.0	0.2	3.615	A
3 - Access Road (N)	15	4	146	1350	0.011	15	34	0.0	0.0	2.696	A
4 - Private Road	69	17	61	882	0.079	69	100	0.0	0.1	4.426	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	84	769	0.055	42	72	0.0	0.1	4.950	A
2 - Barge Way	196	49	21	1156	0.170	196	105	0.2	0.2	3.749	A
3 - Access Road (N)	18	4	175	1326	0.014	18	41	0.0	0.0	2.752	A
4 - Private Road	83	21	73	876	0.094	83	120	0.1	0.1	4.538	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	52	13	102	761	0.068	52	88	0.1	0.1	5.074	A
2 - Barge Way	240	60	25	1152	0.208	240	129	0.2	0.3	3.945	A
3 - Access Road (N)	22	6	214	1293	0.017	22	51	0.0	0.0	2.831	A
4 - Private Road	101	25	89	868	0.117	101	147	0.1	0.1	4.696	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	52	13	102	761	0.068	52	88	0.1	0.1	5.074	A
2 - Barge Way	240	60	25	1152	0.208	240	129	0.3	0.3	3.947	A
3 - Access Road (N)	22	6	215	1293	0.017	22	51	0.0	0.0	2.832	A
4 - Private Road	101	25	89	868	0.117	101	148	0.1	0.1	4.696	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	84	769	0.055	42	72	0.1	0.1	4.953	A
2 - Barge Way	196	49	21	1156	0.170	196	105	0.3	0.2	3.751	A
3 - Access Road (N)	18	4	176	1325	0.014	18	41	0.0	0.0	2.755	A
4 - Private Road	83	21	73	876	0.094	83	121	0.1	0.1	4.539	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.046	35	60	0.1	0.0	4.867	A
2 - Barge Way	164	41	17	1159	0.142	164	88	0.2	0.2	3.619	A
3 - Access Road (N)	15	4	147	1349	0.011	15	35	0.0	0.0	2.698	A
4 - Private Road	69	17	61	882	0.079	69	101	0.1	0.1	4.431	A

# 2031 + K3 Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.56	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D24	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	75	100.000
2 - Barge Way		ONE HOUR	✓	158	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	71	0	4
	2 - Barge Way	23	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	49	0	25
	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	3.90	0.1	A	69	103
2 - Barge Way	0.15	3.66	0.2	A	145	217
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.33	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	56	19	0.0	0.1	3.697	A
2 - Barge Way	119	30	3	1158	0.103	118	160	0.0	0.1	3.462	A
3 - Access Road (N)	25	6	108	1387	0.018	25	13	0.0	0.0	2.642	A
4 - Private Road	82	21	44	1215	0.068	82	89	0.0	0.1	3.177	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	191	0.1	0.1	3.544	A
3 - Access Road (N)	30	7	129	1370	0.022	30	16	0.0	0.0	2.684	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.239	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	234	0.1	0.2	3.661	A
3 - Access Road (N)	36	9	158	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	235	0.2	0.2	3.661	A
3 - Access Road (N)	36	9	159	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	192	0.2	0.1	3.548	A
3 - Access Road (N)	30	7	130	1370	0.022	30	16	0.0	0.0	2.687	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.243	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	57	19	0.1	0.1	3.702	A
2 - Barge Way	119	30	3	1158	0.103	119	160	0.1	0.1	3.465	A
3 - Access Road (N)	25	6	109	1387	0.018	25	14	0.0	0.0	2.643	A
4 - Private Road	82	21	44	1215	0.068	82	90	0.1	0.1	3.180	A

# 2031 + K3 and WKN Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.42	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D27	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	56	100.000
2 - Barge Way		ONE HOUR	✓	227	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	34	0	22
	2 - Barge Way	68	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	97	0	100
	2 - Barge Way	57	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	5.15	0.1	A	51	77
2 - Barge Way	0.22	4.09	0.3	A	208	312
3 - Access Road (N)	0.02	2.86	0.0	A	18	28
4 - Private Road	0.12	4.74	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	70	774	0.054	42	67	0.0	0.1	4.914	A
2 - Barge Way	171	43	17	1137	0.150	170	94	0.0	0.2	3.721	A
3 - Access Road (N)	15	4	153	1342	0.011	15	34	0.0	0.0	2.712	A
4 - Private Road	69	17	67	877	0.079	69	100	0.0	0.1	4.452	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	50	13	84	768	0.066	50	80	0.1	0.1	5.014	A
2 - Barge Way	204	51	21	1134	0.180	204	113	0.2	0.2	3.869	A
3 - Access Road (N)	18	4	183	1317	0.014	18	41	0.0	0.0	2.771	A
4 - Private Road	83	21	81	870	0.095	83	120	0.1	0.1	4.570	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	62	15	102	760	0.081	62	98	0.1	0.1	5.155	A
2 - Barge Way	250	62	25	1130	0.221	250	139	0.2	0.3	4.086	A
3 - Access Road (N)	22	6	224	1282	0.017	22	51	0.0	0.0	2.856	A
4 - Private Road	101	25	99	861	0.118	101	147	0.1	0.1	4.739	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	62	15	102	760	0.081	62	98	0.1	0.1	5.155	A
2 - Barge Way	250	62	25	1130	0.221	250	139	0.3	0.3	4.088	A
3 - Access Road (N)	22	6	225	1282	0.017	22	51	0.0	0.0	2.856	A
4 - Private Road	101	25	99	861	0.118	101	148	0.1	0.1	4.739	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	50	13	84	768	0.066	50	80	0.1	0.1	5.018	A
2 - Barge Way	204	51	21	1134	0.180	204	113	0.3	0.2	3.871	A
3 - Access Road (N)	18	4	184	1316	0.014	18	41	0.0	0.0	2.772	A
4 - Private Road	83	21	81	870	0.095	83	121	0.1	0.1	4.572	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	70	774	0.054	42	67	0.1	0.1	4.918	A
2 - Barge Way	171	43	17	1137	0.150	171	95	0.2	0.2	3.728	A
3 - Access Road (N)	15	4	154	1342	0.011	15	35	0.0	0.0	2.715	A
4 - Private Road	69	17	68	877	0.079	69	101	0.1	0.1	4.459	A



# 2031 + K3 and WKN Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.64	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D28	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	94	100.000
2 - Barge Way		ONE HOUR	✓	163	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	90	0	4
	2 - Barge Way	28	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	48	0	25
	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.10	3.97	0.1	A	86	129
2 - Barge Way	0.16	3.74	0.2	A	150	224
3 - Access Road (N)	0.03	2.76	0.0	A	30	45
4 - Private Road	0.10	3.35	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	71	18	107	1035	0.068	70	22	0.0	0.1	3.734	A
2 - Barge Way	123	31	3	1142	0.108	122	174	0.0	0.1	3.529	A
3 - Access Road (N)	25	6	112	1383	0.018	25	13	0.0	0.0	2.650	A
4 - Private Road	82	21	47	1211	0.068	82	89	0.0	0.1	3.187	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	85	21	128	1025	0.082	84	27	0.1	0.1	3.828	A
2 - Barge Way	147	37	4	1141	0.128	146	208	0.1	0.1	3.618	A
3 - Access Road (N)	30	7	134	1365	0.022	30	16	0.0	0.0	2.694	A
4 - Private Road	98	24	57	1205	0.081	98	107	0.1	0.1	3.252	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	103	26	156	1011	0.102	103	33	0.1	0.1	3.966	A
2 - Barge Way	179	45	4	1141	0.157	179	255	0.1	0.2	3.743	A
3 - Access Road (N)	36	9	164	1342	0.027	36	20	0.0	0.0	2.756	A
4 - Private Road	120	30	69	1196	0.100	120	131	0.1	0.1	3.346	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	103	26	156	1011	0.102	103	33	0.1	0.1	3.966	A
2 - Barge Way	179	45	4	1141	0.157	179	255	0.2	0.2	3.743	A
3 - Access Road (N)	36	9	164	1342	0.027	36	20	0.0	0.0	2.757	A
4 - Private Road	120	30	69	1196	0.100	120	131	0.1	0.1	3.346	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	85	21	128	1025	0.082	85	27	0.1	0.1	3.829	A
2 - Barge Way	147	37	4	1141	0.128	147	209	0.2	0.1	3.622	A
3 - Access Road (N)	30	7	134	1365	0.022	30	16	0.0	0.0	2.697	A
4 - Private Road	98	24	57	1205	0.081	98	107	0.1	0.1	3.253	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	71	18	107	1034	0.068	71	23	0.1	0.1	3.738	A
2 - Barge Way	123	31	3	1142	0.108	123	175	0.1	0.1	3.533	A
3 - Access Road (N)	25	6	112	1382	0.018	25	14	0.0	0.0	2.651	A
4 - Private Road	82	21	47	1211	0.068	82	90	0.1	0.1	3.190	A

# 2031 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.30	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D29	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	47	100.000
2 - Barge Way		ONE HOUR	✓	218	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	25	0	22
	2 - Barge Way	59	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	96	0	100
	2 - Barge Way	51	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.07	5.07	0.1	A	43	65
2 - Barge Way	0.21	3.95	0.3	A	200	300
3 - Access Road (N)	0.02	2.83	0.0	A	18	28
4 - Private Road	0.12	4.70	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.046	35	60	0.0	0.0	4.861	A
2 - Barge Way	164	41	17	1159	0.142	163	88	0.0	0.2	3.615	A
3 - Access Road (N)	15	4	146	1350	0.011	15	34	0.0	0.0	2.696	A
4 - Private Road	69	17	61	882	0.079	69	100	0.0	0.1	4.426	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	84	769	0.055	42	72	0.0	0.1	4.950	A
2 - Barge Way	196	49	21	1156	0.170	196	105	0.2	0.2	3.749	A
3 - Access Road (N)	18	4	175	1326	0.014	18	41	0.0	0.0	2.752	A
4 - Private Road	83	21	73	876	0.094	83	120	0.1	0.1	4.538	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	52	13	102	761	0.068	52	88	0.1	0.1	5.074	A
2 - Barge Way	240	60	25	1152	0.208	240	129	0.2	0.3	3.945	A
3 - Access Road (N)	22	6	214	1293	0.017	22	51	0.0	0.0	2.831	A
4 - Private Road	101	25	89	868	0.117	101	147	0.1	0.1	4.696	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	52	13	102	761	0.068	52	88	0.1	0.1	5.074	A
2 - Barge Way	240	60	25	1152	0.208	240	129	0.3	0.3	3.947	A
3 - Access Road (N)	22	6	215	1293	0.017	22	51	0.0	0.0	2.832	A
4 - Private Road	101	25	89	868	0.117	101	148	0.1	0.1	4.696	A

**08:15 - 08:30**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	84	769	0.055	42	72	0.1	0.1	4.953	A
2 - Barge Way	196	49	21	1156	0.170	196	105	0.3	0.2	3.751	A
3 - Access Road (N)	18	4	176	1325	0.014	18	41	0.0	0.0	2.755	A
4 - Private Road	83	21	73	876	0.094	83	121	0.1	0.1	4.539	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.046	35	60	0.1	0.0	4.867	A
2 - Barge Way	164	41	17	1159	0.142	164	88	0.2	0.2	3.619	A
3 - Access Road (N)	15	4	147	1349	0.011	15	35	0.0	0.0	2.698	A
4 - Private Road	69	17	61	882	0.079	69	101	0.1	0.1	4.431	A

# 2031 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.56	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D30	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	75	100.000
2 - Barge Way		ONE HOUR	✓	158	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	71	0	4
	2 - Barge Way	23	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
From		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
	1 - Access (S)	0	49	0	25
	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	3.90	0.1	A	69	103
2 - Barge Way	0.15	3.66	0.2	A	145	217
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.33	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	56	19	0.0	0.1	3.697	A
2 - Barge Way	119	30	3	1158	0.103	118	160	0.0	0.1	3.462	A
3 - Access Road (N)	25	6	108	1387	0.018	25	13	0.0	0.0	2.642	A
4 - Private Road	82	21	44	1215	0.068	82	89	0.0	0.1	3.177	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	191	0.1	0.1	3.544	A
3 - Access Road (N)	30	7	129	1370	0.022	30	16	0.0	0.0	2.684	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.239	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	234	0.1	0.2	3.661	A
3 - Access Road (N)	36	9	158	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	235	0.2	0.2	3.661	A
3 - Access Road (N)	36	9	159	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A



17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	192	0.2	0.1	3.548	A
3 - Access Road (N)	30	7	130	1370	0.022	30	16	0.0	0.0	2.687	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.243	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	57	19	0.1	0.1	3.702	A
2 - Barge Way	119	30	3	1158	0.103	119	160	0.1	0.1	3.465	A
3 - Access Road (N)	25	6	109	1387	0.018	25	14	0.0	0.0	2.643	A
4 - Private Road	82	21	44	1215	0.068	82	90	0.1	0.1	3.180	A

# 2031 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.42	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D33	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	56	100.000
2 - Barge Way		ONE HOUR	✓	227	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	34	0	22
	2 - Barge Way	68	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

	To				
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	97	0	100
	2 - Barge Way	57	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	5.15	0.1	A	51	77
2 - Barge Way	0.22	4.09	0.3	A	208	312
3 - Access Road (N)	0.02	2.86	0.0	A	18	28
4 - Private Road	0.12	4.74	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	70	774	0.054	42	67	0.0	0.1	4.914	A
2 - Barge Way	171	43	17	1137	0.150	170	94	0.0	0.2	3.721	A
3 - Access Road (N)	15	4	153	1342	0.011	15	34	0.0	0.0	2.712	A
4 - Private Road	69	17	67	877	0.079	69	100	0.0	0.1	4.452	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	50	13	84	768	0.066	50	80	0.1	0.1	5.014	A
2 - Barge Way	204	51	21	1134	0.180	204	113	0.2	0.2	3.869	A
3 - Access Road (N)	18	4	183	1317	0.014	18	41	0.0	0.0	2.771	A
4 - Private Road	83	21	81	870	0.095	83	120	0.1	0.1	4.570	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	62	15	102	760	0.081	62	98	0.1	0.1	5.155	A
2 - Barge Way	250	62	25	1130	0.221	250	139	0.2	0.3	4.086	A
3 - Access Road (N)	22	6	224	1282	0.017	22	51	0.0	0.0	2.856	A
4 - Private Road	101	25	99	861	0.118	101	147	0.1	0.1	4.739	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	62	15	102	760	0.081	62	98	0.1	0.1	5.155	A
2 - Barge Way	250	62	25	1130	0.221	250	139	0.3	0.3	4.088	A
3 - Access Road (N)	22	6	225	1282	0.017	22	51	0.0	0.0	2.856	A
4 - Private Road	101	25	99	861	0.118	101	148	0.1	0.1	4.739	A

**08:15 - 08:30**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	50	13	84	768	0.066	50	80	0.1	0.1	5.018	A
2 - Barge Way	204	51	21	1134	0.180	204	113	0.3	0.2	3.871	A
3 - Access Road (N)	18	4	184	1316	0.014	18	41	0.0	0.0	2.772	A
4 - Private Road	83	21	81	870	0.095	83	121	0.1	0.1	4.572	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	70	774	0.054	42	67	0.1	0.1	4.918	A
2 - Barge Way	171	43	17	1137	0.150	171	95	0.2	0.2	3.728	A
3 - Access Road (N)	15	4	154	1342	0.011	15	35	0.0	0.0	2.715	A
4 - Private Road	69	17	68	877	0.079	69	101	0.1	0.1	4.459	A

# 2031 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.64	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D34	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	94	100.000
2 - Barge Way		ONE HOUR	✓	163	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	90	0	4
	2 - Barge Way	28	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From				
1 - Access (S)	0	48	0	25
2 - Barge Way	96	50	0	27
3 - Access Road (N)	0	0	0	0
4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.10	3.97	0.1	A	86	129
2 - Barge Way	0.16	3.74	0.2	A	150	224
3 - Access Road (N)	0.03	2.76	0.0	A	30	45
4 - Private Road	0.10	3.35	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	71	18	107	1035	0.068	70	22	0.0	0.1	3.734	A
2 - Barge Way	123	31	3	1142	0.108	122	174	0.0	0.1	3.529	A
3 - Access Road (N)	25	6	112	1383	0.018	25	13	0.0	0.0	2.650	A
4 - Private Road	82	21	47	1211	0.068	82	89	0.0	0.1	3.187	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	85	21	128	1025	0.082	84	27	0.1	0.1	3.828	A
2 - Barge Way	147	37	4	1141	0.128	146	208	0.1	0.1	3.618	A
3 - Access Road (N)	30	7	134	1365	0.022	30	16	0.0	0.0	2.694	A
4 - Private Road	98	24	57	1205	0.081	98	107	0.1	0.1	3.252	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	103	26	156	1011	0.102	103	33	0.1	0.1	3.966	A
2 - Barge Way	179	45	4	1141	0.157	179	255	0.1	0.2	3.743	A
3 - Access Road (N)	36	9	164	1342	0.027	36	20	0.0	0.0	2.756	A
4 - Private Road	120	30	69	1196	0.100	120	131	0.1	0.1	3.346	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	103	26	156	1011	0.102	103	33	0.1	0.1	3.966	A
2 - Barge Way	179	45	4	1141	0.157	179	255	0.2	0.2	3.743	A
3 - Access Road (N)	36	9	164	1342	0.027	36	20	0.0	0.0	2.757	A
4 - Private Road	120	30	69	1196	0.100	120	131	0.1	0.1	3.346	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	85	21	128	1025	0.082	85	27	0.1	0.1	3.829	A
2 - Barge Way	147	37	4	1141	0.128	147	209	0.2	0.1	3.622	A
3 - Access Road (N)	30	7	134	1365	0.022	30	16	0.0	0.0	2.697	A
4 - Private Road	98	24	57	1205	0.081	98	107	0.1	0.1	3.253	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	71	18	107	1034	0.068	71	23	0.1	0.1	3.738	A
2 - Barge Way	123	31	3	1142	0.108	123	175	0.1	0.1	3.533	A
3 - Access Road (N)	25	6	112	1382	0.018	25	14	0.0	0.0	2.651	A
4 - Private Road	82	21	47	1211	0.068	82	90	0.1	0.1	3.190	A

# Junctions 9

## ARCADY 9 - Roundabout Module

Version: 9.0.2.5947  
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**Filename:** BW\_SA.j9

**Path:** P:\JNY9290 - Kemsley K5\Transport\Arcady\WKN DCO\Barge Way\_Site Access

**Report generation date:** 18/03/2019 08:36:14

»2017, AM  
 »2017, PM  
 »2024, AM  
 »2024, PM  
 »2024 + Cumulative Development, AM  
 »2024 + Cumulative Development, PM  
 »2024 + K3 Operational, AM  
 »2024 + K3 Operational, PM  
 »2024 + WKN Operational, AM  
 »2024 + WKN Operational, PM  
 »2024 + K3 and WKN Operational, AM  
 »2024 + K3 and WKN Operational, PM  
 »2024 + K3 Operational + Cumulative Development, AM  
 »2024 + K3 Operational + Cumulative Development, PM  
 »2024 + WKN Operational + Cumulative Development, AM  
 »2024 + WKN Operational + Cumulative Development, PM  
 »2024 + K3 and WKN Operational + Cumulative Development, AM  
 »2024 + K3 and WKN Operational + Cumulative Development, PM  
 »2031, AM  
 »2031, PM  
 »2031 + Cumulative , AM  
 »2031 + Cumulative, PM  
 »2031 + K3 Operational, AM  
 »2031 + K3 Operational, PM  
 »2031 + WKN Operational, AM  
 »2031 + WKN Operational, PM  
 »2031 + K3 and WKN Operational, AM  
 »2031 + K3 and WKN Operational, PM  
 »2031 + K3 Operational + Cumulative Development, AM  
 »2031 + K3 Operational + Cumulative Development, PM  
 »2031 + WKN Operational + Cumulative Development, AM  
 »2031 + WKN Operational + Cumulative Development, PM  
 »2031 + K3 and WKN Operational + Cumulative Development, AM  
 »2031 + K3 and WKN Operational + Cumulative Development, PM

### Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
<b>2017</b>						
1 - Access (S)	0.0	4.82	0.04	0.1	3.61	0.05
2 - Barge Way	0.2	3.74	0.13	0.1	3.40	0.10
3 - Access Road (N)	0.0	0.00	0.00	0.0	0.00	0.00



4 - Private Road	0.1	4.82	0.09	0.1	3.10	0.09
<b>2024</b>						
1 - Access (S)	0.1	5.05	0.06	0.1	3.86	0.08
2 - Barge Way	0.3	3.91	0.21	0.2	3.62	0.15
3 - Access Road (N)	0.0	2.83	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.69	0.12	0.1	3.32	0.10
<b>2024 + Cumulative Development</b>						
1 - Access (S)	0.1	5.05	0.06	0.1	3.86	0.08
2 - Barge Way	0.3	3.91	0.21	0.2	3.62	0.15
3 - Access Road (N)	0.0	2.83	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.69	0.12	0.1	3.32	0.10
<b>2024 + K3 Operational</b>						
1 - Access (S)	0.1	5.07	0.07	0.1	3.90	0.08
2 - Barge Way	0.3	3.95	0.21	0.2	3.66	0.15
3 - Access Road (N)	0.0	2.83	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.70	0.12	0.1	3.33	0.10
<b>2024 + WKN Operational</b>						
1 - Access (S)	0.1	5.13	0.08	0.1	3.93	0.10
2 - Barge Way	0.3	4.06	0.22	0.2	3.69	0.15
3 - Access Road (N)	0.0	2.85	0.02	0.0	2.75	0.03
4 - Private Road	0.1	4.73	0.12	0.1	3.34	0.10
<b>2024 + K3 and WKN Operational</b>						
1 - Access (S)	0.1	5.15	0.08	0.1	3.97	0.10
2 - Barge Way	0.3	4.09	0.22	0.2	3.74	0.16
3 - Access Road (N)	0.0	2.86	0.02	0.0	2.76	0.03
4 - Private Road	0.1	4.74	0.12	0.1	3.35	0.10
<b>2024 + K3 Operational + Cumulative Development</b>						
1 - Access (S)	0.1	5.07	0.07	0.1	3.90	0.08
2 - Barge Way	0.3	3.95	0.21	0.2	3.66	0.15
3 - Access Road (N)	0.0	2.83	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.70	0.12	0.1	3.33	0.10
<b>2024 + WKN Operational + Cumulative Development</b>						
1 - Access (S)	0.1	5.13	0.08	0.1	3.93	0.10
2 - Barge Way	0.3	4.06	0.22	0.2	3.69	0.15
3 - Access Road (N)	0.0	2.85	0.02	0.0	2.75	0.03
4 - Private Road	0.1	4.73	0.12	0.1	3.34	0.10
<b>2024 + K3 and WKN Operational + Cumulative Development</b>						
1 - Access (S)	0.1	5.15	0.08	0.1	3.97	0.10
2 - Barge Way	0.3	4.09	0.22	0.2	3.74	0.16
3 - Access Road (N)	0.0	2.86	0.02	0.0	2.76	0.03
4 - Private Road	0.1	4.74	0.12	0.1	3.35	0.10
<b>2031</b>						
1 - Access (S)	0.1	5.05	0.06	0.1	3.86	0.08
2 - Barge Way	0.3	3.91	0.21	0.2	3.62	0.15
3 - Access Road (N)	0.0	2.83	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.69	0.12	0.1	3.32	0.10
<b>2031 + Cumulative</b>						
1 - Access (S)	0.1	5.05	0.06	0.1	3.86	0.08
2 - Barge Way	0.3	3.91	0.21	0.2	3.62	0.15
3 - Access Road (N)	0.0	2.83	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.69	0.12	0.1	3.32	0.10
<b>2031 + K3 Operational</b>						
1 - Access (S)	0.1	5.07	0.07	0.1	3.90	0.08
2 - Barge Way	0.3	3.95	0.21	0.2	3.66	0.15
3 - Access Road (N)	0.0	2.83	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.70	0.12	0.1	3.33	0.10
<b>2031 + WKN Operational</b>						
1 - Access (S)	0.1	5.13	0.08	0.1	3.93	0.10
2 - Barge Way	0.3	4.06	0.22	0.2	3.69	0.15
3 - Access Road (N)	0.0	2.85	0.02	0.0	2.75	0.03

	0.0	2.85	0.02	0.0	2.75	0.03
4 - Private Road	0.1	4.73	0.12	0.1	3.34	0.10
<b>2031 + K3 and WKN Operational</b>						
1 - Access (S)	0.1	5.15	0.08	0.1	3.97	0.10
2 - Barge Way	0.3	4.09	0.22	0.2	3.74	0.16
3 - Access Road (N)	0.0	2.86	0.02	0.0	2.76	0.03
4 - Private Road	0.1	4.74	0.12	0.1	3.35	0.10
<b>2031 + K3 Operational + Cumulative Development</b>						
1 - Access (S)	0.1	5.07	0.07	0.1	3.90	0.08
2 - Barge Way	0.3	3.95	0.21	0.2	3.66	0.15
3 - Access Road (N)	0.0	2.83	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.70	0.12	0.1	3.33	0.10
<b>2031 + WKN Operational + Cumulative Development</b>						
1 - Access (S)	0.1	5.13	0.08	0.1	3.93	0.10
2 - Barge Way	0.3	4.06	0.22	0.2	3.69	0.15
3 - Access Road (N)	0.0	2.85	0.02	0.0	2.75	0.03
4 - Private Road	0.1	4.73	0.12	0.1	3.34	0.10
<b>2031 + K3 and WKN Operational + Cumulative Development</b>						
1 - Access (S)	0.1	5.15	0.08	0.1	3.97	0.10
2 - Barge Way	0.3	4.09	0.22	0.2	3.74	0.16
3 - Access Road (N)	0.0	2.86	0.02	0.0	2.76	0.03
4 - Private Road	0.1	4.74	0.12	0.1	3.35	0.10

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

## File summary

### File Description

Title	(untitled)
Location	
Site number	
Date	08/11/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR\jack.clarke-williams
Description	

## Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

## Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

## Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓
D4	2024	PM	ONE	16:15	17:45	15	✓

			HOUR				
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D9	2024 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D10	2024 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D15	2024 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D16	2024 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓
D21	2031 + Cumulative	AM	ONE HOUR	07:15	08:45	15	✓
D22	2031 + Cumulative	PM	ONE HOUR	16:15	17:45	15	✓
D23	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D24	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D25	2031 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D26	2031 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D27	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D28	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D29	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D30	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D31	2031 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D32	2031 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D33	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D34	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

### Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

# 2017, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.28	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Name	Description
1	Access (S)	
2	Barge Way	
3	Access Road (N)	
4	Private Road	

### Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Access (S)	3.75	6.00	16.5	13.5	48.0	26.0	
2 - Barge Way	3.75	7.00	8.5	18.5	47.5	33.0	
3 - Access Road (N)	3.75	6.50	12.5	11.5	43.0	47.0	
4 - Private Road	3.60	6.50	8.0	13.5	45.0	18.0	

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Access (S)	0.594	1595
2 - Barge Way	0.587	1556
3 - Access Road (N)	0.560	1471
4 - Private Road	0.599	1525

The slope and intercept shown above include any corrections and adjustments.

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

## Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	31	100.000
2 - Barge Way		ONE HOUR	✓	136	100.000
3 - Access Road (N)		ONE HOUR	✓	0	100.000
4 - Private Road		ONE HOUR	✓	71	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	9	0	22
	2 - Barge Way	32	2	0	102
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	21	49	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	89	0	100
	2 - Barge Way	47	50	0	34
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	78	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.04	4.82	0.0	A	28	43
2 - Barge Way	0.13	3.74	0.2	A	125	187
3 - Access Road (N)	0.00	0.00	0.0	A	0	0
4 - Private Road	0.09	4.82	0.1	A	65	98

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	23	6	39	790	0.030	23	40	0.0	0.0	4.695	A
2 - Barge Way	102	26	17	1119	0.091	102	45	0.0	0.1	3.536	A
3 - Access Road (N)	0	0	119	1373	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	53	13	25	831	0.064	53	94	0.0	0.1	4.626	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	28	7	47	786	0.035	28	48	0.0	0.0	4.748	A
2 - Barge Way	122	31	21	1116	0.110	122	54	0.1	0.1	3.620	A
3 - Access Road (N)	0	0	143	1354	0.000	0	0	0.0	0.0	0.000	A

4 - Private Road	64	16	31	829	0.077	64	112	0.1	0.1	4.706	A
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## 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	34	9	57	780	0.044	34	58	0.0	0.0	4.824	A
2 - Barge Way	150	37	25	1112	0.135	150	66	0.1	0.2	3.738	A
3 - Access Road (N)	0	0	175	1328	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	78	20	37	825	0.095	78	138	0.1	0.1	4.817	A

## 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	34	9	57	780	0.044	34	58	0.0	0.0	4.824	A
2 - Barge Way	150	37	25	1112	0.135	150	66	0.2	0.2	3.738	A
3 - Access Road (N)	0	0	175	1328	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	78	20	37	825	0.095	78	138	0.1	0.1	4.817	A

## 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	28	7	47	786	0.035	28	48	0.0	0.0	4.749	A
2 - Barge Way	122	31	21	1116	0.110	122	54	0.2	0.1	3.621	A
3 - Access Road (N)	0	0	143	1354	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	64	16	31	829	0.077	64	112	0.1	0.1	4.709	A

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	23	6	39	790	0.030	23	40	0.0	0.0	4.696	A
2 - Barge Way	102	26	17	1119	0.091	102	45	0.1	0.1	3.540	A
3 - Access Road (N)	0	0	120	1373	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	53	13	26	831	0.064	54	94	0.1	0.1	4.629	A

# 2017, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.33	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	48	100.000
2 - Barge Way		ONE HOUR	✓	107	100.000
3 - Access Road (N)		ONE HOUR	✓	0	100.000
4 - Private Road		ONE HOUR	✓	103	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	44	0	4
	2 - Barge Way	8	2	0	97
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	2	101	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	46	0	25
	2 - Barge Way	88	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	18	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.05	3.61	0.1	A	44	66
2 - Barge Way	0.10	3.40	0.1	A	98	147
3 - Access Road (N)	0.00	0.00	0.0	A	0	0
4 - Private Road	0.09	3.10	0.1	A	95	142

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	36	9	77	1068	0.034	36	8	0.0	0.0	3.487	A
2 - Barge Way	81	20	3	1178	0.068	80	110	0.0	0.1	3.280	A
3 - Access Road (N)	0	0	83	1409	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	78	19	8	1279	0.061	77	76	0.0	0.1	2.996	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	93	1061	0.041	43	9	0.0	0.0	3.536	A
2 - Barge Way	96	24	4	1177	0.082	96	132	0.1	0.1	3.329	A
3 - Access Road (N)	0	0	100	1397	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	93	23	9	1277	0.073	93	91	0.1	0.1	3.038	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	53	13	113	1051	0.050	53	11	0.0	0.1	3.607	A
2 - Barge Way	118	29	4	1177	0.100	118	162	0.1	0.1	3.398	A
3 - Access Road (N)	0	0	122	1380	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	113	28	11	1275	0.089	113	111	0.1	0.1	3.097	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	53	13	113	1051	0.050	53	11	0.1	0.1	3.607	A
2 - Barge Way	118	29	4	1177	0.100	118	162	0.1	0.1	3.398	A
3 - Access Road (N)	0	0	122	1380	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	113	28	11	1275	0.089	113	111	0.1	0.1	3.097	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	93	1061	0.041	43	9	0.1	0.0	3.540	A
2 - Barge Way	96	24	4	1177	0.082	96	132	0.1	0.1	3.332	A
3 - Access Road (N)	0	0	100	1397	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	93	23	9	1277	0.073	93	91	0.1	0.1	3.041	A

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	93	1061	0.041	43	9	0.1	0.0	3.540	A
2 - Barge Way	96	24	4	1177	0.082	96	132	0.1	0.1	3.332	A
3 - Access Road (N)	0	0	100	1397	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	93	23	9	1277	0.073	93	91	0.1	0.1	3.041	A



Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	36	9	78	1068	0.034	36	8	0.0	0.0	3.490	A
2 - Barge Way	81	20	3	1178	0.068	81	111	0.1	0.1	3.281	A
3 - Access Road (N)	0	0	84	1409	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	78	19	8	1278	0.061	78	76	0.1	0.1	2.999	A

# 2024, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.27	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	44	100.000
2 - Barge Way		ONE HOUR	✓	216	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	22	0	22
	2 - Barge Way	57	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	96	0	100
	2 - Barge Way	49	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.06	5.05	0.1	A	40	61
2 - Barge Way	0.21	3.91	0.3	A	198	297
3 - Access Road (N)	0.02	2.83	0.0	A	18	28
4 - Private Road	0.12	4.69	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	33	8	70	775	0.043	33	58	0.0	0.0	4.850	A
2 - Barge Way	163	41	17	1165	0.140	162	85	0.0	0.2	3.587	A
3 - Access Road (N)	15	4	145	1351	0.011	15	34	0.0	0.0	2.693	A
4 - Private Road	69	17	59	883	0.078	69	100	0.0	0.1	4.420	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	40	10	84	769	0.051	40	70	0.0	0.1	4.935	A
2 - Barge Way	194	49	21	1162	0.167	194	102	0.2	0.2	3.718	A
3 - Access Road (N)	18	4	173	1328	0.014	18	41	0.0	0.0	2.748	A
4 - Private Road	83	21	71	877	0.094	83	120	0.1	0.1	4.530	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	102	761	0.064	48	86	0.1	0.1	5.054	A
2 - Barge Way	238	59	25	1158	0.205	238	125	0.2	0.3	3.910	A
3 - Access Road (N)	22	6	212	1296	0.017	22	51	0.0	0.0	2.825	A
4 - Private Road	101	25	87	869	0.117	101	147	0.1	0.1	4.686	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	102	761	0.064	48	86	0.1	0.1	5.054	A
2 - Barge Way	238	59	25	1158	0.205	238	126	0.3	0.3	3.911	A
3 - Access Road (N)	22	6	212	1295	0.017	22	51	0.0	0.0	2.826	A
4 - Private Road	101	25	87	869	0.117	101	148	0.1	0.1	4.686	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	40	10	84	769	0.051	40	70	0.1	0.1	4.938	A
2 - Barge Way	194	49	21	1162	0.167	194	103	0.3	0.2	3.723	A
3 - Access Road (N)	18	4	174	1327	0.014	18	41	0.0	0.0	2.750	A
4 - Private Road	83	21	71	877	0.094	83	121	0.1	0.1	4.532	A

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)											
2 - Barge Way											
3 - Access Road (N)											
4 - Private Road											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	33	8	70	775	0.043	33	59	0.1	0.0	4.853	A
<b>2 - Barge Way</b>	163	41	17	1165	0.140	163	86	0.2	0.2	3.591	A
<b>3 - Access Road (N)</b>	15	4	145	1351	0.011	15	35	0.0	0.0	2.696	A
<b>4 - Private Road</b>	69	17	60	883	0.078	69	101	0.1	0.1	4.427	A

# 2024, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.53	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	73	100.000
2 - Barge Way		ONE HOUR	✓	156	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	69	0	4
	2 - Barge Way	21	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	48	0	25
	2 - Barge Way	95	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	3.86	0.1	A	67	100
2 - Barge Way	0.15	3.62	0.2	A	143	215
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.32	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	55	14	107	1037	0.053	55	17	0.0	0.1	3.666	A
2 - Barge Way	117	29	3	1166	0.101	117	158	0.0	0.1	3.430	A
3 - Access Road (N)	25	6	106	1389	0.018	25	13	0.0	0.0	2.639	A
4 - Private Road	82	21	42	1216	0.067	82	89	0.0	0.1	3.173	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	66	16	128	1027	0.064	66	21	0.1	0.1	3.745	A
2 - Barge Way	140	35	4	1165	0.120	140	190	0.1	0.1	3.510	A
3 - Access Road (N)	30	7	128	1372	0.022	30	16	0.0	0.0	2.680	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.234	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	80	20	156	1013	0.079	80	25	0.1	0.1	3.859	A
2 - Barge Way	172	43	4	1165	0.147	172	232	0.1	0.2	3.623	A
3 - Access Road (N)	36	9	156	1350	0.027	36	20	0.0	0.0	2.738	A
4 - Private Road	120	30	62	1203	0.100	120	131	0.1	0.1	3.322	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	80	20	156	1013	0.079	80	25	0.1	0.1	3.860	A
2 - Barge Way	172	43	4	1165	0.147	172	232	0.2	0.2	3.623	A
3 - Access Road (N)	36	9	156	1350	0.027	36	20	0.0	0.0	2.739	A
4 - Private Road	120	30	62	1203	0.100	120	131	0.1	0.1	3.323	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	66	16	128	1027	0.064	66	21	0.1	0.1	3.749	A
2 - Barge Way	140	35	4	1165	0.120	140	190	0.2	0.1	3.514	A
3 - Access Road (N)	30	7	128	1372	0.022	30	16	0.0	0.0	2.680	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.237	A

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	66	16	128	1027	0.064	66	21	0.1	0.1	3.749	A
2 - Barge Way	140	35	4	1165	0.120	140	190	0.2	0.1	3.514	A
3 - Access Road (N)	30	7	128	1372	0.022	30	16	0.0	0.0	2.680	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.237	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	55	14	107	1036	0.053	55	17	0.1	0.1	3.670	A
2 - Barge Way	117	29	3	1166	0.101	118	159	0.1	0.1	3.436	A
3 - Access Road (N)	25	6	107	1388	0.018	25	14	0.0	0.0	2.641	A
4 - Private Road	82	21	42	1216	0.067	82	90	0.1	0.1	3.173	A

# 2024 + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.27	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	44	100.000
2 - Barge Way		ONE HOUR	✓	216	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	22	0	22
	2 - Barge Way	57	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	96	0	100
	2 - Barge Way	49	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0



## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.06	5.05	0.1	A	40	61
2 - Barge Way	0.21	3.91	0.3	A	198	297
3 - Access Road (N)	0.02	2.83	0.0	A	18	28
4 - Private Road	0.12	4.69	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	33	8	70	775	0.043	33	58	0.0	0.0	4.850	A
2 - Barge Way	163	41	17	1165	0.140	162	85	0.0	0.2	3.587	A
3 - Access Road (N)	15	4	145	1351	0.011	15	34	0.0	0.0	2.693	A
4 - Private Road	69	17	59	883	0.078	69	100	0.0	0.1	4.420	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	40	10	84	769	0.051	40	70	0.0	0.1	4.935	A
2 - Barge Way	194	49	21	1162	0.167	194	102	0.2	0.2	3.718	A
3 - Access Road (N)	18	4	173	1328	0.014	18	41	0.0	0.0	2.748	A
4 - Private Road	83	21	71	877	0.094	83	120	0.1	0.1	4.530	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	102	761	0.064	48	86	0.1	0.1	5.054	A
2 - Barge Way	238	59	25	1158	0.205	238	125	0.2	0.3	3.910	A
3 - Access Road (N)	22	6	212	1296	0.017	22	51	0.0	0.0	2.825	A
4 - Private Road	101	25	87	869	0.117	101	147	0.1	0.1	4.686	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	102	761	0.064	48	86	0.1	0.1	5.054	A
2 - Barge Way	238	59	25	1158	0.205	238	126	0.3	0.3	3.911	A
3 - Access Road (N)	22	6	212	1295	0.017	22	51	0.0	0.0	2.826	A
4 - Private Road	101	25	87	869	0.117	101	148	0.1	0.1	4.686	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	40	10	84	769	0.051	40	70	0.1	0.1	4.938	A
2 - Barge Way	194	49	21	1162	0.167	194	103	0.3	0.2	3.723	A
3 - Access Road (N)	18	4	174	1327	0.014	18	41	0.0	0.0	2.750	A
4 - Private Road	83	21	71	877	0.094	83	121	0.1	0.1	4.532	A

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	40	10	84	769	0.051	40	70	0.1	0.1	4.938	A
2 - Barge Way	194	49	21	1162	0.167	194	103	0.3	0.2	3.723	A
3 - Access Road (N)	18	4	174	1327	0.014	18	41	0.0	0.0	2.750	A
4 - Private Road	83	21	71	877	0.094	83	121	0.1	0.1	4.532	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	33	8	70	775	0.043	33	59	0.1	0.0	4.853	A
2 - Barge Way	163	41	17	1165	0.140	163	86	0.2	0.2	3.591	A
3 - Access Road (N)	15	4	145	1351	0.011	15	35	0.0	0.0	2.696	A
4 - Private Road	69	17	60	883	0.078	69	101	0.1	0.1	4.427	A

# 2024 + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.53	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	73	100.000
2 - Barge Way		ONE HOUR	✓	156	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	69	0	4
	2 - Barge Way	21	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	48	0	25
	2 - Barge Way	95	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	3.86	0.1	A	67	100
2 - Barge Way	0.15	3.62	0.2	A	143	215
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.32	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	55	14	107	1037	0.053	55	17	0.0	0.1	3.666	A
2 - Barge Way	117	29	3	1166	0.101	117	158	0.0	0.1	3.430	A
3 - Access Road (N)	25	6	106	1389	0.018	25	13	0.0	0.0	2.639	A
4 - Private Road	82	21	42	1216	0.067	82	89	0.0	0.1	3.173	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	66	16	128	1027	0.064	66	21	0.1	0.1	3.745	A
2 - Barge Way	140	35	4	1165	0.120	140	190	0.1	0.1	3.510	A
3 - Access Road (N)	30	7	128	1372	0.022	30	16	0.0	0.0	2.680	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.234	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	80	20	156	1013	0.079	80	25	0.1	0.1	3.859	A
2 - Barge Way	172	43	4	1165	0.147	172	232	0.1	0.2	3.623	A
3 - Access Road (N)	36	9	156	1350	0.027	36	20	0.0	0.0	2.738	A
4 - Private Road	120	30	62	1203	0.100	120	131	0.1	0.1	3.322	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	80	20	156	1013	0.079	80	25	0.1	0.1	3.860	A
2 - Barge Way	172	43	4	1165	0.147	172	232	0.2	0.2	3.623	A
3 - Access Road (N)	36	9	156	1350	0.027	36	20	0.0	0.0	2.739	A
4 - Private Road	120	30	62	1203	0.100	120	131	0.1	0.1	3.323	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	66	16	128	1027	0.064	66	21	0.1	0.1	3.749	A
2 - Barge Way	140	35	4	1165	0.120	140	190	0.2	0.1	3.514	A
3 - Access Road (N)	30	7	128	1372	0.022	30	16	0.0	0.0	2.680	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.237	A

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	66	16	128	1027	0.064	66	21	0.1	0.1	3.749	A
2 - Barge Way	140	35	4	1165	0.120	140	190	0.2	0.1	3.514	A
3 - Access Road (N)	30	7	128	1372	0.022	30	16	0.0	0.0	2.680	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.237	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	55	14	107	1036	0.053	55	17	0.1	0.1	3.670	A
2 - Barge Way	117	29	3	1166	0.101	118	159	0.1	0.1	3.436	A
3 - Access Road (N)	25	6	107	1388	0.018	25	14	0.0	0.0	2.641	A
4 - Private Road	82	21	42	1216	0.067	82	90	0.1	0.1	3.173	A

# 2024 + K3 Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.30	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	47	100.000
2 - Barge Way		ONE HOUR	✓	218	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	25	0	22
	2 - Barge Way	59	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	96	0	100
	2 - Barge Way	51	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.07	5.07	0.1	A	43	65
2 - Barge Way	0.21	3.95	0.3	A	200	300
3 - Access Road (N)	0.02	2.83	0.0	A	18	28
4 - Private Road	0.12	4.70	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.046	35	60	0.0	0.0	4.861	A
2 - Barge Way	164	41	17	1159	0.142	163	88	0.0	0.2	3.615	A
3 - Access Road (N)	15	4	146	1350	0.011	15	34	0.0	0.0	2.696	A
4 - Private Road	69	17	61	882	0.079	69	100	0.0	0.1	4.426	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	84	769	0.055	42	72	0.0	0.1	4.950	A
2 - Barge Way	196	49	21	1156	0.170	196	105	0.2	0.2	3.749	A
3 - Access Road (N)	18	4	175	1326	0.014	18	41	0.0	0.0	2.752	A
4 - Private Road	83	21	73	876	0.094	83	120	0.1	0.1	4.538	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	52	13	102	761	0.068	52	88	0.1	0.1	5.074	A
2 - Barge Way	240	60	25	1152	0.208	240	129	0.2	0.3	3.945	A
3 - Access Road (N)	22	6	214	1293	0.017	22	51	0.0	0.0	2.831	A
4 - Private Road	101	25	89	868	0.117	101	147	0.1	0.1	4.696	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	52	13	102	761	0.068	52	88	0.1	0.1	5.074	A
2 - Barge Way	240	60	25	1152	0.208	240	129	0.3	0.3	3.947	A
3 - Access Road (N)	22	6	215	1293	0.017	22	51	0.0	0.0	2.832	A
4 - Private Road	101	25	89	868	0.117	101	148	0.1	0.1	4.696	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	84	769	0.055	42	72	0.1	0.1	4.953	A
2 - Barge Way	196	49	21	1156	0.170	196	105	0.3	0.2	3.751	A
3 - Access Road (N)	18	4	176	1325	0.014	18	41	0.0	0.0	2.755	A
4 - Private Road	83	21	73	876	0.094	83	121	0.1	0.1	4.539	A

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	84	769	0.055	42	72	0.1	0.1	4.953	A
2 - Barge Way	196	49	21	1156	0.170	196	105	0.3	0.2	3.751	A
3 - Access Road (N)	18	4	176	1325	0.014	18	41	0.0	0.0	2.755	A
4 - Private Road	83	21	73	876	0.094	83	121	0.1	0.1	4.539	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.046	35	60	0.1	0.0	4.867	A
2 - Barge Way	164	41	17	1159	0.142	164	88	0.2	0.2	3.619	A
3 - Access Road (N)	15	4	147	1349	0.011	15	35	0.0	0.0	2.698	A
4 - Private Road	69	17	61	882	0.079	69	101	0.1	0.1	4.431	A



# 2024 + K3 Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.56	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	75	100.000
2 - Barge Way		ONE HOUR	✓	158	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	71	0	4
	2 - Barge Way	23	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	49	0	25
	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	3.90	0.1	A	69	103
2 - Barge Way	0.15	3.66	0.2	A	145	217
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.33	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	56	19	0.0	0.1	3.697	A
2 - Barge Way	119	30	3	1158	0.103	118	160	0.0	0.1	3.462	A
3 - Access Road (N)	25	6	108	1387	0.018	25	13	0.0	0.0	2.642	A
4 - Private Road	82	21	44	1215	0.068	82	89	0.0	0.1	3.177	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	191	0.1	0.1	3.544	A
3 - Access Road (N)	30	7	129	1370	0.022	30	16	0.0	0.0	2.684	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.239	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	234	0.1	0.2	3.661	A
3 - Access Road (N)	36	9	158	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	235	0.2	0.2	3.661	A
3 - Access Road (N)	36	9	159	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	192	0.2	0.1	3.548	A
3 - Access Road (N)	30	7	130	1370	0.022	30	16	0.0	0.0	2.687	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.243	A

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	192	0.2	0.1	3.548	A
3 - Access Road (N)	30	7	130	1370	0.022	30	16	0.0	0.0	2.687	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.243	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	57	19	0.1	0.1	3.702	A
2 - Barge Way	119	30	3	1158	0.103	119	160	0.1	0.1	3.465	A
3 - Access Road (N)	25	6	109	1387	0.018	25	14	0.0	0.0	2.643	A
4 - Private Road	82	21	44	1215	0.068	82	90	0.1	0.1	3.180	A

# 2024 + WKN Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.39	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2024 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	53	100.000
2 - Barge Way		ONE HOUR	✓	225	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	31	0	22
	2 - Barge Way	66	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	97	0	100
	2 - Barge Way	56	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	5.13	0.1	A	49	73
2 - Barge Way	0.22	4.06	0.3	A	206	310
3 - Access Road (N)	0.02	2.85	0.0	A	18	28
4 - Private Road	0.12	4.73	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	40	10	70	774	0.052	40	65	0.0	0.1	4.901	A
2 - Barge Way	169	42	17	1141	0.148	169	92	0.0	0.2	3.699	A
3 - Access Road (N)	15	4	151	1344	0.011	15	34	0.0	0.0	2.708	A
4 - Private Road	69	17	66	878	0.079	69	100	0.0	0.1	4.446	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	84	768	0.062	48	78	0.1	0.1	4.997	A
2 - Barge Way	202	51	21	1138	0.178	202	110	0.2	0.2	3.845	A
3 - Access Road (N)	18	4	181	1319	0.014	18	41	0.0	0.0	2.767	A
4 - Private Road	83	21	79	871	0.095	83	120	0.1	0.1	4.563	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	58	15	102	760	0.077	58	96	0.1	0.1	5.132	A
2 - Barge Way	248	62	25	1134	0.218	247	135	0.2	0.3	4.057	A
3 - Access Road (N)	22	6	222	1285	0.017	22	51	0.0	0.0	2.850	A
4 - Private Road	101	25	97	862	0.117	101	147	0.1	0.1	4.729	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	58	15	102	760	0.077	58	96	0.1	0.1	5.133	A
2 - Barge Way	248	62	25	1134	0.218	248	135	0.3	0.3	4.059	A
3 - Access Road (N)	22	6	222	1284	0.017	22	51	0.0	0.0	2.851	A
4 - Private Road	101	25	97	862	0.117	101	148	0.1	0.1	4.730	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	84	768	0.062	48	78	0.1	0.1	5.000	A
2 - Barge Way	202	51	21	1138	0.178	203	111	0.3	0.2	3.847	A
3 - Access Road (N)	18	4	182	1318	0.014	18	41	0.0	0.0	2.770	A
4 - Private Road	83	21	79	871	0.095	83	121	0.1	0.1	4.565	A

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)											
2 - Barge Way											
3 - Access Road (N)											
4 - Private Road											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	40	10	70	774	0.052	40	66	0.1	0.1	4.905	A
<b>2 - Barge Way</b>	169	42	17	1141	0.148	170	93	0.2	0.2	3.704	A
<b>3 - Access Road (N)</b>	15	4	152	1343	0.011	15	35	0.0	0.0	2.712	A
<b>4 - Private Road</b>	69	17	66	878	0.079	69	101	0.1	0.1	4.451	A

# 2024 + WKN Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.60	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2024 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	92	100.000
2 - Barge Way		ONE HOUR	✓	160	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	88	0	4
	2 - Barge Way	25	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	47	0	25
	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.10	3.93	0.1	A	84	127
2 - Barge Way	0.15	3.69	0.2	A	147	220
3 - Access Road (N)	0.03	2.75	0.0	A	30	45
4 - Private Road	0.10	3.34	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	69	17	107	1042	0.067	69	20	0.0	0.1	3.701	A
2 - Barge Way	120	30	3	1151	0.105	120	173	0.0	0.1	3.489	A
3 - Access Road (N)	25	6	109	1385	0.018	25	13	0.0	0.0	2.645	A
4 - Private Road	82	21	45	1213	0.068	82	89	0.0	0.1	3.181	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	128	1032	0.080	83	24	0.1	0.1	3.793	A
2 - Barge Way	144	36	4	1151	0.125	144	207	0.1	0.1	3.574	A
3 - Access Road (N)	30	7	131	1368	0.022	30	16	0.0	0.0	2.688	A
4 - Private Road	98	24	54	1207	0.081	98	107	0.1	0.1	3.244	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	101	25	156	1018	0.100	101	30	0.1	0.1	3.927	A
2 - Barge Way	176	44	4	1150	0.153	176	253	0.1	0.2	3.694	A
3 - Access Road (N)	36	9	161	1345	0.027	36	20	0.0	0.0	2.749	A
4 - Private Road	120	30	66	1199	0.100	120	131	0.1	0.1	3.336	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	101	25	156	1018	0.100	101	30	0.1	0.1	3.927	A
2 - Barge Way	176	44	4	1150	0.153	176	253	0.2	0.2	3.694	A
3 - Access Road (N)	36	9	161	1345	0.027	36	20	0.0	0.0	2.749	A
4 - Private Road	120	30	66	1199	0.100	120	131	0.1	0.1	3.336	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	128	1031	0.080	83	24	0.1	0.1	3.797	A
2 - Barge Way	144	36	4	1151	0.125	144	207	0.2	0.1	3.575	A
3 - Access Road (N)	30	7	131	1368	0.022	30	16	0.0	0.0	2.688	A
4 - Private Road	98	24	54	1207	0.081	98	107	0.1	0.1	3.245	A

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	128	1031	0.080	83	24	0.1	0.1	3.797	A
2 - Barge Way	144	36	4	1151	0.125	144	207	0.2	0.1	3.575	A
3 - Access Road (N)	30	7	131	1368	0.022	30	16	0.0	0.0	2.688	A
4 - Private Road	98	24	54	1207	0.081	98	107	0.1	0.1	3.245	A



Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	69	17	107	1041	0.067	69	20	0.1	0.1	3.705	A
<b>2 - Barge Way</b>	120	30	3	1151	0.105	121	173	0.1	0.1	3.495	A
<b>3 - Access Road (N)</b>	25	6	110	1385	0.018	25	14	0.0	0.0	2.648	A
<b>4 - Private Road</b>	82	21	45	1213	0.068	82	90	0.1	0.1	3.182	A

# 2024 + K3 and WKN Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.42	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	56	100.000
2 - Barge Way		ONE HOUR	✓	227	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	34	0	22
	2 - Barge Way	68	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	97	0	100
	2 - Barge Way	57	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	5.15	0.1	A	51	77
2 - Barge Way	0.22	4.09	0.3	A	208	312
3 - Access Road (N)	0.02	2.86	0.0	A	18	28
4 - Private Road	0.12	4.74	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	70	774	0.054	42	67	0.0	0.1	4.914	A
2 - Barge Way	171	43	17	1137	0.150	170	94	0.0	0.2	3.721	A
3 - Access Road (N)	15	4	153	1342	0.011	15	34	0.0	0.0	2.712	A
4 - Private Road	69	17	67	877	0.079	69	100	0.0	0.1	4.452	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	50	13	84	768	0.066	50	80	0.1	0.1	5.014	A
2 - Barge Way	204	51	21	1134	0.180	204	113	0.2	0.2	3.869	A
3 - Access Road (N)	18	4	183	1317	0.014	18	41	0.0	0.0	2.771	A
4 - Private Road	83	21	81	870	0.095	83	120	0.1	0.1	4.570	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	62	15	102	760	0.081	62	98	0.1	0.1	5.155	A
2 - Barge Way	250	62	25	1130	0.221	250	139	0.2	0.3	4.086	A
3 - Access Road (N)	22	6	224	1282	0.017	22	51	0.0	0.0	2.856	A
4 - Private Road	101	25	99	861	0.118	101	147	0.1	0.1	4.739	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	62	15	102	760	0.081	62	98	0.1	0.1	5.155	A
2 - Barge Way	250	62	25	1130	0.221	250	139	0.3	0.3	4.088	A
3 - Access Road (N)	22	6	225	1282	0.017	22	51	0.0	0.0	2.856	A
4 - Private Road	101	25	99	861	0.118	101	148	0.1	0.1	4.739	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	50	13	84	768	0.066	50	80	0.1	0.1	5.018	A
2 - Barge Way	204	51	21	1134	0.180	204	113	0.3	0.2	3.871	A
3 - Access Road (N)	18	4	184	1316	0.014	18	41	0.0	0.0	2.772	A
4 - Private Road	83	21	81	870	0.095	83	121	0.1	0.1	4.572	A

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	50	13	84	768	0.066	50	80	0.1	0.1	5.018	A
2 - Barge Way	204	51	21	1134	0.180	204	113	0.3	0.2	3.871	A
3 - Access Road (N)	18	4	184	1316	0.014	18	41	0.0	0.0	2.772	A
4 - Private Road	83	21	81	870	0.095	83	121	0.1	0.1	4.572	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	42	11	70	774	0.054	42	67	0.1	0.1	4.918	A
<b>2 - Barge Way</b>	171	43	17	1137	0.150	171	95	0.2	0.2	3.728	A
<b>3 - Access Road (N)</b>	15	4	154	1342	0.011	15	35	0.0	0.0	2.715	A
<b>4 - Private Road</b>	69	17	68	877	0.079	69	101	0.1	0.1	4.459	A

# 2024 + K3 and WKN Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.64	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	94	100.000
2 - Barge Way		ONE HOUR	✓	163	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	90	0	4
	2 - Barge Way	28	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	48	0	25
	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.10	3.97	0.1	A	86	129
2 - Barge Way	0.16	3.74	0.2	A	150	224
3 - Access Road (N)	0.03	2.76	0.0	A	30	45
4 - Private Road	0.10	3.35	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	71	18	107	1035	0.068	70	22	0.0	0.1	3.734	A
2 - Barge Way	123	31	3	1142	0.108	122	174	0.0	0.1	3.529	A
3 - Access Road (N)	25	6	112	1383	0.018	25	13	0.0	0.0	2.650	A
4 - Private Road	82	21	47	1211	0.068	82	89	0.0	0.1	3.187	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	85	21	128	1025	0.082	84	27	0.1	0.1	3.828	A
2 - Barge Way	147	37	4	1141	0.128	146	208	0.1	0.1	3.618	A
3 - Access Road (N)	30	7	134	1365	0.022	30	16	0.0	0.0	2.694	A
4 - Private Road	98	24	57	1205	0.081	98	107	0.1	0.1	3.252	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	103	26	156	1011	0.102	103	33	0.1	0.1	3.966	A
2 - Barge Way	179	45	4	1141	0.157	179	255	0.1	0.2	3.743	A
3 - Access Road (N)	36	9	164	1342	0.027	36	20	0.0	0.0	2.756	A
4 - Private Road	120	30	69	1196	0.100	120	131	0.1	0.1	3.346	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	103	26	156	1011	0.102	103	33	0.1	0.1	3.966	A
2 - Barge Way	179	45	4	1141	0.157	179	255	0.2	0.2	3.743	A
3 - Access Road (N)	36	9	164	1342	0.027	36	20	0.0	0.0	2.757	A
4 - Private Road	120	30	69	1196	0.100	120	131	0.1	0.1	3.346	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	85	21	128	1025	0.082	85	27	0.1	0.1	3.829	A
2 - Barge Way	147	37	4	1141	0.128	147	209	0.2	0.1	3.622	A
3 - Access Road (N)	30	7	134	1365	0.022	30	16	0.0	0.0	2.697	A
4 - Private Road	98	24	57	1205	0.081	98	107	0.1	0.1	3.253	A

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)											
2 - Barge Way											
3 - Access Road (N)											
4 - Private Road											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	71	18	107	1034	0.068	71	23	0.1	0.1	3.738	A
<b>2 - Barge Way</b>	123	31	3	1142	0.108	123	175	0.1	0.1	3.533	A
<b>3 - Access Road (N)</b>	25	6	112	1382	0.018	25	14	0.0	0.0	2.651	A
<b>4 - Private Road</b>	82	21	47	1211	0.068	82	90	0.1	0.1	3.190	A

# 2024 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.30	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	47	100.000
2 - Barge Way		ONE HOUR	✓	218	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	25	0	22
	2 - Barge Way	59	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
1 - Access (S)		0	96	0	100



From	2 - Barge Way	51	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.07	5.07	0.1	A	43	65
2 - Barge Way	0.21	3.95	0.3	A	200	300
3 - Access Road (N)	0.02	2.83	0.0	A	18	28
4 - Private Road	0.12	4.70	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.046	35	60	0.0	0.0	4.861	A
2 - Barge Way	164	41	17	1159	0.142	163	88	0.0	0.2	3.615	A
3 - Access Road (N)	15	4	146	1350	0.011	15	34	0.0	0.0	2.696	A
4 - Private Road	69	17	61	882	0.079	69	100	0.0	0.1	4.426	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	84	769	0.055	42	72	0.0	0.1	4.950	A
2 - Barge Way	196	49	21	1156	0.170	196	105	0.2	0.2	3.749	A
3 - Access Road (N)	18	4	175	1326	0.014	18	41	0.0	0.0	2.752	A
4 - Private Road	83	21	73	876	0.094	83	120	0.1	0.1	4.538	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	52	13	102	761	0.068	52	88	0.1	0.1	5.074	A
2 - Barge Way	240	60	25	1152	0.208	240	129	0.2	0.3	3.945	A
3 - Access Road (N)	22	6	214	1293	0.017	22	51	0.0	0.0	2.831	A
4 - Private Road	101	25	89	868	0.117	101	147	0.1	0.1	4.696	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	52	13	102	761	0.068	52	88	0.1	0.1	5.074	A
2 - Barge Way	240	60	25	1152	0.208	240	129	0.3	0.3	3.947	A
3 - Access Road (N)	22	6	215	1293	0.017	22	51	0.0	0.0	2.832	A
4 - Private Road	101	25	89	868	0.117	101	148	0.1	0.1	4.696	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	84	769	0.055	42	72	0.1	0.1	4.953	A
2 - Barge Way	196	49	21	1156	0.170	196	105	0.3	0.2	3.751	A

<b>3 - Access Road (N)</b>	18	4	176	1325	0.014	18	41	0.0	0.0	2.755	A
<b>4 - Private Road</b>	83	21	73	876	0.094	83	121	0.1	0.1	4.539	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	35	9	70	775	0.046	35	60	0.1	0.0	4.867	A
<b>2 - Barge Way</b>	164	41	17	1159	0.142	164	88	0.2	0.2	3.619	A
<b>3 - Access Road (N)</b>	15	4	147	1349	0.011	15	35	0.0	0.0	2.698	A
<b>4 - Private Road</b>	69	17	61	882	0.079	69	101	0.1	0.1	4.431	A

# 2024 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.56	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	75	100.000
2 - Barge Way		ONE HOUR	✓	158	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	71	0	4
	2 - Barge Way	23	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
	1 - Access (S)	0	49	0	25

From	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	3.90	0.1	A	69	103
2 - Barge Way	0.15	3.66	0.2	A	145	217
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.33	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	56	19	0.0	0.1	3.697	A
2 - Barge Way	119	30	3	1158	0.103	118	160	0.0	0.1	3.462	A
3 - Access Road (N)	25	6	108	1387	0.018	25	13	0.0	0.0	2.642	A
4 - Private Road	82	21	44	1215	0.068	82	89	0.0	0.1	3.177	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	191	0.1	0.1	3.544	A
3 - Access Road (N)	30	7	129	1370	0.022	30	16	0.0	0.0	2.684	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.239	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	234	0.1	0.2	3.661	A
3 - Access Road (N)	36	9	158	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	235	0.2	0.2	3.661	A
3 - Access Road (N)	36	9	159	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	192	0.2	0.1	3.548	A

<b>3 - Access Road (N)</b>	30	7	130	1370	0.022	30	16	0.0	0.0	2.687	A
<b>4 - Private Road</b>	98	24	52	1209	0.081	98	107	0.1	0.1	3.243	A

**17:30 - 17:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	56	14	107	1030	0.055	57	19	0.1	0.1	3.702	A
<b>2 - Barge Way</b>	119	30	3	1158	0.103	119	160	0.1	0.1	3.465	A
<b>3 - Access Road (N)</b>	25	6	109	1387	0.018	25	14	0.0	0.0	2.643	A
<b>4 - Private Road</b>	82	21	44	1215	0.068	82	90	0.1	0.1	3.180	A

# 2024 + WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.39	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2024 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	53	100.000
2 - Barge Way		ONE HOUR	✓	225	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	31	0	22
	2 - Barge Way	66	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
1 - Access (S)		0	97	0	100

From	2 - Barge Way	56	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	5.13	0.1	A	49	73
2 - Barge Way	0.22	4.06	0.3	A	206	310
3 - Access Road (N)	0.02	2.85	0.0	A	18	28
4 - Private Road	0.12	4.73	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	40	10	70	774	0.052	40	65	0.0	0.1	4.901	A
2 - Barge Way	169	42	17	1141	0.148	169	92	0.0	0.2	3.699	A
3 - Access Road (N)	15	4	151	1344	0.011	15	34	0.0	0.0	2.708	A
4 - Private Road	69	17	66	878	0.079	69	100	0.0	0.1	4.446	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	84	768	0.062	48	78	0.1	0.1	4.997	A
2 - Barge Way	202	51	21	1138	0.178	202	110	0.2	0.2	3.845	A
3 - Access Road (N)	18	4	181	1319	0.014	18	41	0.0	0.0	2.767	A
4 - Private Road	83	21	79	871	0.095	83	120	0.1	0.1	4.563	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	58	15	102	760	0.077	58	96	0.1	0.1	5.132	A
2 - Barge Way	248	62	25	1134	0.218	247	135	0.2	0.3	4.057	A
3 - Access Road (N)	22	6	222	1285	0.017	22	51	0.0	0.0	2.850	A
4 - Private Road	101	25	97	862	0.117	101	147	0.1	0.1	4.729	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	58	15	102	760	0.077	58	96	0.1	0.1	5.133	A
2 - Barge Way	248	62	25	1134	0.218	248	135	0.3	0.3	4.059	A
3 - Access Road (N)	22	6	222	1284	0.017	22	51	0.0	0.0	2.851	A
4 - Private Road	101	25	97	862	0.117	101	148	0.1	0.1	4.730	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	84	768	0.062	48	78	0.1	0.1	5.000	A
2 - Barge Way	202	51	21	1138	0.178	203	111	0.3	0.2	3.847	A

<b>3 - Access Road (N)</b>	18	4	182	1318	0.014	18	41	0.0	0.0	2.770	A
<b>4 - Private Road</b>	83	21	79	871	0.095	83	121	0.1	0.1	4.565	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	40	10	70	774	0.052	40	66	0.1	0.1	4.905	A
<b>2 - Barge Way</b>	169	42	17	1141	0.148	170	93	0.2	0.2	3.704	A
<b>3 - Access Road (N)</b>	15	4	152	1343	0.011	15	35	0.0	0.0	2.712	A
<b>4 - Private Road</b>	69	17	66	878	0.079	69	101	0.1	0.1	4.451	A



# 2024 + WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.60	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2024 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	92	100.000
2 - Barge Way		ONE HOUR	✓	160	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	88	0	4
	2 - Barge Way	25	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
1 - Access (S)		0	47	0	25

From	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.10	3.93	0.1	A	84	127
2 - Barge Way	0.15	3.69	0.2	A	147	220
3 - Access Road (N)	0.03	2.75	0.0	A	30	45
4 - Private Road	0.10	3.34	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	69	17	107	1042	0.067	69	20	0.0	0.1	3.701	A
2 - Barge Way	120	30	3	1151	0.105	120	173	0.0	0.1	3.489	A
3 - Access Road (N)	25	6	109	1385	0.018	25	13	0.0	0.0	2.645	A
4 - Private Road	82	21	45	1213	0.068	82	89	0.0	0.1	3.181	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	128	1032	0.080	83	24	0.1	0.1	3.793	A
2 - Barge Way	144	36	4	1151	0.125	144	207	0.1	0.1	3.574	A
3 - Access Road (N)	30	7	131	1368	0.022	30	16	0.0	0.0	2.688	A
4 - Private Road	98	24	54	1207	0.081	98	107	0.1	0.1	3.244	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	101	25	156	1018	0.100	101	30	0.1	0.1	3.927	A
2 - Barge Way	176	44	4	1150	0.153	176	253	0.1	0.2	3.694	A
3 - Access Road (N)	36	9	161	1345	0.027	36	20	0.0	0.0	2.749	A
4 - Private Road	120	30	66	1199	0.100	120	131	0.1	0.1	3.336	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	101	25	156	1018	0.100	101	30	0.1	0.1	3.927	A
2 - Barge Way	176	44	4	1150	0.153	176	253	0.2	0.2	3.694	A
3 - Access Road (N)	36	9	161	1345	0.027	36	20	0.0	0.0	2.749	A
4 - Private Road	120	30	66	1199	0.100	120	131	0.1	0.1	3.336	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	128	1031	0.080	83	24	0.1	0.1	3.797	A
2 - Barge Way	144	36	4	1151	0.125	144	207	0.2	0.1	3.575	A

<b>3 - Access Road (N)</b>	30	7	131	1368	0.022	30	16	0.0	0.0	2.688	A
<b>4 - Private Road</b>	98	24	54	1207	0.081	98	107	0.1	0.1	3.245	A

**17:30 - 17:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	69	17	107	1041	0.067	69	20	0.1	0.1	3.705	A
<b>2 - Barge Way</b>	120	30	3	1151	0.105	121	173	0.1	0.1	3.495	A
<b>3 - Access Road (N)</b>	25	6	110	1385	0.018	25	14	0.0	0.0	2.648	A
<b>4 - Private Road</b>	82	21	45	1213	0.068	82	90	0.1	0.1	3.182	A

# 2024 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.42	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	56	100.000
2 - Barge Way		ONE HOUR	✓	227	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	34	0	22
	2 - Barge Way	68	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road

From	1 - Access (S)	0	97	0	100
	2 - Barge Way	57	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	5.15	0.1	A	51	77
2 - Barge Way	0.22	4.09	0.3	A	208	312
3 - Access Road (N)	0.02	2.86	0.0	A	18	28
4 - Private Road	0.12	4.74	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	70	774	0.054	42	67	0.0	0.1	4.914	A
2 - Barge Way	171	43	17	1137	0.150	170	94	0.0	0.2	3.721	A
3 - Access Road (N)	15	4	153	1342	0.011	15	34	0.0	0.0	2.712	A
4 - Private Road	69	17	67	877	0.079	69	100	0.0	0.1	4.452	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	50	13	84	768	0.066	50	80	0.1	0.1	5.014	A
2 - Barge Way	204	51	21	1134	0.180	204	113	0.2	0.2	3.869	A
3 - Access Road (N)	18	4	183	1317	0.014	18	41	0.0	0.0	2.771	A
4 - Private Road	83	21	81	870	0.095	83	120	0.1	0.1	4.570	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	62	15	102	760	0.081	62	98	0.1	0.1	5.155	A
2 - Barge Way	250	62	25	1130	0.221	250	139	0.2	0.3	4.086	A
3 - Access Road (N)	22	6	224	1282	0.017	22	51	0.0	0.0	2.856	A
4 - Private Road	101	25	99	861	0.118	101	147	0.1	0.1	4.739	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	62	15	102	760	0.081	62	98	0.1	0.1	5.155	A
2 - Barge Way	250	62	25	1130	0.221	250	139	0.3	0.3	4.088	A
3 - Access Road (N)	22	6	225	1282	0.017	22	51	0.0	0.0	2.856	A
4 - Private Road	101	25	99	861	0.118	101	148	0.1	0.1	4.739	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	50	13	84	768	0.066	50	80	0.1	0.1	5.018	A

<b>2 - Barge Way</b>	204	51	21	1134	0.180	204	113	0.3	0.2	3.871	A
<b>3 - Access Road (N)</b>	18	4	184	1316	0.014	18	41	0.0	0.0	2.772	A
<b>4 - Private Road</b>	83	21	81	870	0.095	83	121	0.1	0.1	4.572	A

**08:30 - 08:45**

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>1 - Access (S)</b>	42	11	70	774	0.054	42	67	0.1	0.1	4.918	A
<b>2 - Barge Way</b>	171	43	17	1137	0.150	171	95	0.2	0.2	3.728	A
<b>3 - Access Road (N)</b>	15	4	154	1342	0.011	15	35	0.0	0.0	2.715	A
<b>4 - Private Road</b>	69	17	68	877	0.079	69	101	0.1	0.1	4.459	A

# 2024 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.64	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	94	100.000
2 - Barge Way		ONE HOUR	✓	163	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	90	0	4
	2 - Barge Way	28	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road

From	1 - Access (S)	0	48	0	25
	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.10	3.97	0.1	A	86	129
2 - Barge Way	0.16	3.74	0.2	A	150	224
3 - Access Road (N)	0.03	2.76	0.0	A	30	45
4 - Private Road	0.10	3.35	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	71	18	107	1035	0.068	70	22	0.0	0.1	3.734	A
2 - Barge Way	123	31	3	1142	0.108	122	174	0.0	0.1	3.529	A
3 - Access Road (N)	25	6	112	1383	0.018	25	13	0.0	0.0	2.650	A
4 - Private Road	82	21	47	1211	0.068	82	89	0.0	0.1	3.187	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	85	21	128	1025	0.082	84	27	0.1	0.1	3.828	A
2 - Barge Way	147	37	4	1141	0.128	146	208	0.1	0.1	3.618	A
3 - Access Road (N)	30	7	134	1365	0.022	30	16	0.0	0.0	2.694	A
4 - Private Road	98	24	57	1205	0.081	98	107	0.1	0.1	3.252	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	103	26	156	1011	0.102	103	33	0.1	0.1	3.966	A
2 - Barge Way	179	45	4	1141	0.157	179	255	0.1	0.2	3.743	A
3 - Access Road (N)	36	9	164	1342	0.027	36	20	0.0	0.0	2.756	A
4 - Private Road	120	30	69	1196	0.100	120	131	0.1	0.1	3.346	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	103	26	156	1011	0.102	103	33	0.1	0.1	3.966	A
2 - Barge Way	179	45	4	1141	0.157	179	255	0.2	0.2	3.743	A
3 - Access Road (N)	36	9	164	1342	0.027	36	20	0.0	0.0	2.757	A
4 - Private Road	120	30	69	1196	0.100	120	131	0.1	0.1	3.346	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	85	21	128	1025	0.082	85	27	0.1	0.1	3.829	A



<b>2 - Barge Way</b>	147	37	4	1141	0.128	147	209	0.2	0.1	3.622	A
<b>3 - Access Road (N)</b>	30	7	134	1365	0.022	30	16	0.0	0.0	2.697	A
<b>4 - Private Road</b>	98	24	57	1205	0.081	98	107	0.1	0.1	3.253	A

**17:30 - 17:45**

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>1 - Access (S)</b>	71	18	107	1034	0.068	71	23	0.1	0.1	3.738	A
<b>2 - Barge Way</b>	123	31	3	1142	0.108	123	175	0.1	0.1	3.533	A
<b>3 - Access Road (N)</b>	25	6	112	1382	0.018	25	14	0.0	0.0	2.651	A
<b>4 - Private Road</b>	82	21	47	1211	0.068	82	90	0.1	0.1	3.190	A

# 2031, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.27	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	44	100.000
2 - Barge Way		ONE HOUR	✓	216	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	22	0	22
	2 - Barge Way	57	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	96	0	100
	2 - Barge Way	49	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.06	5.05	0.1	A	40	61
2 - Barge Way	0.21	3.91	0.3	A	198	297
3 - Access Road (N)	0.02	2.83	0.0	A	18	28
4 - Private Road	0.12	4.69	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	33	8	70	775	0.043	33	58	0.0	0.0	4.850	A
2 - Barge Way	163	41	17	1165	0.140	162	85	0.0	0.2	3.587	A
3 - Access Road (N)	15	4	145	1351	0.011	15	34	0.0	0.0	2.693	A
4 - Private Road	69	17	59	883	0.078	69	100	0.0	0.1	4.420	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	40	10	84	769	0.051	40	70	0.0	0.1	4.935	A
2 - Barge Way	194	49	21	1162	0.167	194	102	0.2	0.2	3.718	A
3 - Access Road (N)	18	4	173	1328	0.014	18	41	0.0	0.0	2.748	A
4 - Private Road	83	21	71	877	0.094	83	120	0.1	0.1	4.530	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	102	761	0.064	48	86	0.1	0.1	5.054	A
2 - Barge Way	238	59	25	1158	0.205	238	125	0.2	0.3	3.910	A
3 - Access Road (N)	22	6	212	1296	0.017	22	51	0.0	0.0	2.825	A
4 - Private Road	101	25	87	869	0.117	101	147	0.1	0.1	4.686	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	102	761	0.064	48	86	0.1	0.1	5.054	A
2 - Barge Way	238	59	25	1158	0.205	238	126	0.3	0.3	3.911	A
3 - Access Road (N)	22	6	212	1295	0.017	22	51	0.0	0.0	2.826	A
4 - Private Road	101	25	87	869	0.117	101	148	0.1	0.1	4.686	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	40	10	84	769	0.051	40	70	0.1	0.1	4.938	A
2 - Barge Way	194	49	21	1162	0.167	194	103	0.3	0.2	3.723	A
3 - Access Road (N)	18	4	174	1327	0.014	18	41	0.0	0.0	2.750	A
4 - Private Road	83	21	71	877	0.094	83	121	0.1	0.1	4.532	A

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)											
2 - Barge Way											
3 - Access Road (N)											
4 - Private Road											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	33	8	70	775	0.043	33	59	0.1	0.0	4.853	A
2 - Barge Way	163	41	17	1165	0.140	163	86	0.2	0.2	3.591	A
3 - Access Road (N)	15	4	145	1351	0.011	15	35	0.0	0.0	2.696	A
4 - Private Road	69	17	60	883	0.078	69	101	0.1	0.1	4.427	A

# 2031, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.53	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	73	100.000
2 - Barge Way		ONE HOUR	✓	156	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	69	0	4
	2 - Barge Way	21	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	48	0	25
	2 - Barge Way	95	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	3.86	0.1	A	67	100
2 - Barge Way	0.15	3.62	0.2	A	143	215
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.32	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	55	14	107	1037	0.053	55	17	0.0	0.1	3.666	A
2 - Barge Way	117	29	3	1166	0.101	117	158	0.0	0.1	3.430	A
3 - Access Road (N)	25	6	106	1389	0.018	25	13	0.0	0.0	2.639	A
4 - Private Road	82	21	42	1216	0.067	82	89	0.0	0.1	3.173	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	66	16	128	1027	0.064	66	21	0.1	0.1	3.745	A
2 - Barge Way	140	35	4	1165	0.120	140	190	0.1	0.1	3.510	A
3 - Access Road (N)	30	7	128	1372	0.022	30	16	0.0	0.0	2.680	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.234	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	80	20	156	1013	0.079	80	25	0.1	0.1	3.859	A
2 - Barge Way	172	43	4	1165	0.147	172	232	0.1	0.2	3.623	A
3 - Access Road (N)	36	9	156	1350	0.027	36	20	0.0	0.0	2.738	A
4 - Private Road	120	30	62	1203	0.100	120	131	0.1	0.1	3.322	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	80	20	156	1013	0.079	80	25	0.1	0.1	3.860	A
2 - Barge Way	172	43	4	1165	0.147	172	232	0.2	0.2	3.623	A
3 - Access Road (N)	36	9	156	1350	0.027	36	20	0.0	0.0	2.739	A
4 - Private Road	120	30	62	1203	0.100	120	131	0.1	0.1	3.323	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	66	16	128	1027	0.064	66	21	0.1	0.1	3.749	A
2 - Barge Way	140	35	4	1165	0.120	140	190	0.2	0.1	3.514	A
3 - Access Road (N)	30	7	128	1372	0.022	30	16	0.0	0.0	2.680	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.237	A

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	66	16	128	1027	0.064	66	21	0.1	0.1	3.749	A
2 - Barge Way	140	35	4	1165	0.120	140	190	0.2	0.1	3.514	A
3 - Access Road (N)	30	7	128	1372	0.022	30	16	0.0	0.0	2.680	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.237	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	55	14	107	1036	0.053	55	17	0.1	0.1	3.670	A
<b>2 - Barge Way</b>	117	29	3	1166	0.101	118	159	0.1	0.1	3.436	A
<b>3 - Access Road (N)</b>	25	6	107	1388	0.018	25	14	0.0	0.0	2.641	A
<b>4 - Private Road</b>	82	21	42	1216	0.067	82	90	0.1	0.1	3.173	A

# 2031 + Cumulative , AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.27	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D21	2031 + Cumulative	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	44	100.000
2 - Barge Way		ONE HOUR	✓	216	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	22	0	22
	2 - Barge Way	57	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	96	0	100
	2 - Barge Way	49	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0



## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.06	5.05	0.1	A	40	61
2 - Barge Way	0.21	3.91	0.3	A	198	297
3 - Access Road (N)	0.02	2.83	0.0	A	18	28
4 - Private Road	0.12	4.69	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	33	8	70	775	0.043	33	58	0.0	0.0	4.850	A
2 - Barge Way	163	41	17	1165	0.140	162	85	0.0	0.2	3.587	A
3 - Access Road (N)	15	4	145	1351	0.011	15	34	0.0	0.0	2.693	A
4 - Private Road	69	17	59	883	0.078	69	100	0.0	0.1	4.420	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	40	10	84	769	0.051	40	70	0.0	0.1	4.935	A
2 - Barge Way	194	49	21	1162	0.167	194	102	0.2	0.2	3.718	A
3 - Access Road (N)	18	4	173	1328	0.014	18	41	0.0	0.0	2.748	A
4 - Private Road	83	21	71	877	0.094	83	120	0.1	0.1	4.530	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	102	761	0.064	48	86	0.1	0.1	5.054	A
2 - Barge Way	238	59	25	1158	0.205	238	125	0.2	0.3	3.910	A
3 - Access Road (N)	22	6	212	1296	0.017	22	51	0.0	0.0	2.825	A
4 - Private Road	101	25	87	869	0.117	101	147	0.1	0.1	4.686	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	102	761	0.064	48	86	0.1	0.1	5.054	A
2 - Barge Way	238	59	25	1158	0.205	238	126	0.3	0.3	3.911	A
3 - Access Road (N)	22	6	212	1295	0.017	22	51	0.0	0.0	2.826	A
4 - Private Road	101	25	87	869	0.117	101	148	0.1	0.1	4.686	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	40	10	84	769	0.051	40	70	0.1	0.1	4.938	A
2 - Barge Way	194	49	21	1162	0.167	194	103	0.3	0.2	3.723	A
3 - Access Road (N)	18	4	174	1327	0.014	18	41	0.0	0.0	2.750	A
4 - Private Road	83	21	71	877	0.094	83	121	0.1	0.1	4.532	A

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	40	10	84	769	0.051	40	70	0.1	0.1	4.938	A
2 - Barge Way	194	49	21	1162	0.167	194	103	0.3	0.2	3.723	A
3 - Access Road (N)	18	4	174	1327	0.014	18	41	0.0	0.0	2.750	A
4 - Private Road	83	21	71	877	0.094	83	121	0.1	0.1	4.532	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	33	8	70	775	0.043	33	59	0.1	0.0	4.853	A
2 - Barge Way	163	41	17	1165	0.140	163	86	0.2	0.2	3.591	A
3 - Access Road (N)	15	4	145	1351	0.011	15	35	0.0	0.0	2.696	A
4 - Private Road	69	17	60	883	0.078	69	101	0.1	0.1	4.427	A

# 2031 + Cumulative, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.53	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D22	2031 + Cumulative	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	73	100.000
2 - Barge Way		ONE HOUR	✓	156	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	69	0	4
	2 - Barge Way	21	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	48	0	25
	2 - Barge Way	95	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	3.86	0.1	A	67	100
2 - Barge Way	0.15	3.62	0.2	A	143	215
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.32	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	55	14	107	1037	0.053	55	17	0.0	0.1	3.666	A
2 - Barge Way	117	29	3	1166	0.101	117	158	0.0	0.1	3.430	A
3 - Access Road (N)	25	6	106	1389	0.018	25	13	0.0	0.0	2.639	A
4 - Private Road	82	21	42	1216	0.067	82	89	0.0	0.1	3.173	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	66	16	128	1027	0.064	66	21	0.1	0.1	3.745	A
2 - Barge Way	140	35	4	1165	0.120	140	190	0.1	0.1	3.510	A
3 - Access Road (N)	30	7	128	1372	0.022	30	16	0.0	0.0	2.680	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.234	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	80	20	156	1013	0.079	80	25	0.1	0.1	3.859	A
2 - Barge Way	172	43	4	1165	0.147	172	232	0.1	0.2	3.623	A
3 - Access Road (N)	36	9	156	1350	0.027	36	20	0.0	0.0	2.738	A
4 - Private Road	120	30	62	1203	0.100	120	131	0.1	0.1	3.322	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	80	20	156	1013	0.079	80	25	0.1	0.1	3.860	A
2 - Barge Way	172	43	4	1165	0.147	172	232	0.2	0.2	3.623	A
3 - Access Road (N)	36	9	156	1350	0.027	36	20	0.0	0.0	2.739	A
4 - Private Road	120	30	62	1203	0.100	120	131	0.1	0.1	3.323	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	66	16	128	1027	0.064	66	21	0.1	0.1	3.749	A
2 - Barge Way	140	35	4	1165	0.120	140	190	0.2	0.1	3.514	A
3 - Access Road (N)	30	7	128	1372	0.022	30	16	0.0	0.0	2.680	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.237	A

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	66	16	128	1027	0.064	66	21	0.1	0.1	3.749	A
2 - Barge Way	140	35	4	1165	0.120	140	190	0.2	0.1	3.514	A
3 - Access Road (N)	30	7	128	1372	0.022	30	16	0.0	0.0	2.680	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.237	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	55	14	107	1036	0.053	55	17	0.1	0.1	3.670	A
2 - Barge Way	117	29	3	1166	0.101	118	159	0.1	0.1	3.436	A
3 - Access Road (N)	25	6	107	1388	0.018	25	14	0.0	0.0	2.641	A
4 - Private Road	82	21	42	1216	0.067	82	90	0.1	0.1	3.173	A

# 2031 + K3 Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.30	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D23	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	47	100.000
2 - Barge Way		ONE HOUR	✓	218	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	25	0	22
	2 - Barge Way	59	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	96	0	100
	2 - Barge Way	51	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.07	5.07	0.1	A	43	65
2 - Barge Way	0.21	3.95	0.3	A	200	300
3 - Access Road (N)	0.02	2.83	0.0	A	18	28
4 - Private Road	0.12	4.70	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.046	35	60	0.0	0.0	4.861	A
2 - Barge Way	164	41	17	1159	0.142	163	88	0.0	0.2	3.615	A
3 - Access Road (N)	15	4	146	1350	0.011	15	34	0.0	0.0	2.696	A
4 - Private Road	69	17	61	882	0.079	69	100	0.0	0.1	4.426	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	84	769	0.055	42	72	0.0	0.1	4.950	A
2 - Barge Way	196	49	21	1156	0.170	196	105	0.2	0.2	3.749	A
3 - Access Road (N)	18	4	175	1326	0.014	18	41	0.0	0.0	2.752	A
4 - Private Road	83	21	73	876	0.094	83	120	0.1	0.1	4.538	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	52	13	102	761	0.068	52	88	0.1	0.1	5.074	A
2 - Barge Way	240	60	25	1152	0.208	240	129	0.2	0.3	3.945	A
3 - Access Road (N)	22	6	214	1293	0.017	22	51	0.0	0.0	2.831	A
4 - Private Road	101	25	89	868	0.117	101	147	0.1	0.1	4.696	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	52	13	102	761	0.068	52	88	0.1	0.1	5.074	A
2 - Barge Way	240	60	25	1152	0.208	240	129	0.3	0.3	3.947	A
3 - Access Road (N)	22	6	215	1293	0.017	22	51	0.0	0.0	2.832	A
4 - Private Road	101	25	89	868	0.117	101	148	0.1	0.1	4.696	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	84	769	0.055	42	72	0.1	0.1	4.953	A
2 - Barge Way	196	49	21	1156	0.170	196	105	0.3	0.2	3.751	A
3 - Access Road (N)	18	4	176	1325	0.014	18	41	0.0	0.0	2.755	A
4 - Private Road	83	21	73	876	0.094	83	121	0.1	0.1	4.539	A

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	84	769	0.055	42	72	0.1	0.1	4.953	A
2 - Barge Way	196	49	21	1156	0.170	196	105	0.3	0.2	3.751	A
3 - Access Road (N)	18	4	176	1325	0.014	18	41	0.0	0.0	2.755	A
4 - Private Road	83	21	73	876	0.094	83	121	0.1	0.1	4.539	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.046	35	60	0.1	0.0	4.867	A
2 - Barge Way	164	41	17	1159	0.142	164	88	0.2	0.2	3.619	A
3 - Access Road (N)	15	4	147	1349	0.011	15	35	0.0	0.0	2.698	A
4 - Private Road	69	17	61	882	0.079	69	101	0.1	0.1	4.431	A



# 2031 + K3 Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.56	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D24	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	75	100.000
2 - Barge Way		ONE HOUR	✓	158	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	71	0	4
	2 - Barge Way	23	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	49	0	25
	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	3.90	0.1	A	69	103
2 - Barge Way	0.15	3.66	0.2	A	145	217
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.33	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	56	19	0.0	0.1	3.697	A
2 - Barge Way	119	30	3	1158	0.103	118	160	0.0	0.1	3.462	A
3 - Access Road (N)	25	6	108	1387	0.018	25	13	0.0	0.0	2.642	A
4 - Private Road	82	21	44	1215	0.068	82	89	0.0	0.1	3.177	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	191	0.1	0.1	3.544	A
3 - Access Road (N)	30	7	129	1370	0.022	30	16	0.0	0.0	2.684	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.239	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	234	0.1	0.2	3.661	A
3 - Access Road (N)	36	9	158	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	235	0.2	0.2	3.661	A
3 - Access Road (N)	36	9	159	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	192	0.2	0.1	3.548	A
3 - Access Road (N)	30	7	130	1370	0.022	30	16	0.0	0.0	2.687	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.243	A

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	192	0.2	0.1	3.548	A
3 - Access Road (N)	30	7	130	1370	0.022	30	16	0.0	0.0	2.687	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.243	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	57	19	0.1	0.1	3.702	A
2 - Barge Way	119	30	3	1158	0.103	119	160	0.1	0.1	3.465	A
3 - Access Road (N)	25	6	109	1387	0.018	25	14	0.0	0.0	2.643	A
4 - Private Road	82	21	44	1215	0.068	82	90	0.1	0.1	3.180	A

# 2031 + WKN Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.39	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D25	2031 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	53	100.000
2 - Barge Way		ONE HOUR	✓	225	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	31	0	22
	2 - Barge Way	66	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	97	0	100
	2 - Barge Way	56	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	5.13	0.1	A	49	73
2 - Barge Way	0.22	4.06	0.3	A	206	310
3 - Access Road (N)	0.02	2.85	0.0	A	18	28
4 - Private Road	0.12	4.73	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	40	10	70	774	0.052	40	65	0.0	0.1	4.901	A
2 - Barge Way	169	42	17	1141	0.148	169	92	0.0	0.2	3.699	A
3 - Access Road (N)	15	4	151	1344	0.011	15	34	0.0	0.0	2.708	A
4 - Private Road	69	17	66	878	0.079	69	100	0.0	0.1	4.446	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	84	768	0.062	48	78	0.1	0.1	4.997	A
2 - Barge Way	202	51	21	1138	0.178	202	110	0.2	0.2	3.845	A
3 - Access Road (N)	18	4	181	1319	0.014	18	41	0.0	0.0	2.767	A
4 - Private Road	83	21	79	871	0.095	83	120	0.1	0.1	4.563	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	58	15	102	760	0.077	58	96	0.1	0.1	5.132	A
2 - Barge Way	248	62	25	1134	0.218	247	135	0.2	0.3	4.057	A
3 - Access Road (N)	22	6	222	1285	0.017	22	51	0.0	0.0	2.850	A
4 - Private Road	101	25	97	862	0.117	101	147	0.1	0.1	4.729	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	58	15	102	760	0.077	58	96	0.1	0.1	5.133	A
2 - Barge Way	248	62	25	1134	0.218	248	135	0.3	0.3	4.059	A
3 - Access Road (N)	22	6	222	1284	0.017	22	51	0.0	0.0	2.851	A
4 - Private Road	101	25	97	862	0.117	101	148	0.1	0.1	4.730	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	84	768	0.062	48	78	0.1	0.1	5.000	A
2 - Barge Way	202	51	21	1138	0.178	203	111	0.3	0.2	3.847	A
3 - Access Road (N)	18	4	182	1318	0.014	18	41	0.0	0.0	2.770	A
4 - Private Road	83	21	79	871	0.095	83	121	0.1	0.1	4.565	A

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	84	768	0.062	48	78	0.1	0.1	5.000	A
2 - Barge Way	202	51	21	1138	0.178	203	111	0.3	0.2	3.847	A
3 - Access Road (N)	18	4	182	1318	0.014	18	41	0.0	0.0	2.770	A
4 - Private Road	83	21	79	871	0.095	83	121	0.1	0.1	4.565	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	40	10	70	774	0.052	40	66	0.1	0.1	4.905	A
<b>2 - Barge Way</b>	169	42	17	1141	0.148	170	93	0.2	0.2	3.704	A
<b>3 - Access Road (N)</b>	15	4	152	1343	0.011	15	35	0.0	0.0	2.712	A
<b>4 - Private Road</b>	69	17	66	878	0.079	69	101	0.1	0.1	4.451	A

# 2031 + WKN Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.60	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D26	2031 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	92	100.000
2 - Barge Way		ONE HOUR	✓	160	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	88	0	4
	2 - Barge Way	25	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	47	0	25
	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.10	3.93	0.1	A	84	127
2 - Barge Way	0.15	3.69	0.2	A	147	220
3 - Access Road (N)	0.03	2.75	0.0	A	30	45
4 - Private Road	0.10	3.34	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	69	17	107	1042	0.067	69	20	0.0	0.1	3.701	A
2 - Barge Way	120	30	3	1151	0.105	120	173	0.0	0.1	3.489	A
3 - Access Road (N)	25	6	109	1385	0.018	25	13	0.0	0.0	2.645	A
4 - Private Road	82	21	45	1213	0.068	82	89	0.0	0.1	3.181	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	128	1032	0.080	83	24	0.1	0.1	3.793	A
2 - Barge Way	144	36	4	1151	0.125	144	207	0.1	0.1	3.574	A
3 - Access Road (N)	30	7	131	1368	0.022	30	16	0.0	0.0	2.688	A
4 - Private Road	98	24	54	1207	0.081	98	107	0.1	0.1	3.244	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	101	25	156	1018	0.100	101	30	0.1	0.1	3.927	A
2 - Barge Way	176	44	4	1150	0.153	176	253	0.1	0.2	3.694	A
3 - Access Road (N)	36	9	161	1345	0.027	36	20	0.0	0.0	2.749	A
4 - Private Road	120	30	66	1199	0.100	120	131	0.1	0.1	3.336	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	101	25	156	1018	0.100	101	30	0.1	0.1	3.927	A
2 - Barge Way	176	44	4	1150	0.153	176	253	0.2	0.2	3.694	A
3 - Access Road (N)	36	9	161	1345	0.027	36	20	0.0	0.0	2.749	A
4 - Private Road	120	30	66	1199	0.100	120	131	0.1	0.1	3.336	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	128	1031	0.080	83	24	0.1	0.1	3.797	A
2 - Barge Way	144	36	4	1151	0.125	144	207	0.2	0.1	3.575	A
3 - Access Road (N)	30	7	131	1368	0.022	30	16	0.0	0.0	2.688	A
4 - Private Road	98	24	54	1207	0.081	98	107	0.1	0.1	3.245	A

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)											
2 - Barge Way											
3 - Access Road (N)											
4 - Private Road											



Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	69	17	107	1041	0.067	69	20	0.1	0.1	3.705	A
<b>2 - Barge Way</b>	120	30	3	1151	0.105	121	173	0.1	0.1	3.495	A
<b>3 - Access Road (N)</b>	25	6	110	1385	0.018	25	14	0.0	0.0	2.648	A
<b>4 - Private Road</b>	82	21	45	1213	0.068	82	90	0.1	0.1	3.182	A

# 2031 + K3 and WKN Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.42	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D27	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	56	100.000
2 - Barge Way		ONE HOUR	✓	227	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	34	0	22
	2 - Barge Way	68	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	97	0	100
	2 - Barge Way	57	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	5.15	0.1	A	51	77
2 - Barge Way	0.22	4.09	0.3	A	208	312
3 - Access Road (N)	0.02	2.86	0.0	A	18	28
4 - Private Road	0.12	4.74	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	70	774	0.054	42	67	0.0	0.1	4.914	A
2 - Barge Way	171	43	17	1137	0.150	170	94	0.0	0.2	3.721	A
3 - Access Road (N)	15	4	153	1342	0.011	15	34	0.0	0.0	2.712	A
4 - Private Road	69	17	67	877	0.079	69	100	0.0	0.1	4.452	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	50	13	84	768	0.066	50	80	0.1	0.1	5.014	A
2 - Barge Way	204	51	21	1134	0.180	204	113	0.2	0.2	3.869	A
3 - Access Road (N)	18	4	183	1317	0.014	18	41	0.0	0.0	2.771	A
4 - Private Road	83	21	81	870	0.095	83	120	0.1	0.1	4.570	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	62	15	102	760	0.081	62	98	0.1	0.1	5.155	A
2 - Barge Way	250	62	25	1130	0.221	250	139	0.2	0.3	4.086	A
3 - Access Road (N)	22	6	224	1282	0.017	22	51	0.0	0.0	2.856	A
4 - Private Road	101	25	99	861	0.118	101	147	0.1	0.1	4.739	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	62	15	102	760	0.081	62	98	0.1	0.1	5.155	A
2 - Barge Way	250	62	25	1130	0.221	250	139	0.3	0.3	4.088	A
3 - Access Road (N)	22	6	225	1282	0.017	22	51	0.0	0.0	2.856	A
4 - Private Road	101	25	99	861	0.118	101	148	0.1	0.1	4.739	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	50	13	84	768	0.066	50	80	0.1	0.1	5.018	A
2 - Barge Way	204	51	21	1134	0.180	204	113	0.3	0.2	3.871	A
3 - Access Road (N)	18	4	184	1316	0.014	18	41	0.0	0.0	2.772	A
4 - Private Road	83	21	81	870	0.095	83	121	0.1	0.1	4.572	A

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	50	13	84	768	0.066	50	80	0.1	0.1	5.018	A
2 - Barge Way	204	51	21	1134	0.180	204	113	0.3	0.2	3.871	A
3 - Access Road (N)	18	4	184	1316	0.014	18	41	0.0	0.0	2.772	A
4 - Private Road	83	21	81	870	0.095	83	121	0.1	0.1	4.572	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	70	774	0.054	42	67	0.1	0.1	4.918	A
2 - Barge Way	171	43	17	1137	0.150	171	95	0.2	0.2	3.728	A
3 - Access Road (N)	15	4	154	1342	0.011	15	35	0.0	0.0	2.715	A
4 - Private Road	69	17	68	877	0.079	69	101	0.1	0.1	4.459	A

# 2031 + K3 and WKN Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.64	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D28	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	94	100.000
2 - Barge Way		ONE HOUR	✓	163	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	90	0	4
	2 - Barge Way	28	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	48	0	25
	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.10	3.97	0.1	A	86	129
2 - Barge Way	0.16	3.74	0.2	A	150	224
3 - Access Road (N)	0.03	2.76	0.0	A	30	45
4 - Private Road	0.10	3.35	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	71	18	107	1035	0.068	70	22	0.0	0.1	3.734	A
2 - Barge Way	123	31	3	1142	0.108	122	174	0.0	0.1	3.529	A
3 - Access Road (N)	25	6	112	1383	0.018	25	13	0.0	0.0	2.650	A
4 - Private Road	82	21	47	1211	0.068	82	89	0.0	0.1	3.187	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	85	21	128	1025	0.082	84	27	0.1	0.1	3.828	A
2 - Barge Way	147	37	4	1141	0.128	146	208	0.1	0.1	3.618	A
3 - Access Road (N)	30	7	134	1365	0.022	30	16	0.0	0.0	2.694	A
4 - Private Road	98	24	57	1205	0.081	98	107	0.1	0.1	3.252	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	103	26	156	1011	0.102	103	33	0.1	0.1	3.966	A
2 - Barge Way	179	45	4	1141	0.157	179	255	0.1	0.2	3.743	A
3 - Access Road (N)	36	9	164	1342	0.027	36	20	0.0	0.0	2.756	A
4 - Private Road	120	30	69	1196	0.100	120	131	0.1	0.1	3.346	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	103	26	156	1011	0.102	103	33	0.1	0.1	3.966	A
2 - Barge Way	179	45	4	1141	0.157	179	255	0.2	0.2	3.743	A
3 - Access Road (N)	36	9	164	1342	0.027	36	20	0.0	0.0	2.757	A
4 - Private Road	120	30	69	1196	0.100	120	131	0.1	0.1	3.346	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	85	21	128	1025	0.082	85	27	0.1	0.1	3.829	A
2 - Barge Way	147	37	4	1141	0.128	147	209	0.2	0.1	3.622	A
3 - Access Road (N)	30	7	134	1365	0.022	30	16	0.0	0.0	2.697	A
4 - Private Road	98	24	57	1205	0.081	98	107	0.1	0.1	3.253	A

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)											
2 - Barge Way											
3 - Access Road (N)											
4 - Private Road											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	71	18	107	1034	0.068	71	23	0.1	0.1	3.738	A
<b>2 - Barge Way</b>	123	31	3	1142	0.108	123	175	0.1	0.1	3.533	A
<b>3 - Access Road (N)</b>	25	6	112	1382	0.018	25	14	0.0	0.0	2.651	A
<b>4 - Private Road</b>	82	21	47	1211	0.068	82	90	0.1	0.1	3.190	A

# 2031 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.30	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D29	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	47	100.000
2 - Barge Way		ONE HOUR	✓	218	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	25	0	22
	2 - Barge Way	59	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
1 - Access (S)		0	96	0	100



From	2 - Barge Way	51	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.07	5.07	0.1	A	43	65
2 - Barge Way	0.21	3.95	0.3	A	200	300
3 - Access Road (N)	0.02	2.83	0.0	A	18	28
4 - Private Road	0.12	4.70	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.046	35	60	0.0	0.0	4.861	A
2 - Barge Way	164	41	17	1159	0.142	163	88	0.0	0.2	3.615	A
3 - Access Road (N)	15	4	146	1350	0.011	15	34	0.0	0.0	2.696	A
4 - Private Road	69	17	61	882	0.079	69	100	0.0	0.1	4.426	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	84	769	0.055	42	72	0.0	0.1	4.950	A
2 - Barge Way	196	49	21	1156	0.170	196	105	0.2	0.2	3.749	A
3 - Access Road (N)	18	4	175	1326	0.014	18	41	0.0	0.0	2.752	A
4 - Private Road	83	21	73	876	0.094	83	120	0.1	0.1	4.538	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	52	13	102	761	0.068	52	88	0.1	0.1	5.074	A
2 - Barge Way	240	60	25	1152	0.208	240	129	0.2	0.3	3.945	A
3 - Access Road (N)	22	6	214	1293	0.017	22	51	0.0	0.0	2.831	A
4 - Private Road	101	25	89	868	0.117	101	147	0.1	0.1	4.696	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	52	13	102	761	0.068	52	88	0.1	0.1	5.074	A
2 - Barge Way	240	60	25	1152	0.208	240	129	0.3	0.3	3.947	A
3 - Access Road (N)	22	6	215	1293	0.017	22	51	0.0	0.0	2.832	A
4 - Private Road	101	25	89	868	0.117	101	148	0.1	0.1	4.696	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	84	769	0.055	42	72	0.1	0.1	4.953	A
2 - Barge Way	196	49	21	1156	0.170	196	105	0.3	0.2	3.751	A

<b>3 - Access Road (N)</b>	18	4	176	1325	0.014	18	41	0.0	0.0	2.755	A
<b>4 - Private Road</b>	83	21	73	876	0.094	83	121	0.1	0.1	4.539	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	35	9	70	775	0.046	35	60	0.1	0.0	4.867	A
<b>2 - Barge Way</b>	164	41	17	1159	0.142	164	88	0.2	0.2	3.619	A
<b>3 - Access Road (N)</b>	15	4	147	1349	0.011	15	35	0.0	0.0	2.698	A
<b>4 - Private Road</b>	69	17	61	882	0.079	69	101	0.1	0.1	4.431	A

# 2031 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.56	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D30	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	75	100.000
2 - Barge Way		ONE HOUR	✓	158	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	71	0	4
	2 - Barge Way	23	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
1 - Access (S)		0	49	0	25

From	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	3.90	0.1	A	69	103
2 - Barge Way	0.15	3.66	0.2	A	145	217
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.33	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	56	19	0.0	0.1	3.697	A
2 - Barge Way	119	30	3	1158	0.103	118	160	0.0	0.1	3.462	A
3 - Access Road (N)	25	6	108	1387	0.018	25	13	0.0	0.0	2.642	A
4 - Private Road	82	21	44	1215	0.068	82	89	0.0	0.1	3.177	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	191	0.1	0.1	3.544	A
3 - Access Road (N)	30	7	129	1370	0.022	30	16	0.0	0.0	2.684	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.239	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	234	0.1	0.2	3.661	A
3 - Access Road (N)	36	9	158	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	235	0.2	0.2	3.661	A
3 - Access Road (N)	36	9	159	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	192	0.2	0.1	3.548	A

<b>3 - Access Road (N)</b>	30	7	130	1370	0.022	30	16	0.0	0.0	2.687	A
<b>4 - Private Road</b>	98	24	52	1209	0.081	98	107	0.1	0.1	3.243	A

**17:30 - 17:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	56	14	107	1030	0.055	57	19	0.1	0.1	3.702	A
<b>2 - Barge Way</b>	119	30	3	1158	0.103	119	160	0.1	0.1	3.465	A
<b>3 - Access Road (N)</b>	25	6	109	1387	0.018	25	14	0.0	0.0	2.643	A
<b>4 - Private Road</b>	82	21	44	1215	0.068	82	90	0.1	0.1	3.180	A

# 2031 + WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.39	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D31	2031 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	53	100.000
2 - Barge Way		ONE HOUR	✓	225	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	31	0	22
	2 - Barge Way	66	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
1 - Access (S)		0	97	0	100

From	2 - Barge Way	56	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	5.13	0.1	A	49	73
2 - Barge Way	0.22	4.06	0.3	A	206	310
3 - Access Road (N)	0.02	2.85	0.0	A	18	28
4 - Private Road	0.12	4.73	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	40	10	70	774	0.052	40	65	0.0	0.1	4.901	A
2 - Barge Way	169	42	17	1141	0.148	169	92	0.0	0.2	3.699	A
3 - Access Road (N)	15	4	151	1344	0.011	15	34	0.0	0.0	2.708	A
4 - Private Road	69	17	66	878	0.079	69	100	0.0	0.1	4.446	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	84	768	0.062	48	78	0.1	0.1	4.997	A
2 - Barge Way	202	51	21	1138	0.178	202	110	0.2	0.2	3.845	A
3 - Access Road (N)	18	4	181	1319	0.014	18	41	0.0	0.0	2.767	A
4 - Private Road	83	21	79	871	0.095	83	120	0.1	0.1	4.563	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	58	15	102	760	0.077	58	96	0.1	0.1	5.132	A
2 - Barge Way	248	62	25	1134	0.218	247	135	0.2	0.3	4.057	A
3 - Access Road (N)	22	6	222	1285	0.017	22	51	0.0	0.0	2.850	A
4 - Private Road	101	25	97	862	0.117	101	147	0.1	0.1	4.729	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	58	15	102	760	0.077	58	96	0.1	0.1	5.133	A
2 - Barge Way	248	62	25	1134	0.218	248	135	0.3	0.3	4.059	A
3 - Access Road (N)	22	6	222	1284	0.017	22	51	0.0	0.0	2.851	A
4 - Private Road	101	25	97	862	0.117	101	148	0.1	0.1	4.730	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	84	768	0.062	48	78	0.1	0.1	5.000	A
2 - Barge Way	202	51	21	1138	0.178	203	111	0.3	0.2	3.847	A

<b>3 - Access Road (N)</b>	18	4	182	1318	0.014	18	41	0.0	0.0	2.770	A
<b>4 - Private Road</b>	83	21	79	871	0.095	83	121	0.1	0.1	4.565	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	40	10	70	774	0.052	40	66	0.1	0.1	4.905	A
<b>2 - Barge Way</b>	169	42	17	1141	0.148	170	93	0.2	0.2	3.704	A
<b>3 - Access Road (N)</b>	15	4	152	1343	0.011	15	35	0.0	0.0	2.712	A
<b>4 - Private Road</b>	69	17	66	878	0.079	69	101	0.1	0.1	4.451	A



# 2031 + WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.60	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D32	2031 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	92	100.000
2 - Barge Way		ONE HOUR	✓	160	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	88	0	4
	2 - Barge Way	25	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
	1 - Access (S)	0	47	0	25

From	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.10	3.93	0.1	A	84	127
2 - Barge Way	0.15	3.69	0.2	A	147	220
3 - Access Road (N)	0.03	2.75	0.0	A	30	45
4 - Private Road	0.10	3.34	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	69	17	107	1042	0.067	69	20	0.0	0.1	3.701	A
2 - Barge Way	120	30	3	1151	0.105	120	173	0.0	0.1	3.489	A
3 - Access Road (N)	25	6	109	1385	0.018	25	13	0.0	0.0	2.645	A
4 - Private Road	82	21	45	1213	0.068	82	89	0.0	0.1	3.181	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	128	1032	0.080	83	24	0.1	0.1	3.793	A
2 - Barge Way	144	36	4	1151	0.125	144	207	0.1	0.1	3.574	A
3 - Access Road (N)	30	7	131	1368	0.022	30	16	0.0	0.0	2.688	A
4 - Private Road	98	24	54	1207	0.081	98	107	0.1	0.1	3.244	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	101	25	156	1018	0.100	101	30	0.1	0.1	3.927	A
2 - Barge Way	176	44	4	1150	0.153	176	253	0.1	0.2	3.694	A
3 - Access Road (N)	36	9	161	1345	0.027	36	20	0.0	0.0	2.749	A
4 - Private Road	120	30	66	1199	0.100	120	131	0.1	0.1	3.336	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	101	25	156	1018	0.100	101	30	0.1	0.1	3.927	A
2 - Barge Way	176	44	4	1150	0.153	176	253	0.2	0.2	3.694	A
3 - Access Road (N)	36	9	161	1345	0.027	36	20	0.0	0.0	2.749	A
4 - Private Road	120	30	66	1199	0.100	120	131	0.1	0.1	3.336	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	128	1031	0.080	83	24	0.1	0.1	3.797	A
2 - Barge Way	144	36	4	1151	0.125	144	207	0.2	0.1	3.575	A

<b>3 - Access Road (N)</b>	30	7	131	1368	0.022	30	16	0.0	0.0	2.688	A
<b>4 - Private Road</b>	98	24	54	1207	0.081	98	107	0.1	0.1	3.245	A

**17:30 - 17:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	69	17	107	1041	0.067	69	20	0.1	0.1	3.705	A
<b>2 - Barge Way</b>	120	30	3	1151	0.105	121	173	0.1	0.1	3.495	A
<b>3 - Access Road (N)</b>	25	6	110	1385	0.018	25	14	0.0	0.0	2.648	A
<b>4 - Private Road</b>	82	21	45	1213	0.068	82	90	0.1	0.1	3.182	A

# 2031 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.42	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D33	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	56	100.000
2 - Barge Way		ONE HOUR	✓	227	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	34	0	22
	2 - Barge Way	68	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road

From	1 - Access (S)	0	97	0	100
	2 - Barge Way	57	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	5.15	0.1	A	51	77
2 - Barge Way	0.22	4.09	0.3	A	208	312
3 - Access Road (N)	0.02	2.86	0.0	A	18	28
4 - Private Road	0.12	4.74	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	42	11	70	774	0.054	42	67	0.0	0.1	4.914	A
2 - Barge Way	171	43	17	1137	0.150	170	94	0.0	0.2	3.721	A
3 - Access Road (N)	15	4	153	1342	0.011	15	34	0.0	0.0	2.712	A
4 - Private Road	69	17	67	877	0.079	69	100	0.0	0.1	4.452	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	50	13	84	768	0.066	50	80	0.1	0.1	5.014	A
2 - Barge Way	204	51	21	1134	0.180	204	113	0.2	0.2	3.869	A
3 - Access Road (N)	18	4	183	1317	0.014	18	41	0.0	0.0	2.771	A
4 - Private Road	83	21	81	870	0.095	83	120	0.1	0.1	4.570	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	62	15	102	760	0.081	62	98	0.1	0.1	5.155	A
2 - Barge Way	250	62	25	1130	0.221	250	139	0.2	0.3	4.086	A
3 - Access Road (N)	22	6	224	1282	0.017	22	51	0.0	0.0	2.856	A
4 - Private Road	101	25	99	861	0.118	101	147	0.1	0.1	4.739	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	62	15	102	760	0.081	62	98	0.1	0.1	5.155	A
2 - Barge Way	250	62	25	1130	0.221	250	139	0.3	0.3	4.088	A
3 - Access Road (N)	22	6	225	1282	0.017	22	51	0.0	0.0	2.856	A
4 - Private Road	101	25	99	861	0.118	101	148	0.1	0.1	4.739	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	50	13	84	768	0.066	50	80	0.1	0.1	5.018	A

<b>2 - Barge Way</b>	204	51	21	1134	0.180	204	113	0.3	0.2	3.871	A
<b>3 - Access Road (N)</b>	18	4	184	1316	0.014	18	41	0.0	0.0	2.772	A
<b>4 - Private Road</b>	83	21	81	870	0.095	83	121	0.1	0.1	4.572	A

**08:30 - 08:45**

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>1 - Access (S)</b>	42	11	70	774	0.054	42	67	0.1	0.1	4.918	A
<b>2 - Barge Way</b>	171	43	17	1137	0.150	171	95	0.2	0.2	3.728	A
<b>3 - Access Road (N)</b>	15	4	154	1342	0.011	15	35	0.0	0.0	2.715	A
<b>4 - Private Road</b>	69	17	68	877	0.079	69	101	0.1	0.1	4.459	A

# 2031 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.64	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D34	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	94	100.000
2 - Barge Way		ONE HOUR	✓	163	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	90	0	4
	2 - Barge Way	28	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road

From	1 - Access (S)	0	48	0	25
	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.10	3.97	0.1	A	86	129
2 - Barge Way	0.16	3.74	0.2	A	150	224
3 - Access Road (N)	0.03	2.76	0.0	A	30	45
4 - Private Road	0.10	3.35	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	71	18	107	1035	0.068	70	22	0.0	0.1	3.734	A
2 - Barge Way	123	31	3	1142	0.108	122	174	0.0	0.1	3.529	A
3 - Access Road (N)	25	6	112	1383	0.018	25	13	0.0	0.0	2.650	A
4 - Private Road	82	21	47	1211	0.068	82	89	0.0	0.1	3.187	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	85	21	128	1025	0.082	84	27	0.1	0.1	3.828	A
2 - Barge Way	147	37	4	1141	0.128	146	208	0.1	0.1	3.618	A
3 - Access Road (N)	30	7	134	1365	0.022	30	16	0.0	0.0	2.694	A
4 - Private Road	98	24	57	1205	0.081	98	107	0.1	0.1	3.252	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	103	26	156	1011	0.102	103	33	0.1	0.1	3.966	A
2 - Barge Way	179	45	4	1141	0.157	179	255	0.1	0.2	3.743	A
3 - Access Road (N)	36	9	164	1342	0.027	36	20	0.0	0.0	2.756	A
4 - Private Road	120	30	69	1196	0.100	120	131	0.1	0.1	3.346	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	103	26	156	1011	0.102	103	33	0.1	0.1	3.966	A
2 - Barge Way	179	45	4	1141	0.157	179	255	0.2	0.2	3.743	A
3 - Access Road (N)	36	9	164	1342	0.027	36	20	0.0	0.0	2.757	A
4 - Private Road	120	30	69	1196	0.100	120	131	0.1	0.1	3.346	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	85	21	128	1025	0.082	85	27	0.1	0.1	3.829	A



<b>2 - Barge Way</b>	147	37	4	1141	0.128	147	209	0.2	0.1	3.622	A
<b>3 - Access Road (N)</b>	30	7	134	1365	0.022	30	16	0.0	0.0	2.697	A
<b>4 - Private Road</b>	98	24	57	1205	0.081	98	107	0.1	0.1	3.253	A

**17:30 - 17:45**

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>1 - Access (S)</b>	71	18	107	1034	0.068	71	23	0.1	0.1	3.738	A
<b>2 - Barge Way</b>	123	31	3	1142	0.108	123	175	0.1	0.1	3.533	A
<b>3 - Access Road (N)</b>	25	6	112	1382	0.018	25	14	0.0	0.0	2.651	A
<b>4 - Private Road</b>	82	21	47	1211	0.068	82	90	0.1	0.1	3.190	A

<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
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Filename: Dumbbell\_Existing\_FULLLK3.j9

Path: P:\JNY9290 - Kemsley K5\Transport\Arcady\WKN DCO\North and South Dumbell Roundabouts

Report generation date: 08/07/2019 15:52:30

- »2017, AM
- »2017, PM
- »2024, AM
- »2024, PM
- »2024 + Cumulative Development, AM
- »2024 + Cumulative Development, PM
- »2024 + K3 Operational, AM
- »2024 + K3 Operational, PM
- »2024 + K3 and WKN Operational, AM
- »2024 + K3 and WKN Operational, PM
- »2024 + K3 Operational + Cumulative Development, AM
- »2024 + K3 Operational + Cumulative Development, PM
- »2024 + K3 and WKN Operational + Cumulative Development, AM
- »2024 + K3 and WKN Operational + Cumulative Development, PM
- »2031, AM
- »2031, PM
- »2031 + Cumulative Development, AM
- »2031 + Cumulative Development, PM
- »2031 + K3 Operational, AM
- »2031 + K3 Operational, PM
- »2031 + K3 and WKN Operational, AM
- »2031 + K3 and WKN Operational, PM
- »2031 + K3 Operational + Cumulative Development, AM
- »2031 + K3 Operational + Cumulative Development, PM
- »2031 + K3 and WKN Operational + Cumulative Development, AM
- »2031 + K3 and WKN Operational + Cumulative Development, PM

### Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
<b>2017</b>						
1 - North - 1 - A249 offslip (NB)	6.5	33.77	0.88	43.4	176.66	1.09
1 - North - 2 - Grovehurst Road	6.5	57.68	0.90	0.8	12.71	0.46
1 - North - 4 - B2005 - link	0.4	3.33	0.30	0.6	3.65	0.38
2 - South - 2 - B2005 - link	1.5	4.97	0.60	0.8	3.54	0.44
2 - South - 3 - A249 offslip (SB)	23.4	138.98	1.06	1.5	11.60	0.61
2 - South - 4 - Swale Way	14.6	90.60	0.98	362.8	1810.92	1.74
2 - South - 5 - Grovehurst Road	17.8	101.37	1.01	4.4	28.52	0.83
<b>2024</b>						
1 - North - 1 - A249 offslip (NB)	57.4	220.97	1.12	87.6	388.10	1.21
1 - North - 2 - Grovehurst Road	37.3	298.50	1.15	0.9	13.57	0.49
1 - North - 4 - B2005 - link	0.4	3.30	0.29	0.6	3.63	0.38
2 - South - 2 - B2005 - link	2.0	6.11	0.67	0.8	3.76	0.45
2 - South - 3 - A249 offslip (SB)	128.6	1034.84	1.48	1.8	13.50	0.65
2 - South - 4 - Swale Way	65.6	365.54	1.17	727.1	3677.22	2.19
2 - South - 5 - Grovehurst Road	50.0	284.68	1.14	5.0	32.51	0.85

2024 + Cumulative Development						
1 - North - 1 - A249 offslip (NB)	77.8	320.57	1.16	134.7	610.53	1.31
1 - North - 2 - Grovehurst Road	45.2	387.15	1.19	1.0	14.70	0.51
1 - North - 4 - B2005 - link	0.4	3.28	0.29	0.6	3.64	0.38
2 - South - 2 - B2005 - link	1.9	5.99	0.66	0.9	3.81	0.46
2 - South - 3 - A249 offslip (SB)	141.4	1143.80	1.48	2.4	16.53	0.71
2 - South - 4 - Swale Way	84.1	504.35	1.23	798.5	4298.91	2.38
2 - South - 5 - Grovehurst Road	131.6	746.08	1.33	8.0	46.89	0.91
2024 + K3 Operational						
1 - North - 1 - A249 offslip (NB)	72.9	300.60	1.15	101.4	467.32	1.25
1 - North - 2 - Grovehurst Road	39.2	321.84	1.16	0.9	13.78	0.49
1 - North - 4 - B2005 - link	0.4	3.30	0.29	0.6	3.64	0.37
2 - South - 2 - B2005 - link	2.0	6.20	0.67	0.8	3.83	0.46
2 - South - 3 - A249 offslip (SB)	134.5	1134.31	1.49	1.8	13.84	0.65
2 - South - 4 - Swale Way	80.0	465.37	1.21	771.1	3927.96	2.25
2 - South - 5 - Grovehurst Road	52.1	303.49	1.15	5.2	33.46	0.85
2024 + K3 and WKN Operational						
1 - North - 1 - A249 offslip (NB)	79.4	335.56	1.17	102.9	474.13	1.25
1 - North - 2 - Grovehurst Road	39.8	329.00	1.16	0.9	13.77	0.49
1 - North - 4 - B2005 - link	0.4	3.29	0.28	0.6	3.61	0.37
2 - South - 2 - B2005 - link	2.0	6.28	0.67	0.8	3.86	0.46
2 - South - 3 - A249 offslip (SB)	138.2	1171.76	1.50	1.9	14.00	0.66
2 - South - 4 - Swale Way	91.0	527.84	1.24	799.0	4063.43	2.28
2 - South - 5 - Grovehurst Road	53.3	314.99	1.15	5.2	33.88	0.85
2024 + K3 Operational + Cumulative Development						
1 - North - 1 - A249 offslip (NB)	95.1	409.50	1.20	156.2	702.80	1.35
1 - North - 2 - Grovehurst Road	46.7	404.72	1.19	1.1	14.88	0.52
1 - North - 4 - B2005 - link	0.4	3.26	0.28	0.6	3.63	0.38
2 - South - 2 - B2005 - link	2.0	6.07	0.67	0.9	3.89	0.47
2 - South - 3 - A249 offslip (SB)	147.7	1203.05	1.49	2.4	16.99	0.72
2 - South - 4 - Swale Way	102.4	604.90	1.27	840.9	4550.59	2.44
2 - South - 5 - Grovehurst Road	135.9	773.65	1.34	8.3	48.89	0.91
2024 + K3 and WKN Operational + Cumulative Development						
1 - North - 1 - A249 offslip (NB)	102.3	448.13	1.21	163.1	732.82	1.36
1 - North - 2 - Grovehurst Road	47.3	411.69	1.19	1.1	14.94	0.52
1 - North - 4 - B2005 - link	0.4	3.25	0.28	0.6	3.62	0.38
2 - South - 2 - B2005 - link	2.0	6.14	0.67	0.9	3.91	0.47
2 - South - 3 - A249 offslip (SB)	151.3	1237.30	1.50	2.5	17.19	0.72
2 - South - 4 - Swale Way	114.6	673.04	1.29	869.3	4704.58	2.48
2 - South - 5 - Grovehurst Road	138.2	791.02	1.34	8.4	49.32	0.92
2031						
1 - North - 1 - A249 offslip (NB)	57.4	220.97	1.12	87.6	388.10	1.21
1 - North - 2 - Grovehurst Road	37.3	298.50	1.15	0.9	13.57	0.49
1 - North - 4 - B2005 - link	0.4	3.30	0.29	0.6	3.63	0.38
2 - South - 2 - B2005 - link	2.0	6.11	0.67	0.8	3.76	0.45
2 - South - 3 - A249 offslip (SB)	128.6	1034.84	1.48	1.8	13.50	0.65
2 - South - 4 - Swale Way	65.6	365.54	1.17	727.1	3677.22	2.19
2 - South - 5 - Grovehurst Road	50.0	284.68	1.14	5.0	32.51	0.85
2031 + Cumulative Development						
1 - North - 1 - A249 offslip (NB)	209.5	822.84	1.35	418.6	1773.43	1.68
1 - North - 2 - Grovehurst Road	329.5	2534.43	1.81	2.6	22.53	0.73
1 - North - 4 - B2005 - link	0.3	3.13	0.26	0.6	3.60	0.37
2 - South - 2 - B2005 - link	2.0	5.88	0.67	0.9	3.87	0.48
2 - South - 3 - A249 offslip (SB)	182.4	1454.61	1.52	3.9	25.47	0.81
2 - South - 4 - Swale Way	226.3	1484.99	1.52	1014.9	5790.74	2.87
2 - South - 5 - Grovehurst Road	254.9	1663.71	1.57	15.3	84.86	0.98
2031 + K3 Operational						
1 - North - 1 - A249 offslip (NB)	72.9	300.60	1.15	101.3	466.83	1.25
1 - North - 2 - Grovehurst Road	39.2	321.84	1.16	0.9	13.78	0.49
1 - North - 4 - B2005 - link	0.4	3.30	0.29	0.6	3.64	0.37
2 - South - 2 - B2005 - link	2.0	6.20	0.67	0.8	3.83	0.46
2 - South - 3 - A249 offslip (SB)	134.5	1134.31	1.49	1.8	13.84	0.65
2 - South - 4 - Swale Way	80.0	465.37	1.21	772.5	3935.47	2.25
2 - South - 5 - Grovehurst Road	52.1	303.49	1.15	5.2	33.47	0.85

2031 + K3 and WKN Operational						
1 - North - 1 - A249 offslip (NB)	79.4	335.56	1.17	102.9	474.13	1.25
1 - North - 2 - Grovehurst Road	39.8	329.00	1.16	0.9	13.77	0.49
1 - North - 4 - B2005 - link	0.4	3.29	0.28	0.6	3.61	0.37
2 - South - 2 - B2005 - link	2.0	6.28	0.67	0.8	3.86	0.46
2 - South - 3 - A249 offslip (SB)	138.2	1171.76	1.50	1.9	14.00	0.66
2 - South - 4 - Swale Way	91.0	527.84	1.24	799.0	4063.43	2.28
2 - South - 5 - Grovehurst Road	53.3	314.99	1.15	5.2	33.88	0.85
2031 + K3 Operational + Cumulative Development						
1 - North - 1 - A249 offslip (NB)	240.8	968.71	1.39	442.7	1877.99	1.71
1 - North - 2 - Grovehurst Road	335.5	2594.76	1.82	2.6	22.96	0.73
1 - North - 4 - B2005 - link	0.3	3.15	0.26	0.6	3.60	0.37
2 - South - 2 - B2005 - link	2.0	5.93	0.67	0.9	3.93	0.48
2 - South - 3 - A249 offslip (SB)	186.7	1492.39	1.53	4.1	26.42	0.81
2 - South - 4 - Swale Way	250.5	1639.88	1.56	1052.3	6015.44	2.93
2 - South - 5 - Grovehurst Road	254.4	1658.03	1.57	15.7	87.19	0.98
2031 + K3 and WKN Operational + Cumulative Development						
1 - North - 1 - A249 offslip (NB)	254.3	1034.46	1.41	453.1	1925.84	1.72
1 - North - 2 - Grovehurst Road	337.8	2617.87	1.82	2.7	23.19	0.74
1 - North - 4 - B2005 - link	0.3	3.14	0.25	0.6	3.59	0.37
2 - South - 2 - B2005 - link	2.0	5.96	0.67	0.9	3.96	0.49
2 - South - 3 - A249 offslip (SB)	189.6	1521.31	1.54	4.2	26.99	0.82
2 - South - 4 - Swale Way	265.6	1736.41	1.58	1083.6	6219.54	2.98
2 - South - 5 - Grovehurst Road	259.4	1699.40	1.58	15.9	88.31	0.99

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

## File summary

### File Description

Title	(untitled)
Location	
Site number	
Date	26/01/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR\Ben.Dance
Description	

## Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

## Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓			0.85	36.00	20.00

## Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓
D21	2031 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D22	2031 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D23	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D24	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D27	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D28	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D29	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D30	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D33	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D34	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

### Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

# 2017, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	31.15	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	69.23	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Junction	Arm	Name	Description
1 - North	1	A249 offslip (NB)	
	2	Grovehurst Road	
	3	A249 onslip (NB)	
	4	B2005 - link	
2 - South	1	A249 onslip (SB)	
	2	B2005 - link	
	3	A249 offslip (SB)	
	4	Swale Way	
	5	Grovehurst Road	

### Roundabout Geometry

Junction	Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - North	1 - A249 offslip (NB)	7.90	8.10	5.8	14.0	37.0	32.0	
	2 - Grovehurst Road	3.71	6.74	20.2	10.1	37.0	45.0	
	3 - A249 onslip (NB)							✓
	4 - B2005 - link	3.75	7.64	13.4	11.9	37.0	41.0	
2 - South	1 - A249 onslip (SB)							✓
	2 - B2005 - link	3.66	6.17	14.7	27.2	36.3	36.0	
	3 - A249 offslip (SB)	8.03	8.04	0.1	10.1	39.2	32.0	
	4 - Swale Way	3.50	7.96	21.2	12.1	39.2	55.0	
	5 - Grovehurst Road	3.73	7.17	15.3	19.5	44.6	39.0	

### Slope / Intercept / Capacity

#### Arm Intercept Adjustments

Junction	Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - North	1 - A249 offslip (NB)	Direct		-1050
	2 - Grovehurst Road	Direct		-400
	3 - A249 onslip (NB)			
	4 - B2005 - link	None		
2 - South	1 - A249 onslip (SB)			
	2 - B2005 - link	Direct		500
	3 - A249 offslip (SB)	Direct		-730
	4 - Swale Way	Direct		-575

5 - Grovehurst Road	Direct	-550
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### Roundabout Slope and Intercept used in model

Junction	Arm	Final slope	Final intercept (PCU/hr)
1 - North	1 - A249 offslip (NB)	0.777	1330
	2 - Grovehurst Road	0.591	1170
	3 - A249 onslip (NB)		
	4 - B2005 - link	0.611	1622
2 - South	1 - A249 onslip (SB)		
	2 - B2005 - link	0.624	2088
	3 - A249 offslip (SB)	0.748	1572
	4 - Swale Way	0.597	1071
	5 - Grovehurst Road	0.616	1130

The slope and intercept shown above include any corrections and adjustments.

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	669	100.000
	2 - Grovehurst Road		ONE HOUR	✓	398	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	518	100.000
	4 - Swale Way		ONE HOUR	✓	544	100.000
	5 - Grovehurst Road		ONE HOUR	✓	573	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	627
		2 - Grovehurst Road	0	0	25	373
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	136	305	0

### Demand (Veh/hr)

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
2 - South	From					
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only

From	2 - B2005 - link	141	0	0	674	183
	3 - A249 offslip (SB)	1	18	0	325	174
	4 - Swale Way	285	194	0	0	65
	5 - Grovehurst Road	206	233	0	134	0

## Vehicle Mix

### Heavy Vehicle Percentages

1 - North

From	To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
	1 - A249 offslip (NB)	0	7	0	14
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	3	5	0	

### Heavy Vehicle Percentages

2 - South

From	To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	13	6
	3 - A249 offslip (SB)	0	6	0	5	4
	4 - Swale Way	32	7	0	0	6
5 - Grovehurst Road	1	2	0	3	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.88	33.77	6.5	35.5	D	614	921
	2 - Grovehurst Road	0.90	57.68	6.5	33.7	F	365	548
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.30	3.33	0.4	1.8	A	407	611
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.60	4.97	1.5	2.0	A	917	1375
	3 - A249 offslip (SB)	1.06	138.98	23.4	62.7	F	475	713
	4 - Swale Way	0.98	90.60	14.6	55.6	F	499	749
	5 - Grovehurst Road	1.01	101.37	17.8	60.1	F	526	789

### Main Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	504	126	330	936	0.538	499	0	0.0	1.1	8.161	A
	2 - Grovehurst Road	300	75	696	690	0.434	297	133	0.0	0.8	9.080	A
	3 - A249 onslip (NB)			746				247				
	4 - B2005 - link	331	83	0	1554	0.213	330	746	0.0	0.3	2.937	A
2 - South	1 - A249 onslip (SB)			431				471				
	2 - B2005 - link	746	186	100	1842	0.405	743	331	0.0	0.7	3.267	A
	3 - A249 offslip (SB)	390	97	843	845	0.462	387	0	0.0	0.8	7.800	A
	4 - Swale Way	410	102	385	694	0.590	404	844	0.0	1.4	12.182	B
	5 - Grovehurst Road	431	108	475	775	0.557	426	314	0.0	1.2	10.202	B

#### 07:30 - 07:45



Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	601	150	396	889	0.677	598	0	1.1	2.0	12.230	B
	2 - Grovehurst Road	358	89	834	602	0.594	355	160	0.8	1.4	14.410	B
	3 - A249 onslip (NB)			893				296				
	4 - B2005 - link	396	99	0	1554	0.255	396	893	0.3	0.3	3.106	A
2 - South	1 - A249 onslip (SB)			515				564				
	2 - B2005 - link	893	223	119	1831	0.488	892	396	0.7	0.9	3.833	A
	3 - A249 offslip (SB)	466	116	1012	713	0.653	462	0	0.8	1.8	14.096	B
	4 - Swale Way	489	122	462	655	0.747	484	1012	1.4	2.7	20.417	C
	5 - Grovehurst Road	515	129	569	709	0.727	510	377	1.2	2.5	17.694	C

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	737	184	462	841	0.875	722	0	2.0	5.7	27.311	D
	2 - Grovehurst Road	438	110	996	499	0.878	423	188	1.4	5.2	41.282	E
	3 - A249 onslip (NB)			1073				346				
	4 - B2005 - link	462	116	0	1554	0.297	462	1073	0.3	0.4	3.295	A
2 - South	1 - A249 onslip (SB)			601				664				
	2 - B2005 - link	1074	268	139	1819	0.590	1072	462	0.9	1.4	4.805	A
	3 - A249 offslip (SB)	570	143	1211	558	1.022	524	0	1.8	13.3	69.759	F
	4 - Swale Way	599	150	543	613	0.978	568	1192	2.7	10.5	57.631	F
	5 - Grovehurst Road	631	158	671	637	0.990	594	441	2.5	11.6	58.638	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	737	184	472	834	0.883	733	0	5.7	6.5	33.775	D
	2 - Grovehurst Road	438	110	1014	488	0.899	433	192	5.2	6.5	57.680	F
	3 - A249 onslip (NB)			1093				354				
	4 - B2005 - link	473	118	0	1554	0.304	472	1093	0.4	0.4	3.327	A
2 - South	1 - A249 onslip (SB)			614				679				
	2 - B2005 - link	1093	273	142	1817	0.602	1093	473	1.4	1.5	4.966	A
	3 - A249 offslip (SB)	570	143	1235	540	1.057	530	0	13.3	23.4	138.977	F
	4 - Swale Way	599	150	552	608	0.985	583	1212	10.5	14.6	90.596	F
	5 - Grovehurst Road	631	158	687	626	1.008	606	448	11.6	17.8	101.371	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	601	150	441	856	0.702	617	0	6.5	2.5	15.965	C
	2 - Grovehurst Road	358	89	884	572	0.626	377	175	6.5	1.8	20.107	C
	3 - A249 onslip (NB)			932				329				
	4 - B2005 - link	441	110	0	1554	0.284	441	932	0.4	0.4	3.235	A
2 - South	1 - A249 onslip (SB)			575				617				
	2 - B2005 - link	931	233	134	1822	0.511	933	441	1.5	1.1	4.057	A
	3 - A249 offslip (SB)	466	116	1067	671	0.694	550	0	23.4	2.5	46.022	E
	4 - Swale Way	489	122	508	631	0.775	532	1109	14.6	3.9	44.947	E
	5 - Grovehurst Road	515	129	620	672	0.767	571	419	17.8	3.7	47.063	E

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	504	126	343	926	0.544	509	0	2.5	1.2	8.722	A
	2 - Grovehurst Road	300	75	714	679	0.441	303	138	1.8	0.8	9.685	A
	3 - A249 onslip (NB)			761				256				
	4 - B2005 - link	342	86	0	1554	0.220	343	761	0.4	0.3	2.972	A
2 - South	1 - A249 onslip (SB)			446				487				
	2 - B2005 - link	761	190	103	1840	0.414	763	343	1.1	0.7	3.344	A
	3 - A249 offslip (SB)	390	97	866	827	0.471	396	0	2.5	0.9	8.474	A
	4 - Swale Way	410	102	395	689	0.594	419	867	3.9	1.5	13.777	B
	5 - Grovehurst Road	431	108	491	763	0.565	441	323	3.7	1.3	11.494	B

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.14	0.55	1.03	1.19	1.19			N/A	N/A
	2 - Grovehurst Road	0.75	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.68	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.84	0.14	0.92	1.15	1.15			N/A	N/A
	4 - Swale Way	1.39	0.56	1.29	1.80	1.94			N/A	N/A
	5 - Grovehurst Road	1.22	0.51	1.16	1.66	1.87			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.01	0.06	0.93	5.02	7.46			N/A	N/A
	2 - Grovehurst Road	1.41	0.06	0.80	3.23	4.68			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.95	0.07	0.85	1.63	1.98			N/A	N/A
	3 - A249 offslip (SB)	1.80	0.05	0.47	4.78	7.69			N/A	N/A
	4 - Swale Way	2.72	0.08	1.32	6.82	9.83			N/A	N/A
	5 - Grovehurst Road	2.49	0.06	1.05	6.46	9.62			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	5.65	0.05	0.46	16.04	29.04			N/A	N/A
	2 - Grovehurst Road	5.18	0.06	1.03	14.81	23.94			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.42	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.42	0.03	0.26	1.42	1.42			N/A	N/A
	3 - A249 offslip (SB)	13.27	0.85	9.04	29.34	37.93			N/A	N/A
	4 - Swale Way	10.54	0.22	5.42	26.35	36.20			N/A	N/A
	5 - Grovehurst Road	11.63	0.31	6.58	28.19	38.04			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	6.47	0.04	0.37	14.81	35.52			N/A	N/A
	2 - Grovehurst Road	6.53	0.05	0.48	18.63	33.69			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.03	0.31	1.36	1.78			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.49	0.03	0.26	1.49	1.49			N/A	N/A
	3 - A249 offslip (SB)	23.45	1.82	17.53	49.58	62.70			N/A	N/A
	4 - Swale Way	14.62	0.17	6.14	39.00	55.56			N/A	N/A
	5 - Grovehurst Road	17.80	0.36	9.87	44.18	60.08			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.48	0.05	0.47	6.83	11.33			N/A	N/A
	2 - Grovehurst Road	1.76	0.04	0.42	4.72	8.06			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
	1 - A249 onslip (SB)									
	2 - B2005 - link	1.06	0.52	1.05	1.08	1.55			N/A	N/A

2 - South	3 - A249 offslip (SB)	2.48	0.04	0.39	6.59	12.70			N/A	N/A
	4 - Swale Way	3.92	0.05	0.49	11.12	18.86			N/A	N/A
	5 - Grovehurst Road	3.73	0.05	0.49	10.58	17.85			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.22	0.03	0.32	2.37	6.22			N/A	N/A
	2 - Grovehurst Road	0.80	0.03	0.30	1.48	3.80			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.71	0.09	0.82	1.39	1.46			N/A	N/A
	3 - A249 offslip (SB)	0.91	0.03	0.27	0.91	2.18			N/A	N/A
	4 - Swale Way	1.52	0.03	0.30	1.77	7.10			N/A	N/A
	5 - Grovehurst Road	1.34	0.03	0.29	1.45	5.64			N/A	N/A

# 2017, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	91.44	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	672.02	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	749	100.000
	2 - Grovehurst Road		ONE HOUR	✓	222	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	431	100.000
	4 - Swale Way		ONE HOUR	✓	989	100.000
	5 - Grovehurst Road		ONE HOUR	✓	528	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	569
		2 - Grovehurst Road	0	0	27	195
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	234	470	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	396	322
	3 - A249 offslip (SB)	1	27	0	187	216
	4 - Swale Way	509	351	0	0	129
	5 - Grovehurst Road	110	318	0	100	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	16
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	22	1
	3 - A249 offslip (SB)	0	11	0	7	4
	4 - Swale Way	14	2	0	0	2
	5 - Grovehurst Road	0	2	0	3	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.09	176.66	43.4	91.6	F	687	1031
	2 - Grovehurst Road	0.46	12.71	0.8	3.7	B	204	306
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.38	3.65	0.6	2.0	A	554	832
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.44	3.54	0.8	1.7	A	701	1051
	3 - A249 offslip (SB)	0.61	11.60	1.5	4.0	B	395	593
	4 - Swale Way	1.74	1810.92	362.8	184.9	F	908	1361
	5 - Grovehurst Road	0.83	28.52	4.4	22.2	D	485	727

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	564	141	500	831	0.679	556	0	0.0	2.0	12.739	B
	2 - Grovehurst Road	167	42	756	671	0.249	166	300	0.0	0.3	7.104	A

	3 - A249 onslip (NB)			568				354				
	4 - B2005 - link	502	125	0	1591	0.315	500	568	0.0	0.5	3.295	A
2 - South	1 - A249 onslip (SB)			574				467				
	2 - B2005 - link	569	142	74	1822	0.312	567	500	0.0	0.5	2.865	A
	3 - A249 offslip (SB)	324	81	641	984	0.330	323	0	0.0	0.5	5.431	A
	4 - Swale Way	745	186	454	733	1.015	686	510	0.0	14.6	53.461	F
	5 - Grovehurst Road	398	99	649	683	0.582	392	491	0.0	1.3	12.160	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	673	168	551	795	0.847	663	0	2.0	4.7	25.368	D
	2 - Grovehurst Road	200	50	871	595	0.335	199	343	0.3	0.5	9.067	A
	3 - A249 onslip (NB)			678				392				
	4 - B2005 - link	552	138	0	1591	0.347	551	678	0.5	0.5	3.464	A
2 - South	1 - A249 onslip (SB)			639				487				
	2 - B2005 - link	679	170	89	1813	0.374	678	550	0.5	0.6	3.170	A
	3 - A249 offslip (SB)	387	97	768	884	0.438	386	0	0.5	0.8	7.211	A
	4 - Swale Way	889	222	544	683	1.302	681	610	14.6	66.7	233.318	F
	5 - Grovehurst Road	475	119	654	680	0.698	471	570	1.3	2.2	16.976	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	825	206	600	760	1.085	741	0	4.7	25.5	89.210	F
	2 - Grovehurst Road	244	61	964	535	0.457	243	378	0.5	0.8	12.288	B
	3 - A249 onslip (NB)			777				430				
	4 - B2005 - link	601	150	0	1591	0.378	600	777	0.5	0.6	3.635	A
2 - South	1 - A249 onslip (SB)			707				487				
	2 - B2005 - link	776	194	109	1802	0.431	775	598	0.6	0.8	3.504	A
	3 - A249 offslip (SB)	475	119	884	794	0.598	472	0	0.8	1.4	11.098	B
	4 - Swale Way	1089	272	638	629	1.732	629	717	66.7	181.8	722.148	F
	5 - Grovehurst Road	581	145	620	703	0.827	573	647	2.2	4.1	26.309	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	825	206	604	758	1.088	753	0	25.5	43.4	176.655	F
	2 - Grovehurst Road	244	61	975	527	0.463	244	382	0.8	0.8	12.706	B
	3 - A249 onslip (NB)			787				433				
	4 - B2005 - link	604	151	0	1591	0.380	604	787	0.6	0.6	3.647	A
2 - South	1 - A249 onslip (SB)			711				487				
	2 - B2005 - link	786	197	110	1801	0.436	786	601	0.8	0.8	3.544	A
	3 - A249 offslip (SB)	475	119	896	784	0.605	474	0	1.4	1.5	11.604	B
	4 - Swale Way	1089	272	645	625	1.742	625	725	181.8	297.7	1388.097	F
	5 - Grovehurst Road	581	145	618	704	0.826	580	652	4.1	4.4	28.517	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	673	168	551	795	0.847	777	0	43.4	17.5	146.187	F
	2 - Grovehurst Road	200	50	958	536	0.372	201	370	0.8	0.6	10.755	B
	3 - A249 onslip (NB)			767				392				
	4 - B2005 - link	551	138	0	1591	0.346	551	767	0.6	0.5	3.462	A
2 - South	1 - A249 onslip (SB)			640				482				
	2 - B2005 - link	770	193	91	1812	0.425	770	548	0.8	0.7	3.458	A
	3 - A249 offslip (SB)	387	97	862	810	0.478	390	0	1.5	0.9	8.613	A
	4 - Swale Way	889	222	590	657	1.353	657	662	297.7	355.7	1722.510	F
	5 - Grovehurst Road	475	119	639	690	0.688	483	607	4.4	2.3	18.004	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	564	141	518	818	0.689	624	0	17.5	2.4	24.011	C

1 - North	2 - Grovehurst Road	167	42	820	628	0.266	168	322	0.6	0.4	7.836	A
	3 - A249 onslip (NB)			622				366				
	4 - B2005 - link	518	129	0	1591	0.326	518	622	0.5	0.5	3.358	A
2 - South	1 - A249 onslip (SB)			592				488				
	2 - B2005 - link	625	156	76	1821	0.343	625	516	0.7	0.5	3.012	A
	3 - A249 offslip (SB)	324	81	701	936	0.347	326	0	0.9	0.5	5.916	A
	4 - Swale Way	745	186	484	717	1.039	716	543	355.7	362.8	1810.923	F
	5 - Grovehurst Road	398	99	679	664	0.599	401	522	2.3	1.5	13.846	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.02	0.27	1.23	3.54	4.41			N/A	N/A
	2 - Grovehurst Road	0.33	0.00	0.00	0.33	0.33			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.46	0.00	0.00	0.46	0.46			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
	3 - A249 offslip (SB)	0.49	0.00	0.00	0.49	0.49			N/A	N/A
	4 - Swale Way	14.57	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.35	0.55	1.00	1.40	1.45			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.71	0.11	1.83	12.00	17.01			N/A	N/A
	2 - Grovehurst Road	0.50	0.00	0.00	0.50	0.50			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.60	0.12	0.87	1.37	1.44			N/A	N/A
	3 - A249 offslip (SB)	0.77	0.09	0.84	1.02	1.02			N/A	N/A
	4 - Swale Way	66.71	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.19	0.09	1.38	4.89	6.73			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	25.53	4.99	21.53	47.32	57.09			N/A	N/A
	2 - Grovehurst Road	0.82	0.03	0.26	0.82	0.82			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.03	0.25	0.60	0.60			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.75	0.03	0.25	0.75	0.75			N/A	N/A
	3 - A249 offslip (SB)	1.44	0.03	0.27	1.44	2.10			N/A	N/A
	4 - Swale Way	181.76	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.15	0.04	0.39	10.86	22.23			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	43.45	11.01	38.08	77.14	91.56			N/A	N/A
	2 - Grovehurst Road	0.85	0.03	0.29	1.24	3.67			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.03	0.28	0.61	2.00			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.77	0.03	0.27	0.77	1.69			N/A	N/A
	3 - A249 offslip (SB)	1.50	0.03	0.28	1.50	3.98			N/A	N/A
	4 - Swale Way	297.70	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.38	0.03	0.32	5.99	21.57			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	17.50	1.14	12.85	37.15	47.16			N/A	N/A
	2 - Grovehurst Road	0.60	0.10	0.82	1.36	1.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.74	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.93	0.13	0.95	1.25	1.66			N/A	N/A
	4 - Swale Way	355.73	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.32	0.04	0.42	6.36	11.31			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.35	0.03	0.30	2.35	10.64			N/A	N/A
	2 - Grovehurst Road	0.37	0.03	0.30	0.86	1.18			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.49	0.00	0.00	0.49	0.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.54	0.04	0.43	1.35	1.48			N/A	N/A
	4 - Swale Way	362.76	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.55	0.04	0.37	3.93	7.62			N/A	N/A



# 2024, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	184.04	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	328.34	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	838	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	569	100.000
	4 - Swale Way		ONE HOUR	✓	676	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	796
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	147	326	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	141	0	0	885	183
	3 - A249 offslip (SB)	1	18	0	376	174
	4 - Swale Way	374	225	0	0	77
	5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	7	0	17
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	6	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	15	6
	3 - A249 offslip (SB)	0	6	0	9	4
	4 - Swale Way	36	9	0	0	9
	5 - Grovehurst Road	1	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.12	220.97	57.4	108.4	F	769	1153
	2 - Grovehurst Road	1.15	298.50	37.3	73.2	F	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.29	3.30	0.4	1.7	A	424	636
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.11	2.0	4.6	A	1108	1662
	3 - A249 offslip (SB)	1.48	1034.84	128.6	200.0	F	522	783
	4 - Swale Way	1.17	365.54	65.6	115.2	F	620	930
	5 - Grovehurst Road	1.14	284.68	50.0	93.2	F	561	841

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	631	158	351	895	0.705	622	0	0.0	2.3	12.775	B
	2 - Grovehurst Road	331	83	832	590	0.561	326	140	0.0	1.2	13.393	B

	3 - A249 onslip (NB)			898				260				
	4 - B2005 - link	352	88	0	1540	0.229	351	898	0.0	0.3	3.025	A
2 - South	1 - A249 onslip (SB)			479				533				
	2 - B2005 - link	901	225	127	1792	0.503	897	352	0.0	1.0	4.003	A
	3 - A249 offslip (SB)	428	107	1024	673	0.637	422	0	0.0	1.7	13.983	B
	4 - Swale Way	509	127	383	673	0.756	498	1063	0.0	2.8	19.440	C
	5 - Grovehurst Road	460	115	560	699	0.658	453	321	0.0	1.8	14.210	B

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	753	188	414	851	0.885	738	0	2.3	6.1	28.641	D
	2 - Grovehurst Road	396	99	986	490	0.807	386	166	1.2	3.5	32.227	D
	3 - A249 onslip (NB)			1066				307				
	4 - B2005 - link	414	103	0	1540	0.269	414	1066	0.3	0.4	3.197	A
2 - South	1 - A249 onslip (SB)			564				629				
	2 - B2005 - link	1069	267	151	1779	0.601	1067	414	1.0	1.5	5.041	A
	3 - A249 offslip (SB)	512	128	1217	524	0.977	480	0	1.7	9.6	59.703	F
	4 - Swale Way	608	152	449	640	0.949	584	1249	2.8	8.8	49.568	E
	5 - Grovehurst Road	549	137	658	628	0.874	535	375	1.8	5.3	34.489	D

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	923	231	444	829	1.112	816	0	6.1	32.8	100.640	F
	2 - Grovehurst Road	484	121	1081	428	1.132	415	179	3.5	20.8	127.599	F
	3 - A249 onslip (NB)			1166				330				
	4 - B2005 - link	444	111	0	1540	0.289	444	1166	0.4	0.4	3.286	A
2 - South	1 - A249 onslip (SB)			608				681				
	2 - B2005 - link	1171	293	164	1771	0.661	1169	444	1.5	1.9	5.957	A
	3 - A249 offslip (SB)	626	157	1333	435	1.441	433	0	9.6	58.0	301.133	F
	4 - Swale Way	744	186	460	635	1.172	628	1305	8.8	37.8	150.258	F
	5 - Grovehurst Road	673	168	707	592	1.136	581	381	5.3	28.3	122.229	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	923	231	448	827	1.116	824	0	32.8	57.4	208.500	F
	2 - Grovehurst Road	484	121	1091	421	1.151	418	180	20.8	37.3	267.696	F
	3 - A249 onslip (NB)			1178				332				
	4 - B2005 - link	448	112	0	1540	0.291	448	1178	0.4	0.4	3.296	A
2 - South	1 - A249 onslip (SB)			612				686				
	2 - B2005 - link	1182	295	165	1771	0.668	1182	448	1.9	2.0	6.107	A
	3 - A249 offslip (SB)	626	157	1347	424	1.478	424	0	58.0	108.7	714.975	F
	4 - Swale Way	744	186	460	635	1.173	633	1310	37.8	65.6	306.303	F
	5 - Grovehurst Road	673	168	713	588	1.144	586	381	28.3	50.0	254.342	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	753	188	444	830	0.908	816	0	57.4	41.9	220.970	F
	2 - Grovehurst Road	396	99	1081	428	0.924	417	179	37.3	32.0	298.497	F
	3 - A249 onslip (NB)			1168				330				
	4 - B2005 - link	444	111	0	1540	0.288	444	1168	0.4	0.4	3.284	A
2 - South	1 - A249 onslip (SB)			608				680				
	2 - B2005 - link	1172	293	164	1771	0.662	1172	444	2.0	2.0	6.010	A
	3 - A249 offslip (SB)	512	128	1336	432	1.184	432	0	108.7	128.6	997.300	F
	4 - Swale Way	608	152	461	635	0.958	625	1307	65.6	61.2	365.536	F
	5 - Grovehurst Road	549	137	705	594	0.925	582	381	50.0	41.7	284.680	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	631	158	444	830	0.760	783	0	41.9	4.0	98.091	F

1 - North	2 - Grovehurst Road	331	83	1049	449	0.738	436	177	32.0	5.9	167.620	F
	3 - A249 onslip (NB)			1154				331				
	4 - B2005 - link	444	111	0	1540	0.288	444	1154	0.4	0.4	3.286	A
	1 - A249 onslip (SB)			607				677				
2 - South	2 - B2005 - link	1156	289	164	1771	0.652	1156	444	2.0	1.9	5.854	A
	3 - A249 offslip (SB)	428	107	1319	445	0.963	442	0	128.6	125.3	1034.835	F
	4 - Swale Way	509	127	460	635	0.801	625	1301	61.2	32.2	272.751	F
	5 - Grovehurst Road	460	115	703	595	0.773	581	381	41.7	11.4	172.017	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.27	0.16	1.22	4.56	5.90			N/A	N/A
	2 - Grovehurst Road	1.24	0.06	0.84	2.63	3.68			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.29	0.00	0.00	0.29	0.29			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.00	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.68	0.03	0.25	1.68	1.68			N/A	N/A
	4 - Swale Way	2.84	0.07	1.12	7.48	11.16			N/A	N/A
	5 - Grovehurst Road	1.84	0.07	1.11	4.21	5.92			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	6.05	0.15	2.79	15.12	20.99			N/A	N/A
	2 - Grovehurst Road	3.53	0.08	1.46	9.23	13.50			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.37	0.00	0.00	0.37	0.37			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.48	0.07	0.96	3.26	4.60			N/A	N/A
	3 - A249 offslip (SB)	9.62	0.03	0.28	9.62	15.19			N/A	N/A
	4 - Swale Way	8.81	0.26	4.91	21.17	28.58			N/A	N/A
	5 - Grovehurst Road	5.33	0.12	2.17	13.60	19.19			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	32.82	9.10	29.04	56.73	66.83			N/A	N/A
	2 - Grovehurst Road	20.82	4.73	17.87	37.14	44.30			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.91	0.03	0.27	1.91	1.91			N/A	N/A
	3 - A249 offslip (SB)	57.99	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	37.83	13.29	34.52	61.49	71.03			N/A	N/A
	5 - Grovehurst Road	28.28	7.87	25.00	48.66	57.28			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	57.44	20.31	52.63	93.83	108.43			N/A	N/A
	2 - Grovehurst Road	37.32	11.64	33.56	62.70	73.17			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.41	0.03	0.30	1.27	1.74			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.98	0.03	0.26	1.98	1.98			N/A	N/A
	3 - A249 offslip (SB)	108.67	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	65.57	29.29	61.77	99.37	112.23			N/A	N/A
	5 - Grovehurst Road	50.02	18.16	45.93	80.90	93.24			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	41.90	14.08	38.06	69.14	80.23			N/A	N/A
	2 - Grovehurst Road	31.96	9.14	28.39	54.77	64.36			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.41	0.00	0.00	0.41	0.41			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.97	0.27	1.19	3.42	4.25			N/A	N/A
	3 - A249 offslip (SB)	128.57	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	61.24	21.89	56.21	99.80	115.24			N/A	N/A
	5 - Grovehurst Road	41.72	11.75	37.07	72.18	85.00			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.95	0.04	0.35	9.04	21.44			N/A	N/A
	2 - Grovehurst Road	5.90	0.07	1.15	16.60	25.50			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.41	0.00	0.00	0.41	0.41			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.90	0.53	1.26	2.88	3.54			N/A	N/A
	3 - A249 offslip (SB)	125.27	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	32.25	5.05	26.44	62.59	76.60			N/A	N/A
	5 - Grovehurst Road	11.41	0.32	6.53	27.51	37.04			N/A	N/A

# 2024, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	208.46	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1529.32	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	813	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	442	100.000
	4 - Swale Way		ONE HOUR	✓	1252	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	633
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	262	521	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	465	322
	3 - A249 offslip (SB)	1	27	0	198	216
	4 - Swale Way	662	431	0	0	159
	5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	20
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	26	1
	3 - A249 offslip (SB)	0	11	0	8	4
	4 - Swale Way	17	2	0	0	3
	5 - Grovehurst Road	0	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.21	388.10	87.6	137.8	F	746	1119
	2 - Grovehurst Road	0.49	13.57	0.9	3.5	B	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.38	3.63	0.6	2.1	A	547	820
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.45	3.76	0.8	1.5	A	749	1123
	3 - A249 offslip (SB)	0.65	13.50	1.8	5.2	B	406	608
	4 - Swale Way	2.19	3677.22	727.1	181.7	F	1149	1723
	5 - Grovehurst Road	0.85	32.51	5.0	26.6	D	490	735

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	612	153	500	806	0.759	600	0	0.0	2.9	16.654	C
	2 - Grovehurst Road	171	43	800	630	0.271	169	300	0.0	0.4	7.792	A

	3 - A249 onslip (NB)			617				353				
	4 - B2005 - link	502	125	0	1591	0.316	500	617	0.0	0.5	3.295	A
2 - South	1 - A249 onslip (SB)			579				489				
	2 - B2005 - link	619	155	79	1770	0.349	616	500	0.0	0.5	3.115	A
	3 - A249 offslip (SB)	333	83	695	923	0.360	331	0	0.0	0.6	6.052	A
	4 - Swale Way	943	236	453	721	1.307	709	572	0.0	58.3	159.833	F
	5 - Grovehurst Road	402	101	671	660	0.609	396	491	0.0	1.5	13.374	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	731	183	542	778	0.940	707	0	2.9	8.8	41.313	E
	2 - Grovehurst Road	204	51	911	555	0.368	203	338	0.4	0.6	10.213	B
	3 - A249 onslip (NB)			730				385				
	4 - B2005 - link	542	135	0	1591	0.341	542	730	0.5	0.5	3.432	A
2 - South	1 - A249 onslip (SB)			634				492				
	2 - B2005 - link	732	183	95	1761	0.415	731	540	0.5	0.7	3.492	A
	3 - A249 offslip (SB)	397	99	826	819	0.485	396	0	0.6	0.9	8.487	A
	4 - Swale Way	1126	281	539	673	1.672	673	682	58.3	171.4	642.020	F
	5 - Grovehurst Road	480	120	650	674	0.712	477	563	1.5	2.3	17.898	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	895	224	594	742	1.206	737	0	8.8	48.4	154.316	F
	2 - Grovehurst Road	250	62	969	518	0.483	249	362	0.6	0.9	13.306	B
	3 - A249 onslip (NB)			793				425				
	4 - B2005 - link	594	149	0	1591	0.374	594	793	0.5	0.6	3.611	A
2 - South	1 - A249 onslip (SB)			706				494				
	2 - B2005 - link	790	198	115	1750	0.452	790	592	0.7	0.8	3.747	A
	3 - A249 offslip (SB)	487	122	905	756	0.644	483	0	0.9	1.7	13.049	B
	4 - Swale Way	1378	345	614	632	2.182	632	774	171.4	358.1	1516.049	F
	5 - Grovehurst Road	588	147	622	693	0.848	579	623	2.3	4.7	29.145	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	895	224	599	739	1.211	738	0	48.4	87.6	337.970	F
	2 - Grovehurst Road	250	62	973	515	0.485	250	364	0.9	0.9	13.568	B
	3 - A249 onslip (NB)			795				428				
	4 - B2005 - link	599	150	0	1591	0.376	599	795	0.6	0.6	3.627	A
2 - South	1 - A249 onslip (SB)			712				495				
	2 - B2005 - link	793	198	116	1749	0.453	793	596	0.8	0.8	3.763	A
	3 - A249 offslip (SB)	487	122	909	753	0.647	486	0	1.7	1.8	13.500	B
	4 - Swale Way	1378	345	617	630	2.188	630	779	358.1	545.2	2489.328	F
	5 - Grovehurst Road	588	147	621	694	0.847	587	626	4.7	5.0	32.511	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	731	183	546	775	0.943	766	0	87.6	78.7	388.101	F
	2 - Grovehurst Road	204	51	960	521	0.392	205	352	0.9	0.7	11.448	B
	3 - A249 onslip (NB)			777				388				
	4 - B2005 - link	546	136	0	1591	0.343	546	777	0.6	0.5	3.448	A
2 - South	1 - A249 onslip (SB)			641				490				
	2 - B2005 - link	781	195	97	1760	0.444	781	543	0.8	0.8	3.677	A
	3 - A249 offslip (SB)	397	99	878	776	0.512	400	0	1.8	1.1	9.650	A
	4 - Swale Way	1126	281	564	660	1.706	660	715	545.2	661.6	3224.325	F
	5 - Grovehurst Road	480	120	641	680	0.706	490	583	5.0	2.5	19.765	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	612	153	499	807	0.758	797	0	78.7	32.4	254.588	F



1 - North	2 - Grovehurst Road	171	43	953	523	0.327	172	343	0.7	0.5	10.271	B
	3 - A249 onslip (NB)			772				352				
	4 - B2005 - link	498	125	0	1591	0.313	499	772	0.5	0.5	3.299	A
2 - South	1 - A249 onslip (SB)			577				484				
	2 - B2005 - link	780	195	81	1769	0.441	780	497	0.8	0.8	3.641	A
	3 - A249 offslip (SB)	333	83	861	789	0.422	334	0	1.1	0.7	7.935	A
	4 - Swale Way	943	236	527	681	1.384	681	668	661.6	727.1	3677.222	F
	5 - Grovehurst Road	402	101	655	671	0.599	406	553	2.5	1.5	13.786	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.91	0.08	1.39	7.35	10.58			N/A	N/A
	2 - Grovehurst Road	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.46	0.00	0.00	0.46	0.46			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.56	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	58.33	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.50	1.05	1.50	1.90	1.95			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	8.77	0.24	4.77	21.27	28.84			N/A	N/A
	2 - Grovehurst Road	0.57	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.71	0.19	0.92	1.39	1.44			N/A	N/A
	3 - A249 offslip (SB)	0.93	0.09	0.90	1.44	1.81			N/A	N/A
	4 - Swale Way	171.42	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.32	0.09	1.42	5.30	7.30			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	48.40	20.91	45.33	73.93	83.76			N/A	N/A
	2 - Grovehurst Road	0.91	0.03	0.26	0.91	0.91			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.25	0.59	0.59			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.82	0.03	0.25	0.82	0.82			N/A	N/A
	3 - A249 offslip (SB)	1.74	0.03	0.28	1.74	5.22			N/A	N/A
	4 - Swale Way	358.13	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.67	0.04	0.43	12.87	24.30			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	87.62	46.62	84.16	124.47	137.83			N/A	N/A
	2 - Grovehurst Road	0.93	0.03	0.28	0.95	3.54			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.03	0.28	0.60	2.14			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.82	0.03	0.27	0.82	1.08			N/A	N/A
	3 - A249 offslip (SB)	1.79	0.03	0.28	1.79	4.43			N/A	N/A
	4 - Swale Way	545.24	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.02	0.03	0.33	9.18	26.61			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	78.75	35.89	74.42	118.72	133.82			N/A	N/A
	2 - Grovehurst Road	0.66	0.09	0.80	1.36	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.80	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.07	0.08	0.92	1.87	2.53			N/A	N/A
	4 - Swale Way	661.64	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.54	0.04	0.43	6.99	12.43			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	32.45	9.45	28.89	55.36	64.95			N/A	N/A
	2 - Grovehurst Road	0.49	0.04	0.44	1.27	1.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.46	0.00	0.00	0.46	0.46			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.79	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.74	0.05	0.49	1.38	1.89			N/A	N/A
	4 - Swale Way	727.07	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.55	0.04	0.35	3.78	7.90			N/A	N/A

# 2024 + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	257.29	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	477.81	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	881	100.000
	2 - Grovehurst Road		ONE HOUR	✓	446	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	592	100.000
	4 - Swale Way		ONE HOUR	✓	677	100.000
	5 - Grovehurst Road		ONE HOUR	✓	736	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	45	0	836
		2 - Grovehurst Road	0	0	25	421
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	151	365	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	144	0	0	885	225
	3 - A249 offslip (SB)	1	18	0	376	197
	4 - Swale Way	375	225	0	0	77
	5 - Grovehurst Road	287	277	0	172	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	13	0	16
	2 - Grovehurst Road	0	0	8	4
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	6	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	15	6
	3 - A249 offslip (SB)	0	6	0	9	4
	4 - Swale Way	37	9	0	0	9
	5 - Grovehurst Road	1	1	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.16	320.57	77.8	130.9	F	808	1213
	2 - Grovehurst Road	1.19	387.15	45.2	84.5	F	409	614
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.29	3.28	0.4	1.7	A	428	642
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.66	5.99	1.9	4.8	A	1123	1684
	3 - A249 offslip (SB)	1.48	1143.80	141.4	200.0	F	543	815
	4 - Swale Way	1.23	504.35	84.1	143.5	F	621	932
	5 - Grovehurst Road	1.33	746.08	131.6	200.0	F	675	1013

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	663	166	378	881	0.753	652	0	0.0	2.8	15.037	C
	2 - Grovehurst Road	336	84	886	555	0.605	330	144	0.0	1.5	15.631	C

	3 - A249 onslip (NB)			930				286				
	4 - B2005 - link	379	95	0	1539	0.246	378	930	0.0	0.3	3.097	A
2 - South	1 - A249 onslip (SB)			508				593				
	2 - B2005 - link	931	233	126	1793	0.519	926	382	0.0	1.1	4.136	A
	3 - A249 offslip (SB)	446	111	1053	651	0.684	438	0	0.0	2.0	16.264	C
	4 - Swale Way	510	127	432	644	0.791	496	1058	0.0	3.4	22.638	C
	5 - Grovehurst Road	554	139	560	700	0.792	541	368	0.0	3.4	21.128	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	792	198	431	844	0.939	768	0	2.8	8.9	38.615	E
	2 - Grovehurst Road	401	100	1033	460	0.872	387	165	1.5	4.9	43.213	E
	3 - A249 onslip (NB)			1094				326				
	4 - B2005 - link	431	108	0	1539	0.280	431	1094	0.3	0.4	3.248	A
2 - South	1 - A249 onslip (SB)			576				681				
	2 - B2005 - link	1095	274	142	1784	0.614	1093	434	1.1	1.6	5.196	A
	3 - A249 offslip (SB)	532	133	1235	510	1.043	483	0	2.0	14.4	81.190	F
	4 - Swale Way	609	152	498	612	0.995	574	1220	3.4	12.1	64.565	F
	5 - Grovehurst Road	662	165	650	634	1.043	608	422	3.4	16.9	77.607	F

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	970	242	440	837	1.159	829	0	8.9	44.1	129.131	F
	2 - Grovehurst Road	491	123	1098	417	1.176	409	171	4.9	25.4	155.660	F
	3 - A249 onslip (NB)			1173				334				
	4 - B2005 - link	440	110	0	1539	0.286	440	1173	0.4	0.4	3.274	A
2 - South	1 - A249 onslip (SB)			585				706				
	2 - B2005 - link	1175	294	142	1784	0.659	1173	443	1.6	1.9	5.885	A
	3 - A249 offslip (SB)	652	163	1316	447	1.457	446	0	14.4	65.8	341.757	F
	4 - Swale Way	745	186	508	606	1.229	603	1254	12.1	47.7	194.483	F
	5 - Grovehurst Road	810	203	683	610	1.329	608	428	16.9	67.5	264.260	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	970	242	440	837	1.159	835	0	44.1	77.8	272.731	F
	2 - Grovehurst Road	491	123	1104	413	1.188	412	172	25.4	45.2	325.360	F
	3 - A249 onslip (NB)			1181				335				
	4 - B2005 - link	440	110	0	1539	0.286	440	1181	0.4	0.4	3.275	A
2 - South	1 - A249 onslip (SB)			585				709				
	2 - B2005 - link	1183	296	142	1784	0.663	1183	443	1.9	1.9	5.986	A
	3 - A249 offslip (SB)	652	163	1325	440	1.481	440	0	65.8	118.7	765.986	F
	4 - Swale Way	745	186	509	606	1.230	605	1256	47.7	82.7	399.548	F
	5 - Grovehurst Road	810	203	686	607	1.334	607	428	67.5	118.3	560.553	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	792	198	440	837	0.946	826	0	77.8	69.2	320.570	F
	2 - Grovehurst Road	401	100	1095	419	0.956	419	171	45.2	40.7	387.150	F
	3 - A249 onslip (NB)			1180				335				
	4 - B2005 - link	440	110	0	1539	0.286	440	1180	0.4	0.4	3.275	A
2 - South	1 - A249 onslip (SB)			585				708				
	2 - B2005 - link	1181	295	142	1784	0.662	1181	443	1.9	1.9	5.969	A
	3 - A249 offslip (SB)	532	133	1323	442	1.205	442	0	118.7	141.4	1068.947	F
	4 - Swale Way	609	152	509	606	1.004	603	1256	82.7	84.1	504.348	F
	5 - Grovehurst Road	662	165	684	609	1.086	609	427	118.3	131.6	746.083	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	663	166	439	838	0.791	826	0	69.2	28.5	216.575	F

1 - North	2 - Grovehurst Road	336	84	1094	420	0.799	410	171	40.7	22.1	280.538	F
	3 - A249 onslip (NB)			1171				333				
	4 - B2005 - link	439	110	0	1539	0.285	439	1171	0.4	0.4	3.270	A
2 - South	1 - A249 onslip (SB)			583				704				
	2 - B2005 - link	1172	293	142	1784	0.657	1172	441	1.9	1.9	5.890	A
	3 - A249 offslip (SB)	446	111	1314	448	0.994	446	0	141.4	141.4	1143.799	F
	4 - Swale Way	510	127	508	607	0.840	599	1252	84.1	61.7	439.383	F
	5 - Grovehurst Road	554	139	680	612	0.905	607	427	131.6	118.2	740.722	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.84	0.08	1.37	7.13	10.27			N/A	N/A
	2 - Grovehurst Road	1.47	0.04	0.39	3.83	6.90			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.07	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	2.04	0.03	0.25	2.04	2.04			N/A	N/A
	4 - Swale Way	3.35	0.04	0.39	8.91	17.64			N/A	N/A
	5 - Grovehurst Road	3.40	0.03	0.27	3.40	3.73			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	8.92	0.25	4.92	21.52	29.08			N/A	N/A
	2 - Grovehurst Road	4.92	0.08	1.34	13.31	19.72			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.57	0.07	1.02	3.47	4.82			N/A	N/A
	3 - A249 offslip (SB)	14.37	0.03	0.30	14.37	55.70			N/A	N/A
	4 - Swale Way	12.06	0.24	6.24	30.24	41.55			N/A	N/A
	5 - Grovehurst Road	16.93	0.08	3.07	49.50	78.12			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	44.09	16.55	40.60	70.42	80.85			N/A	N/A
	2 - Grovehurst Road	25.41	6.94	22.38	43.81	51.64			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.90	0.03	0.27	1.90	1.90			N/A	N/A
	3 - A249 offslip (SB)	65.77	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	47.72	18.08	44.02	76.09	87.32			N/A	N/A
	5 - Grovehurst Road	67.50	19.88	60.50	116.22	136.46			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	77.75	36.19	73.64	116.33	130.86			N/A	N/A
	2 - Grovehurst Road	45.22	17.23	41.73	71.93	82.50			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.30	1.22	1.74			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.94	0.03	0.26	1.94	1.94			N/A	N/A
	3 - A249 offslip (SB)	118.72	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	82.73	42.16	79.10	119.55	133.06			N/A	N/A
	5 - Grovehurst Road	118.31	59.49	113.16	172.38	192.26			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	69.18	26.17	63.97	110.93	127.42			N/A	N/A
	2 - Grovehurst Road	40.65	10.73	35.81	71.39	84.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.95	0.21	1.11	3.51	4.44			N/A	N/A
	3 - A249 offslip (SB)	141.39	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	84.12	38.04	79.45	127.22	143.50			N/A	N/A
	5 - Grovehurst Road	131.56	>199	>199	>199	>199			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	28.48	6.70	24.64	50.96	60.74			N/A	N/A
	2 - Grovehurst Road	22.12	1.26	15.94	48.10	61.53			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.93	0.52	1.27	2.96	3.68			N/A	N/A
	3 - A249 offslip (SB)	141.40	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	61.68	17.55	55.02	107.04	126.04			N/A	N/A
	5 - Grovehurst Road	118.23	>199	>199	>199	>199			N/A	N/A

# 2024 + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	335.18	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1721.50	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	884	100.000
	2 - Grovehurst Road		ONE HOUR	✓	235	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	481	100.000
	4 - Swale Way		ONE HOUR	✓	1252	100.000
	5 - Grovehurst Road		ONE HOUR	✓	595	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	183	0	701
		2 - Grovehurst Road	0	0	27	208
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only



	4 - B2005 - link	0	264	540	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	45	0	0	467	393
	3 - A249 offslip (SB)	1	27	0	198	255
	4 - Swale Way	662	431	0	0	159
	5 - Grovehurst Road	150	339	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	2	0	18
	2 - Grovehurst Road	0	0	0	2
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	9	0	0	26	2
	3 - A249 offslip (SB)	0	11	0	8	3
	4 - Swale Way	17	2	0	0	3
	5 - Grovehurst Road	1	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.31	610.53	134.7	200.0	F	811	1217
	2 - Grovehurst Road	0.51	14.70	1.0	3.6	B	216	323
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.38	3.64	0.6	2.2	A	549	824
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.46	3.81	0.9	1.5	A	777	1166
	3 - A249 offslip (SB)	0.71	16.53	2.4	10.4	C	441	662
	4 - Swale Way	2.38	4298.91	798.5	181.7	F	1149	1723
	5 - Grovehurst Road	0.91	46.89	8.0	42.5	E	546	819

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	666	166	500	814	0.818	650	0	0.0	4.0	20.307	C
	2 - Grovehurst Road	177	44	851	595	0.297	175	299	0.0	0.4	8.544	A

	3 - A249 onslip (NB)			670				356				
	4 - B2005 - link	502	126	0	1590	0.316	500	670	0.0	0.5	3.296	A
2 - South	1 - A249 onslip (SB)			579				497				
	2 - B2005 - link	668	167	79	1776	0.376	665	500	0.0	0.6	3.236	A
	3 - A249 offslip (SB)	362	91	744	891	0.406	359	0	0.0	0.7	6.739	A
	4 - Swale Way	943	236	533	675	1.396	665	570	0.0	69.3	200.556	F
	5 - Grovehurst Road	448	112	635	682	0.657	441	564	0.0	1.8	14.518	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	795	199	542	785	1.012	748	0	4.0	15.6	61.880	F
	2 - Grovehurst Road	211	53	957	525	0.403	210	333	0.4	0.7	11.409	B
	3 - A249 onslip (NB)			779				388				
	4 - B2005 - link	542	136	0	1590	0.341	542	779	0.5	0.5	3.434	A
2 - South	1 - A249 onslip (SB)			635				502				
	2 - B2005 - link	776	194	94	1767	0.439	775	540	0.6	0.8	3.629	A
	3 - A249 offslip (SB)	432	108	869	790	0.547	430	0	0.7	1.2	9.949	A
	4 - Swale Way	1126	281	628	622	1.809	622	672	69.3	195.2	802.309	F
	5 - Grovehurst Road	535	134	607	701	0.763	530	644	1.8	3.0	20.516	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	973	243	596	748	1.301	746	0	15.6	72.4	225.377	F
	2 - Grovehurst Road	259	65	992	505	0.513	257	350	0.7	1.0	14.471	B
	3 - A249 onslip (NB)			819				430				
	4 - B2005 - link	596	149	0	1590	0.375	596	819	0.5	0.6	3.619	A
2 - South	1 - A249 onslip (SB)			707				510				
	2 - B2005 - link	811	203	114	1756	0.462	810	594	0.8	0.9	3.809	A
	3 - A249 offslip (SB)	530	132	924	747	0.709	525	0	1.2	2.3	15.903	C
	4 - Swale Way	1378	345	701	581	2.372	581	748	195.2	394.5	1831.180	F
	5 - Grovehurst Road	655	164	578	720	0.910	639	704	3.0	7.0	38.160	E

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	973	243	603	743	1.310	743	0	72.4	130.1	491.912	F
	2 - Grovehurst Road	259	65	994	503	0.514	259	352	1.0	1.0	14.699	B
	3 - A249 onslip (NB)			818				435				
	4 - B2005 - link	603	151	0	1590	0.379	603	818	0.6	0.6	3.644	A
2 - South	1 - A249 onslip (SB)			716				512				
	2 - B2005 - link	809	202	116	1754	0.461	809	600	0.9	0.9	3.808	A
	3 - A249 offslip (SB)	530	132	925	746	0.710	529	0	2.3	2.4	16.533	C
	4 - Swale Way	1378	345	703	580	2.377	580	752	394.5	594.1	2913.312	F
	5 - Grovehurst Road	655	164	577	721	0.909	651	706	7.0	8.0	46.895	E

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	795	199	553	778	1.022	776	0	130.1	134.7	610.529	F
	2 - Grovehurst Road	211	53	987	505	0.418	212	342	1.0	0.7	12.349	B
	3 - A249 onslip (NB)			804				396				
	4 - B2005 - link	553	138	0	1590	0.348	553	804	0.6	0.5	3.473	A
2 - South	1 - A249 onslip (SB)			649				504				
	2 - B2005 - link	800	200	99	1764	0.454	800	551	0.9	0.8	3.734	A
	3 - A249 offslip (SB)	432	108	899	766	0.564	437	0	2.4	1.3	11.045	B
	4 - Swale Way	1126	281	644	613	1.836	613	691	594.1	722.2	3756.843	F
	5 - Grovehurst Road	535	134	600	705	0.759	553	657	8.0	3.4	25.877	D

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	666	166	501	814	0.818	808	0	134.7	99.1	521.976	F

1 - North	2 - Grovehurst Road	177	44	977	509	0.347	178	332	0.7	0.5	10.887	B
	3 - A249 onslip (NB)			798				357				
	4 - B2005 - link	500	125	0	1590	0.315	501	798	0.5	0.5	3.306	A
2 - South	1 - A249 onslip (SB)			580				492				
	2 - B2005 - link	799	200	81	1774	0.450	799	499	0.8	0.8	3.689	A
	3 - A249 offslip (SB)	362	91	880	781	0.464	364	0	1.3	0.9	8.670	A
	4 - Swale Way	943	236	601	638	1.478	638	643	722.2	798.5	4298.907	F
	5 - Grovehurst Road	448	112	618	694	0.646	454	621	3.4	1.9	15.384	C

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.95	0.04	0.39	10.25	21.19			N/A	N/A
	2 - Grovehurst Road	0.42	0.00	0.00	0.42	0.42			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.46	0.00	0.00	0.46	0.46			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.60	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.68	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	69.27	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.83	0.71	1.38	1.96	2.32			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	15.59	0.37	8.86	38.18	51.63			N/A	N/A
	2 - Grovehurst Road	0.66	0.22	0.94	1.39	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.78	0.21	0.94	1.39	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.18	0.08	0.97	2.14	2.88			N/A	N/A
	4 - Swale Way	195.17	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.96	0.10	1.18	7.05	9.83			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	72.45	35.41	68.94	106.29	118.87			N/A	N/A
	2 - Grovehurst Road	1.02	0.03	0.27	1.02	1.46			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.03	0.25	0.60	0.60			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.03	0.25	0.85	0.85			N/A	N/A
	3 - A249 offslip (SB)	2.30	0.03	0.30	2.30	10.40			N/A	N/A
	4 - Swale Way	394.52	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	6.97	0.07	1.44	20.07	31.95			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	130.07	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.04	0.03	0.28	1.04	3.55			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.03	0.28	0.61	2.19			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.03	0.26	0.85	0.85			N/A	N/A
	3 - A249 offslip (SB)	2.37	0.03	0.28	2.37	6.95			N/A	N/A
	4 - Swale Way	594.14	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	7.95	0.04	0.45	22.07	42.52			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	134.65	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.73	0.08	0.80	1.41	1.49			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.54	0.54	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.33	0.06	0.79	2.95	4.29			N/A	N/A
	4 - Swale Way	722.24	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.42	0.04	0.43	9.48	17.39			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	99.10	43.36	93.33	151.86	171.94			N/A	N/A
	2 - Grovehurst Road	0.54	0.05	0.47	1.31	1.42			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.46	0.00	0.00	0.46	0.46			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.82	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.88	0.04	0.42	1.98	3.19			N/A	N/A
	4 - Swale Way	798.47	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.90	0.03	0.34	4.30	9.96			N/A	N/A

# 2024 + K3 Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	231.93	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	373.34	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	863	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	692	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	821
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	147	327	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	141	0	0	910	183
	3 - A249 offslip (SB)	1	18	0	377	174
	4 - Swale Way	389	226	0	0	77
	5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	7	0	18
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	7	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	16	6
	3 - A249 offslip (SB)	0	6	0	9	4
	4 - Swale Way	39	10	0	0	9
	5 - Grovehurst Road	1	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.15	300.60	72.9	125.1	F	792	1188
	2 - Grovehurst Road	1.16	321.84	39.2	75.7	F	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.29	3.30	0.4	1.7	A	418	627
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.20	2.0	4.9	A	1114	1672
	3 - A249 offslip (SB)	1.49	1134.31	134.5	200.0	F	523	785
	4 - Swale Way	1.21	465.37	80.0	138.6	F	635	952
	5 - Grovehurst Road	1.15	303.49	52.1	95.5	F	561	841

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	650	162	350	887	0.733	639	0	0.0	2.6	14.023	B
	2 - Grovehurst Road	331	83	850	574	0.577	326	140	0.0	1.3	14.239	B

	3 - A249 onslip (NB)			916				260				
	4 - B2005 - link	351	88	0	1530	0.230	350	916	0.0	0.3	3.049	A
2 - South	1 - A249 onslip (SB)			479				543				
	2 - B2005 - link	918	229	127	1780	0.516	914	352	0.0	1.1	4.138	A
	3 - A249 offslip (SB)	429	107	1041	655	0.655	422	0	0.0	1.8	15.028	C
	4 - Swale Way	521	130	383	661	0.788	508	1080	0.0	3.3	21.883	C
	5 - Grovehurst Road	460	115	570	685	0.672	452	321	0.0	1.9	15.022	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	776	194	410	845	0.918	756	0	2.6	7.6	34.371	D
	2 - Grovehurst Road	396	99	1002	474	0.835	385	164	1.3	4.0	36.600	E
	3 - A249 onslip (NB)			1082				305				
	4 - B2005 - link	410	103	0	1530	0.268	410	1082	0.3	0.4	3.215	A
2 - South	1 - A249 onslip (SB)			561				636				
	2 - B2005 - link	1084	271	150	1767	0.614	1082	411	1.1	1.6	5.245	A
	3 - A249 offslip (SB)	512	128	1232	506	1.013	472	0	1.8	11.9	71.617	F
	4 - Swale Way	622	156	444	631	0.985	590	1261	3.3	11.4	60.464	F
	5 - Grovehurst Road	549	137	663	616	0.892	533	370	1.9	5.9	37.919	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	950	238	436	826	1.150	817	0	7.6	40.9	121.432	F
	2 - Grovehurst Road	484	121	1078	423	1.145	412	175	4.0	22.1	136.403	F
	3 - A249 onslip (NB)			1166				324				
	4 - B2005 - link	437	109	0	1530	0.285	436	1166	0.4	0.4	3.292	A
2 - South	1 - A249 onslip (SB)			600				679				
	2 - B2005 - link	1169	292	163	1759	0.665	1168	437	1.6	1.9	6.069	A
	3 - A249 offslip (SB)	628	157	1330	430	1.460	429	0	11.9	61.6	328.415	F
	4 - Swale Way	762	190	452	628	1.214	623	1307	11.4	46.0	181.714	F
	5 - Grovehurst Road	673	168	702	588	1.145	578	373	5.9	29.7	128.942	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	950	238	439	824	1.153	823	0	40.9	72.9	259.440	F
	2 - Grovehurst Road	484	121	1086	418	1.158	416	176	22.1	39.2	282.586	F
	3 - A249 onslip (NB)			1175				327				
	4 - B2005 - link	439	110	0	1530	0.287	439	1175	0.4	0.4	3.301	A
2 - South	1 - A249 onslip (SB)			604				684				
	2 - B2005 - link	1178	295	164	1758	0.670	1178	440	1.9	2.0	6.197	A
	3 - A249 offslip (SB)	628	157	1342	421	1.491	421	0	61.6	113.3	754.943	F
	4 - Swale Way	762	190	452	628	1.214	627	1311	46.0	79.8	373.023	F
	5 - Grovehurst Road	673	168	706	585	1.150	583	373	29.7	52.1	266.368	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	776	194	436	826	0.939	815	0	72.9	63.0	300.602	F
	2 - Grovehurst Road	396	99	1076	425	0.932	414	175	39.2	34.6	321.839	F
	3 - A249 onslip (NB)			1166				324				
	4 - B2005 - link	436	109	0	1530	0.285	436	1166	0.4	0.4	3.290	A
2 - South	1 - A249 onslip (SB)			600				679				
	2 - B2005 - link	1169	292	163	1759	0.664	1169	437	2.0	2.0	6.102	A
	3 - A249 offslip (SB)	512	128	1332	429	1.195	429	0	113.3	134.3	1050.523	F
	4 - Swale Way	622	156	452	627	0.992	621	1308	79.8	80.0	465.371	F
	5 - Grovehurst Road	549	137	700	589	0.933	578	373	52.1	45.0	303.493	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	650	162	435	827	0.786	814	0	63.0	21.9	192.255	F

1 - North	2 - Grovehurst Road	331	83	1075	426	0.778	414	175	34.6	14.0	218.685	F
	3 - A249 onslip (NB)			1165				324				
	4 - B2005 - link	435	109	0	1530	0.285	435	1165	0.4	0.4	3.291	A
2 - South	1 - A249 onslip (SB)			599				677				
	2 - B2005 - link	1168	292	163	1759	0.664	1168	436	2.0	2.0	6.086	A
	3 - A249 offslip (SB)	429	107	1330	430	0.998	428	0	134.3	134.5	1134.310	F
	4 - Swale Way	521	130	452	628	0.830	620	1307	80.0	55.2	394.386	F
	5 - Grovehurst Road	460	115	699	590	0.779	577	373	45.0	15.7	195.374	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.58	0.08	1.39	6.25	8.83			N/A	N/A
	2 - Grovehurst Road	1.31	0.05	0.47	3.28	5.10			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.06	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.81	0.03	0.25	1.81	1.81			N/A	N/A
	4 - Swale Way	3.31	0.04	0.44	9.24	16.45			N/A	N/A
	5 - Grovehurst Road	1.94	0.07	1.03	4.72	6.81			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	7.65	0.18	3.77	19.01	26.21			N/A	N/A
	2 - Grovehurst Road	4.05	0.08	1.02	10.83	16.02			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.57	0.07	1.00	3.50	4.87			N/A	N/A
	3 - A249 offslip (SB)	11.86	0.03	0.29	11.86	31.85			N/A	N/A
	4 - Swale Way	11.41	0.27	6.20	28.09	38.22			N/A	N/A
	5 - Grovehurst Road	5.92	0.14	2.63	14.90	20.81			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	40.94	14.53	37.43	66.44	76.69			N/A	N/A
	2 - Grovehurst Road	22.11	5.26	19.10	39.15	46.57			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.95	0.03	0.27	1.95	1.95			N/A	N/A
	3 - A249 offslip (SB)	61.63	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	46.03	17.56	42.49	73.22	83.97			N/A	N/A
	5 - Grovehurst Road	29.67	8.70	26.41	50.43	59.12			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	72.85	32.44	68.65	110.67	125.05			N/A	N/A
	2 - Grovehurst Road	39.19	12.81	35.46	65.09	75.69			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.30	1.26	1.70			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.00	0.03	0.26	2.00	2.00			N/A	N/A
	3 - A249 offslip (SB)	113.33	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	79.81	40.04	76.18	116.02	129.37			N/A	N/A
	5 - Grovehurst Road	52.14	19.78	48.14	83.21	95.49			N/A	N/A



## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	62.99	22.97	57.95	102.04	117.59			N/A	N/A
	2 - Grovehurst Road	34.59	7.83	29.83	62.72	75.01			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.20	1.13	3.66	4.65			N/A	N/A
	3 - A249 offslip (SB)	134.26	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	79.96	34.91	75.21	122.39	138.57			N/A	N/A
	5 - Grovehurst Road	44.99	12.90	40.09	77.61	91.27			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	21.89	3.09	17.67	42.73	52.52			N/A	N/A
	2 - Grovehurst Road	13.99	0.89	9.55	31.03	40.15			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.52	1.31	3.07	3.80			N/A	N/A
	3 - A249 offslip (SB)	134.48	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	55.22	13.89	48.43	98.56	117.11			N/A	N/A
	5 - Grovehurst Road	15.66	1.39	11.36	33.42	42.53			N/A	N/A

# 2024 + K3 Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	254.75	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1657.79	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	828	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	443	100.000
	4 - Swale Way		ONE HOUR	✓	1277	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	648
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	262	522	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	480	322
	3 - A249 offslip (SB)	1	27	0	199	216
	4 - Swale Way	686	432	0	0	159
	5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	22
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	4	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	28	1
	3 - A249 offslip (SB)	0	11	0	8	4
	4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.25	467.32	101.4	157.9	F	760	1140
	2 - Grovehurst Road	0.49	13.78	0.9	3.5	B	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.64	0.6	2.2	A	539	809
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.46	3.83	0.8	1.5	A	752	1127
	3 - A249 offslip (SB)	0.65	13.84	1.8	5.8	B	407	610
	4 - Swale Way	2.25	3927.96	771.1	179.2	F	1172	1758
	5 - Grovehurst Road	0.85	33.46	5.2	27.6	D	490	735

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	623	156	492	798	0.781	610	0	0.0	3.2	18.082	C
	2 - Grovehurst Road	171	43	805	618	0.276	169	297	0.0	0.4	7.992	A

	3 - A249 onslip (NB)			627				348				
	4 - B2005 - link	494	123	0	1580	0.313	492	627	0.0	0.5	3.302	A
2 - South	1 - A249 onslip (SB)			572				490				
	2 - B2005 - link	630	158	79	1750	0.360	628	493	0.0	0.6	3.201	A
	3 - A249 offslip (SB)	334	83	706	908	0.367	331	0	0.0	0.6	6.218	A
	4 - Swale Way	961	240	453	711	1.351	701	584	0.0	65.2	179.281	F
	5 - Grovehurst Road	402	101	666	657	0.612	396	488	0.0	1.5	13.497	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	744	186	534	770	0.966	714	0	3.2	10.8	48.303	E
	2 - Grovehurst Road	204	51	914	543	0.376	203	334	0.4	0.6	10.558	B
	3 - A249 onslip (NB)			738				379				
	4 - B2005 - link	534	133	0	1580	0.338	534	738	0.5	0.5	3.439	A
2 - South	1 - A249 onslip (SB)			628				493				
	2 - B2005 - link	741	185	95	1741	0.426	741	533	0.6	0.7	3.596	A
	3 - A249 offslip (SB)	398	100	835	804	0.495	397	0	0.6	1.0	8.808	A
	4 - Swale Way	1148	287	538	665	1.727	665	694	65.2	186.0	709.102	F
	5 - Grovehurst Road	480	120	644	672	0.714	477	559	1.5	2.3	18.085	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	912	228	586	734	1.241	730	0	10.8	56.1	178.772	F
	2 - Grovehurst Road	250	62	962	513	0.487	249	355	0.6	0.9	13.547	B
	3 - A249 onslip (NB)			791				420				
	4 - B2005 - link	587	147	0	1580	0.371	586	791	0.5	0.6	3.622	A
2 - South	1 - A249 onslip (SB)			701				496				
	2 - B2005 - link	789	197	115	1730	0.456	789	586	0.7	0.8	3.822	A
	3 - A249 offslip (SB)	488	122	904	750	0.651	484	0	1.0	1.8	13.410	B
	4 - Swale Way	1406	352	607	627	2.244	627	781	186.0	380.8	1634.776	F
	5 - Grovehurst Road	588	147	618	690	0.852	578	615	2.3	4.8	29.803	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	912	228	591	731	1.247	730	0	56.1	101.4	392.448	F
	2 - Grovehurst Road	250	62	965	511	0.489	250	356	0.9	0.9	13.781	B
	3 - A249 onslip (NB)			792				423				
	4 - B2005 - link	591	148	0	1580	0.374	591	792	0.6	0.6	3.639	A
2 - South	1 - A249 onslip (SB)			707				497				
	2 - B2005 - link	790	198	116	1729	0.457	790	590	0.8	0.8	3.833	A
	3 - A249 offslip (SB)	488	122	907	747	0.653	488	0	1.8	1.8	13.836	B
	4 - Swale Way	1406	352	609	625	2.249	625	785	380.8	576.0	2651.787	F
	5 - Grovehurst Road	588	147	618	690	0.852	586	617	4.8	5.2	33.461	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	744	186	539	767	0.971	759	0	101.4	97.7	467.322	F
	2 - Grovehurst Road	204	51	953	516	0.395	205	345	0.9	0.7	11.617	B
	3 - A249 onslip (NB)			775				383				
	4 - B2005 - link	539	135	0	1580	0.341	539	775	0.6	0.5	3.457	A
2 - South	1 - A249 onslip (SB)			635				492				
	2 - B2005 - link	779	195	97	1740	0.448	780	538	0.8	0.8	3.752	A
	3 - A249 offslip (SB)	398	100	877	770	0.517	401	0	1.8	1.1	9.841	A
	4 - Swale Way	1148	287	557	654	1.754	654	721	576.0	699.4	3435.158	F
	5 - Grovehurst Road	480	120	637	677	0.709	490	575	5.2	2.6	20.208	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	623	156	492	799	0.781	791	0	97.7	55.9	351.810	F

1 - North	2 - Grovehurst Road	171	43	946	518	0.330	172	336	0.7	0.5	10.420	B
	3 - A249 onslip (NB)			770				348				
	4 - B2005 - link	491	123	0	1580	0.311	492	770	0.5	0.5	3.309	A
2 - South	1 - A249 onslip (SB)			571				486				
	2 - B2005 - link	780	195	81	1749	0.446	780	491	0.8	0.8	3.716	A
	3 - A249 offslip (SB)	334	83	860	782	0.426	335	0	1.1	0.8	8.076	A
	4 - Swale Way	961	240	521	675	1.425	675	674	699.4	771.1	3927.961	F
	5 - Grovehurst Road	402	101	651	668	0.602	406	545	2.6	1.6	13.977	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.25	0.05	0.78	9.02	14.40			N/A	N/A
	2 - Grovehurst Road	0.38	0.00	0.00	0.38	0.38			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.56	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.57	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	65.19	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.52	1.05	1.50	1.90	1.95			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.75	0.28	5.95	26.19	35.48			N/A	N/A
	2 - Grovehurst Road	0.59	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.74	0.20	0.93	1.39	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.96	0.09	0.92	1.55	1.88			N/A	N/A
	4 - Swale Way	185.99	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.35	0.09	1.42	5.38	7.42			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	56.07	25.91	52.95	83.78	94.26			N/A	N/A
	2 - Grovehurst Road	0.92	0.03	0.26	0.92	0.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.25	0.59	0.59			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.83	0.03	0.25	0.83	0.83			N/A	N/A
	3 - A249 offslip (SB)	1.79	0.03	0.28	1.79	5.78			N/A	N/A
	4 - Swale Way	380.85	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.78	0.04	0.44	13.29	24.69			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	101.36	58.00	98.08	139.76	153.40			N/A	N/A
	2 - Grovehurst Road	0.94	0.03	0.28	0.94	3.50			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.03	0.28	0.65	2.19			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.03	0.26	0.84	0.87			N/A	N/A
	3 - A249 offslip (SB)	1.84	0.03	0.28	1.84	4.52			N/A	N/A
	4 - Swale Way	576.03	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.15	0.03	0.34	9.90	27.63			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	97.68	49.49	93.43	141.70	157.86			N/A	N/A
	2 - Grovehurst Road	0.67	0.08	0.79	1.37	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.82	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.09	0.07	0.90	1.95	2.72			N/A	N/A
	4 - Swale Way	699.42	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.59	0.04	0.43	7.14	12.70			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	55.88	18.36	50.73	93.19	108.39			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.45	1.28	1.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.75	0.05	0.48	1.48	1.98			N/A	N/A
	4 - Swale Way	771.06	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.57	0.03	0.35	3.82	8.02			N/A	N/A

# 2024 + K3 and WKN Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	253.02	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	397.60	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	871	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	701	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	829
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	147	327	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	141	0	0	918	183
	3 - A249 offslip (SB)	1	18	0	377	174
	4 - Swale Way	398	226	0	0	77
	5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	7	0	19
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	7	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	17	6
	3 - A249 offslip (SB)	0	6	0	9	4
	4 - Swale Way	41	10	0	0	9
	5 - Grovehurst Road	1	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.17	335.56	79.4	132.2	F	799	1199
	2 - Grovehurst Road	1.16	329.00	39.8	76.5	F	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.28	3.29	0.4	1.7	A	415	622
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.28	2.0	5.0	A	1113	1670
	3 - A249 offslip (SB)	1.50	1171.76	138.2	186.3	F	523	785
	4 - Swale Way	1.24	527.84	91.0	152.5	F	643	965
	5 - Grovehurst Road	1.15	314.99	53.3	96.8	F	561	841

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	656	164	349	880	0.745	645	0	0.0	2.7	14.696	B
	2 - Grovehurst Road	331	83	855	567	0.584	326	139	0.0	1.4	14.627	B



	3 - A249 onslip (NB)			921				260				
	4 - B2005 - link	351	88	0	1530	0.229	349	921	0.0	0.3	3.048	A
2 - South	1 - A249 onslip (SB)			478				549				
	2 - B2005 - link	923	231	127	1768	0.522	918	351	0.0	1.1	4.218	A
	3 - A249 offslip (SB)	429	107	1046	646	0.664	422	0	0.0	1.9	15.548	C
	4 - Swale Way	528	132	382	655	0.806	513	1085	0.0	3.6	23.493	C
	5 - Grovehurst Road	460	115	575	677	0.680	452	320	0.0	2.0	15.519	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	783	196	408	840	0.933	760	0	2.7	8.5	37.368	E
	2 - Grovehurst Road	396	99	1005	468	0.846	384	163	1.4	4.3	38.551	E
	3 - A249 onslip (NB)			1085				303				
	4 - B2005 - link	408	102	0	1530	0.267	408	1085	0.3	0.4	3.208	A
2 - South	1 - A249 onslip (SB)			558				639				
	2 - B2005 - link	1087	272	150	1755	0.620	1085	409	1.1	1.6	5.359	A
	3 - A249 offslip (SB)	512	128	1235	498	1.029	468	0	1.9	13.0	77.246	F
	4 - Swale Way	630	158	442	626	1.007	592	1262	3.6	13.3	67.781	F
	5 - Grovehurst Road	549	137	665	610	0.901	532	368	2.0	6.3	39.861	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	959	240	432	823	1.166	815	0	8.5	44.5	131.180	F
	2 - Grovehurst Road	484	121	1074	422	1.149	411	173	4.3	22.6	139.736	F
	3 - A249 onslip (NB)			1164				321				
	4 - B2005 - link	432	108	0	1530	0.282	432	1164	0.4	0.4	3.278	A
2 - South	1 - A249 onslip (SB)			595				679				
	2 - B2005 - link	1166	291	162	1748	0.667	1164	433	1.6	2.0	6.154	A
	3 - A249 offslip (SB)	628	157	1327	427	1.471	425	0	13.0	63.5	343.252	F
	4 - Swale Way	772	193	448	623	1.239	620	1304	13.3	51.2	202.629	F
	5 - Grovehurst Road	673	168	698	586	1.149	576	370	6.3	30.4	132.574	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	959	240	434	821	1.168	820	0	44.5	79.4	282.087	F
	2 - Grovehurst Road	484	121	1080	418	1.160	415	174	22.6	39.8	287.685	F
	3 - A249 onslip (NB)			1172				323				
	4 - B2005 - link	434	109	0	1530	0.284	434	1172	0.4	0.4	3.286	A
2 - South	1 - A249 onslip (SB)			599				683				
	2 - B2005 - link	1174	293	164	1747	0.672	1174	436	2.0	2.0	6.276	A
	3 - A249 offslip (SB)	628	157	1337	418	1.500	418	0	63.5	115.9	777.959	F
	4 - Swale Way	772	193	448	623	1.239	623	1308	51.2	88.6	415.478	F
	5 - Grovehurst Road	673	168	701	583	1.153	581	369	30.4	53.3	272.895	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	783	196	432	823	0.952	813	0	79.4	71.9	335.559	F
	2 - Grovehurst Road	396	99	1071	423	0.934	413	173	39.8	35.4	328.996	F
	3 - A249 onslip (NB)			1163				321				
	4 - B2005 - link	432	108	0	1530	0.282	432	1163	0.4	0.4	3.280	A
2 - South	1 - A249 onslip (SB)			594				679				
	2 - B2005 - link	1165	291	162	1748	0.666	1165	433	2.0	2.0	6.177	A
	3 - A249 offslip (SB)	512	128	1327	427	1.201	426	0	115.9	137.4	1080.073	F
	4 - Swale Way	630	158	448	623	1.012	621	1305	88.6	91.0	527.845	F
	5 - Grovehurst Road	549	137	699	585	0.939	574	370	53.3	47.0	314.987	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	656	164	431	823	0.796	812	0	71.9	32.8	235.586	F

1 - North	2 - Grovehurst Road	331	83	1070	424	0.781	412	173	35.4	15.2	227.705	F
	3 - A249 onslip (NB)			1162				321				
	4 - B2005 - link	431	108	0	1530	0.282	431	1162	0.4	0.4	3.275	A
	1 - A249 onslip (SB)			594				677				
2 - South	2 - B2005 - link	1164	291	162	1748	0.666	1164	432	2.0	2.0	6.166	A
	3 - A249 offslip (SB)	429	107	1326	427	1.005	426	0	137.4	138.2	1171.756	F
	4 - Swale Way	528	132	448	623	0.847	616	1304	91.0	68.8	468.088	F
	5 - Grovehurst Road	460	115	695	588	0.782	576	369	47.0	18.1	209.204	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.74	0.07	1.14	7.15	10.64			N/A	N/A
	2 - Grovehurst Road	1.35	0.05	0.46	3.44	5.46			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.08	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.88	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	3.63	0.04	0.38	9.39	19.38			N/A	N/A
	5 - Grovehurst Road	2.01	0.06	0.98	4.97	7.31			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	8.49	0.19	4.22	21.21	29.23			N/A	N/A
	2 - Grovehurst Road	4.28	0.08	1.21	11.40	16.75			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.60	0.07	1.02	3.60	4.99			N/A	N/A
	3 - A249 offslip (SB)	12.98	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	13.26	0.26	6.97	33.23	45.57			N/A	N/A
	5 - Grovehurst Road	6.25	0.15	2.88	15.66	21.75			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	44.49	16.81	41.00	70.90	81.37			N/A	N/A
	2 - Grovehurst Road	22.57	5.49	19.57	39.80	47.27			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.97	0.03	0.27	1.97	1.97			N/A	N/A
	3 - A249 offslip (SB)	63.52	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	51.23	19.76	47.40	81.39	93.30			N/A	N/A
	5 - Grovehurst Road	30.40	9.14	27.16	51.38	60.12			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	79.35	37.67	75.31	117.81	132.18			N/A	N/A
	2 - Grovehurst Road	39.82	13.27	36.13	65.84	76.47			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.30	1.26	1.65			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.02	0.03	0.26	2.02	2.02			N/A	N/A
	3 - A249 offslip (SB)	115.88	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	88.56	46.15	84.90	126.95	140.97			N/A	N/A
	5 - Grovehurst Road	53.26	20.64	49.32	84.52	96.85			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	71.95	27.85	66.72	114.54	131.25			N/A	N/A
	2 - Grovehurst Road	35.45	8.18	30.65	64.04	76.52			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.01	0.18	1.10	3.77	4.82			N/A	N/A
	3 - A249 offslip (SB)	137.36	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	90.97	42.76	86.30	135.74	152.50			N/A	N/A
	5 - Grovehurst Road	47.03	13.89	42.07	80.51	94.43			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	32.83	8.07	28.60	58.39	69.42			N/A	N/A
	2 - Grovehurst Road	15.15	0.96	10.38	33.65	43.52			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.01	0.49	1.31	3.20	3.90			N/A	N/A
	3 - A249 offslip (SB)	138.17	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	68.83	21.66	62.23	116.46	135.99			N/A	N/A
	5 - Grovehurst Road	18.08	1.87	14.01	36.55	45.53			N/A	N/A

# 2024 + K3 and WKN Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	259.45	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1729.63	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	832	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	444	100.000
	4 - Swale Way		ONE HOUR	✓	1298	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	652
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	262	523	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	484	322
	3 - A249 offslip (SB)	1	27	0	200	216
	4 - Swale Way	706	433	0	0	159
	5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	22
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	29	1
	3 - A249 offslip (SB)	0	11	0	8	4
	4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.25	474.13	102.9	160.2	F	763	1145
	2 - Grovehurst Road	0.49	13.77	0.9	3.5	B	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.61	0.6	2.2	A	540	810
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.46	3.86	0.8	1.4	A	750	1125
	3 - A249 offslip (SB)	0.66	14.00	1.9	6.0	B	407	611
	4 - Swale Way	2.28	4063.43	799.0	179.0	F	1191	1787
	5 - Grovehurst Road	0.85	33.88	5.2	28.1	D	490	735

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	626	157	492	800	0.783	613	0	0.0	3.3	18.159	C
	2 - Grovehurst Road	171	43	809	618	0.277	169	297	0.0	0.4	7.998	A

	3 - A249 onslip (NB)			630				348				
	4 - B2005 - link	494	123	0	1591	0.311	492	630	0.0	0.4	3.271	A
2 - South	1 - A249 onslip (SB)			569				495				
	2 - B2005 - link	630	157	79	1741	0.362	628	490	0.0	0.6	3.227	A
	3 - A249 offslip (SB)	334	84	706	905	0.369	332	0	0.0	0.6	6.253	A
	4 - Swale Way	977	244	452	711	1.373	701	586	0.0	69.0	188.846	F
	5 - Grovehurst Road	402	101	667	655	0.613	396	486	0.0	1.5	13.576	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	748	187	534	772	0.969	717	0	3.3	11.0	48.840	E
	2 - Grovehurst Road	204	51	918	543	0.376	203	333	0.4	0.6	10.567	B
	3 - A249 onslip (NB)			741				380				
	4 - B2005 - link	534	134	0	1591	0.336	534	741	0.4	0.5	3.407	A
2 - South	1 - A249 onslip (SB)			625				498				
	2 - B2005 - link	740	185	95	1732	0.428	740	530	0.6	0.7	3.627	A
	3 - A249 offslip (SB)	399	100	834	801	0.498	398	0	0.6	1.0	8.884	A
	4 - Swale Way	1167	292	536	665	1.754	665	696	69.0	194.4	742.833	F
	5 - Grovehurst Road	480	120	645	671	0.716	477	556	1.5	2.4	18.205	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	916	229	587	736	1.244	732	0	11.0	56.9	180.819	F
	2 - Grovehurst Road	250	62	965	513	0.487	249	354	0.6	0.9	13.540	B
	3 - A249 onslip (NB)			793				421				
	4 - B2005 - link	588	147	0	1591	0.369	587	793	0.5	0.6	3.588	A
2 - South	1 - A249 onslip (SB)			698				500				
	2 - B2005 - link	787	197	115	1721	0.458	787	583	0.7	0.8	3.853	A
	3 - A249 offslip (SB)	489	122	902	748	0.654	486	0	1.0	1.8	13.559	B
	4 - Swale Way	1429	357	605	627	2.278	627	783	194.4	394.9	1696.764	F
	5 - Grovehurst Road	588	147	620	688	0.854	578	612	2.4	4.8	30.089	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	916	229	592	733	1.250	732	0	56.9	102.9	397.085	F
	2 - Grovehurst Road	250	62	968	511	0.489	250	356	0.9	0.9	13.771	B
	3 - A249 onslip (NB)			794				424				
	4 - B2005 - link	592	148	0	1591	0.372	592	794	0.6	0.6	3.605	A
2 - South	1 - A249 onslip (SB)			704				501				
	2 - B2005 - link	788	197	116	1720	0.458	788	588	0.8	0.8	3.864	A
	3 - A249 offslip (SB)	489	122	905	745	0.656	489	0	1.8	1.9	13.995	B
	4 - Swale Way	1429	357	607	626	2.283	626	786	394.9	595.6	2738.762	F
	5 - Grovehurst Road	588	147	619	689	0.853	586	614	4.8	5.2	33.876	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	748	187	540	768	0.974	761	0	102.9	99.6	474.133	F
	2 - Grovehurst Road	204	51	956	516	0.395	205	345	0.9	0.7	11.613	B
	3 - A249 onslip (NB)			777				384				
	4 - B2005 - link	539	135	0	1591	0.339	540	777	0.6	0.5	3.425	A
2 - South	1 - A249 onslip (SB)			632				497				
	2 - B2005 - link	778	194	97	1730	0.449	778	535	0.8	0.8	3.781	A
	3 - A249 offslip (SB)	399	100	875	768	0.520	402	0	1.9	1.1	9.923	A
	4 - Swale Way	1167	292	555	655	1.781	655	722	595.6	723.6	3548.707	F
	5 - Grovehurst Road	480	120	639	676	0.711	490	571	5.2	2.6	20.407	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	626	157	492	801	0.782	793	0	99.6	58.1	360.232	F

1 - North	2 - Grovehurst Road	171	43	949	518	0.330	172	336	0.7	0.5	10.420	B
	3 - A249 onslip (NB)			772				348				
	4 - B2005 - link	492	123	0	1591	0.309	492	772	0.5	0.4	3.276	A
2 - South	1 - A249 onslip (SB)			568				490				
	2 - B2005 - link	778	194	81	1740	0.447	778	488	0.8	0.8	3.743	A
	3 - A249 offslip (SB)	334	84	859	780	0.429	336	0	1.1	0.8	8.129	A
	4 - Swale Way	977	244	518	675	1.447	675	676	723.6	799.0	4063.433	F
	5 - Grovehurst Road	402	101	652	666	0.604	406	541	2.6	1.6	14.059	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.28	0.05	0.71	9.16	14.75			N/A	N/A
	2 - Grovehurst Road	0.38	0.00	0.00	0.38	0.38			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.56	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.58	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	68.97	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.53	1.05	1.50	1.90	1.95			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.96	0.28	6.07	26.71	36.18			N/A	N/A
	2 - Grovehurst Road	0.59	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.74	0.21	0.93	1.39	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.97	0.09	0.92	1.58	1.91			N/A	N/A
	4 - Swale Way	194.40	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.36	0.09	1.43	5.42	7.48			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	56.90	26.42	53.78	84.91	95.50			N/A	N/A
	2 - Grovehurst Road	0.92	0.03	0.26	0.92	0.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.58	0.03	0.25	0.58	0.58			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.03	0.25	0.84	0.84			N/A	N/A
	3 - A249 offslip (SB)	1.81	0.03	0.28	1.81	6.01			N/A	N/A
	4 - Swale Way	394.86	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.83	0.04	0.44	13.49	24.90			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	102.86	59.20	99.59	141.49	155.20			N/A	N/A
	2 - Grovehurst Road	0.94	0.03	0.28	0.94	3.49			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.28	0.69	2.21			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.03	0.26	0.84	0.84			N/A	N/A
	3 - A249 offslip (SB)	1.86	0.03	0.28	1.86	4.62			N/A	N/A
	4 - Swale Way	595.63	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.22	0.03	0.34	10.22	28.05			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	99.62	50.96	95.38	143.98	160.23			N/A	N/A
	2 - Grovehurst Road	0.67	0.08	0.79	1.37	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.82	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.11	0.07	0.90	1.98	2.78			N/A	N/A
	4 - Swale Way	723.59	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.61	0.04	0.43	7.20	12.82			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	58.07	19.29	52.81	96.59	112.23			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.45	1.28	1.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.76	0.05	0.48	1.51	2.04			N/A	N/A
	4 - Swale Way	799.02	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.58	0.03	0.35	3.83	8.08			N/A	N/A



# 2024 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	309.80	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	516.84	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	906	100.000
	2 - Grovehurst Road		ONE HOUR	✓	446	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	593	100.000
	4 - Swale Way		ONE HOUR	✓	694	100.000
	5 - Grovehurst Road		ONE HOUR	✓	736	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	45	0	861
		2 - Grovehurst Road	0	0	25	421
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	151	366	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	144	0	0	910	225
		3 - A249 offslip (SB)	1	18	0	377	197
		4 - Swale Way	391	226	0	0	77
5 - Grovehurst Road	287	277	0	172	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	13	0	17
		2 - Grovehurst Road	0	0	8	4
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	4	6	0		

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	2	0	0	16	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	39	10	0	0	9
5 - Grovehurst Road	1	1	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.20	409.50	95.1	157.5	F	831	1247
	2 - Grovehurst Road	1.19	404.72	46.7	87.3	F	409	614
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.28	3.26	0.4	1.7	A	425	637
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.07	2.0	5.0	A	1125	1688
	3 - A249 offslip (SB)	1.49	1203.05	147.7	186.5	F	544	816
	4 - Swale Way	1.27	604.90	102.4	167.5	F	637	955
	5 - Grovehurst Road	1.34	773.65	135.9	200.0	F	675	1013

## Main Results for each time segment

07:15 - 07:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	682	171	379	873	0.781	669	0	0.0	3.3	16.707	C
	2 - Grovehurst Road	336	84	904	539	0.623	329	144	0.0	1.6	16.705	C
	3 - A249 onslip (NB)			947				287				
	4 - B2005 - link	380	95	0	1539	0.247	379	947	0.0	0.3	3.100	A
2 - South	1 - A249 onslip (SB)			507				603				
	2 - B2005 - link	947	237	126	1781	0.532	943	381	0.0	1.1	4.273	A
	3 - A249 offslip (SB)	446	112	1069	634	0.704	438	0	0.0	2.2	17.629	C
	4 - Swale Way	522	131	431	636	0.822	507	1075	0.0	3.9	25.450	D
	5 - Grovehurst Road	554	139	571	686	0.807	539	367	0.0	3.7	22.652	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	814	204	428	839	0.971	782	0	3.3	11.5	46.703	E
	2 - Grovehurst Road	401	100	1046	447	0.896	385	164	1.6	5.6	48.577	E
	3 - A249 onslip (NB)			1106				324				
	4 - B2005 - link	428	107	0	1539	0.278	428	1106	0.3	0.4	3.239	A
2 - South	1 - A249 onslip (SB)			570				686				
	2 - B2005 - link	1107	277	141	1772	0.624	1105	429	1.1	1.6	5.374	A
	3 - A249 offslip (SB)	533	133	1245	496	1.074	474	0	2.2	16.9	93.325	F
	4 - Swale Way	624	156	491	606	1.029	579	1228	3.9	15.3	77.025	F
	5 - Grovehurst Road	662	165	654	625	1.059	602	416	3.7	18.6	84.404	F

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	998	249	435	833	1.197	828	0	11.5	53.8	155.166	F
	2 - Grovehurst Road	491	123	1096	414	1.185	407	168	5.6	26.6	164.438	F
	3 - A249 onslip (NB)			1172				331				
	4 - B2005 - link	435	109	0	1539	0.283	435	1172	0.4	0.4	3.261	A
2 - South	1 - A249 onslip (SB)			578				706				
	2 - B2005 - link	1172	293	141	1772	0.662	1171	436	1.6	1.9	5.979	A
	3 - A249 offslip (SB)	653	163	1313	443	1.473	442	0	16.9	69.5	369.694	F
	4 - Swale Way	764	191	499	603	1.268	600	1256	15.3	56.2	229.514	F
	5 - Grovehurst Road	810	203	680	606	1.337	605	420	18.6	70.1	278.202	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	998	249	436	833	1.197	832	0	53.8	95.1	331.237	F
	2 - Grovehurst Road	491	123	1099	412	1.192	410	169	26.6	46.7	338.107	F
	3 - A249 onslip (NB)			1178				331				
	4 - B2005 - link	436	109	0	1539	0.283	436	1178	0.4	0.4	3.261	A
2 - South	1 - A249 onslip (SB)			578				708				
	2 - B2005 - link	1179	295	141	1772	0.665	1179	437	1.9	2.0	6.065	A
	3 - A249 offslip (SB)	653	163	1320	437	1.493	437	0	69.5	123.4	805.316	F
	4 - Swale Way	764	191	499	602	1.269	602	1258	56.2	96.8	468.665	F
	5 - Grovehurst Road	810	203	682	604	1.341	604	419	70.1	121.6	581.238	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	814	204	436	833	0.977	825	0	95.1	92.5	409.497	F
	2 - Grovehurst Road	401	100	1092	417	0.962	417	168	46.7	42.8	404.717	F
	3 - A249 onslip (NB)			1177				332				
	4 - B2005 - link	436	109	0	1539	0.283	436	1177	0.4	0.4	3.261	A
2 - South	1 - A249 onslip (SB)			578				708				
	2 - B2005 - link	1177	294	141	1772	0.664	1177	437	2.0	2.0	6.049	A
	3 - A249 offslip (SB)	533	133	1318	439	1.215	439	0	123.4	147.0	1117.684	F
	4 - Swale Way	624	156	499	602	1.036	601	1258	96.8	102.4	604.898	F
	5 - Grovehurst Road	662	165	681	605	1.094	605	420	121.6	135.9	773.651	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	682	171	434	834	0.818	825	0	92.5	56.7	327.377	F
	2 - Grovehurst Road	336	84	1092	417	0.805	407	168	42.8	24.8	303.040	F
	3 - A249 onslip (NB)			1169				330				
	4 - B2005 - link	434	109	0	1539	0.282	434	1169	0.4	0.4	3.259	A
2 - South	1 - A249 onslip (SB)			576				704				
	2 - B2005 - link	1170	292	141	1772	0.660	1170	435	2.0	2.0	5.979	A
	3 - A249 offslip (SB)	446	112	1311	445	1.004	444	0	147.0	147.7	1203.052	F
	4 - Swale Way	522	131	499	603	0.867	597	1255	102.4	83.9	563.033	F
	5 - Grovehurst Road	554	139	676	608	0.911	604	419	135.9	123.5	773.448	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.28	0.05	0.50	9.21	15.27			N/A	N/A
	2 - Grovehurst Road	1.57	0.04	0.38	4.05	7.70			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.13	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	2.23	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	3.92	0.03	0.33	7.65	20.99			N/A	N/A
	5 - Grovehurst Road	3.67	0.03	0.27	3.67	3.67			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	11.51	0.29	6.39	28.12	38.12			N/A	N/A
	2 - Grovehurst Road	5.60	0.10	1.83	14.92	21.71			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.64	0.07	1.05	3.65	5.04			N/A	N/A
	3 - A249 offslip (SB)	16.90	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	15.25	0.22	7.23	39.65	55.46			N/A	N/A
	5 - Grovehurst Road	18.63	0.09	3.69	54.35	85.15			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	53.77	22.48	50.21	83.17	94.54			N/A	N/A
	2 - Grovehurst Road	26.58	7.47	23.51	45.53	53.55			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.92	0.03	0.27	1.92	1.92			N/A	N/A
	3 - A249 offslip (SB)	69.53	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	56.24	20.81	51.80	90.58	104.22			N/A	N/A
	5 - Grovehurst Road	70.08	19.83	62.51	122.01	143.79			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	95.05	50.02	91.23	135.72	150.48			N/A	N/A
	2 - Grovehurst Road	46.74	18.31	43.29	73.74	84.36			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.30	1.22	1.70			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.96	0.03	0.26	1.96	1.96			N/A	N/A
	3 - A249 offslip (SB)	123.43	>199	>199	>199	>199			N/A	N/A

	4 - Swale Way	96.79	50.92	92.90	138.24	153.30			N/A	N/A
	5 - Grovehurst Road	121.65	>199	>199	>199	>199			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	92.53	42.14	87.50	139.73	157.55			N/A	N/A
	2 - Grovehurst Road	42.77	11.96	37.97	74.14	87.34			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.97	0.18	1.06	3.67	4.70			N/A	N/A
	3 - A249 offslip (SB)	147.02	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	102.45	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	135.93	>199	>199	>199	>199			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	56.70	15.12	50.13	99.94	118.30			N/A	N/A
	2 - Grovehurst Road	24.85	1.76	18.36	53.12	67.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.96	0.45	1.26	3.10	3.84			N/A	N/A
	3 - A249 offslip (SB)	147.74	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	83.89	31.23	77.50	135.44	155.84			N/A	N/A
	5 - Grovehurst Road	123.46	>199	>199	>199	>199			N/A	N/A

# 2024 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	391.51	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1852.62	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	899	100.000
	2 - Grovehurst Road		ONE HOUR	✓	235	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	482	100.000
	4 - Swale Way		ONE HOUR	✓	1278	100.000
	5 - Grovehurst Road		ONE HOUR	✓	595	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	183	0	716
		2 - Grovehurst Road	0	0	27	208
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	264	541	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	45	0	0	482	393
		3 - A249 offslip (SB)	1	27	0	199	255
		4 - Swale Way	687	432	0	0	159
5 - Grovehurst Road	150	339	0	106	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	2	0	20
		2 - Grovehurst Road	0	0	0	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	0	3	0		

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	9	0	0	29	2
		3 - A249 offslip (SB)	0	11	0	8	3
		4 - Swale Way	19	3	0	0	3
5 - Grovehurst Road	1	2	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.35	702.80	156.2	200.0	F	825	1237
	2 - Grovehurst Road	0.52	14.88	1.1	3.5	B	216	323
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.38	3.63	0.6	2.2	A	546	819
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.47	3.89	0.9	1.5	A	775	1162
	3 - A249 offslip (SB)	0.72	16.99	2.4	11.0	C	442	663
	4 - Swale Way	2.44	4550.59	840.9	179.2	F	1173	1759
	5 - Grovehurst Road	0.91	48.89	8.3	43.6	E	546	819

## Main Results for each time segment

16:15 - 16:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	677	169	496	806	0.840	659	0	0.0	4.5	22.374	C
	2 - Grovehurst Road	177	44	858	584	0.303	175	297	0.0	0.4	8.762	A
	3 - A249 onslip (NB)			680				353				
	4 - B2005 - link	497	124	0	1590	0.313	496	680	0.0	0.5	3.282	A
2 - South	1 - A249 onslip (SB)			572				498				
	2 - B2005 - link	676	169	78	1749	0.387	674	494	0.0	0.6	3.342	A
	3 - A249 offslip (SB)	363	91	752	876	0.414	360	0	0.0	0.7	6.944	A
	4 - Swale Way	962	241	532	666	1.444	658	580	0.0	76.1	221.625	F
	5 - Grovehurst Road	448	112	630	679	0.659	441	560	0.0	1.8	14.665	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	808	202	538	776	1.041	749	0	4.5	19.3	72.827	F
	2 - Grovehurst Road	211	53	958	517	0.409	210	329	0.4	0.7	11.692	B
	3 - A249 onslip (NB)			783				386				
	4 - B2005 - link	539	135	0	1590	0.339	538	783	0.5	0.5	3.422	A
2 - South	1 - A249 onslip (SB)			629				504				
	2 - B2005 - link	777	194	94	1740	0.447	777	535	0.6	0.8	3.736	A
	3 - A249 offslip (SB)	433	108	871	779	0.556	431	0	0.7	1.2	10.288	B
	4 - Swale Way	1149	287	623	616	1.864	616	679	76.1	209.2	872.036	F
	5 - Grovehurst Road	535	134	603	698	0.766	530	637	1.8	3.0	20.842	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	990	247	593	740	1.338	738	0	19.3	82.2	260.015	F
	2 - Grovehurst Road	259	65	986	501	0.516	257	345	0.7	1.0	14.663	B
	3 - A249 onslip (NB)			816				428				
	4 - B2005 - link	593	148	0	1590	0.373	593	816	0.5	0.6	3.608	A
2 - South	1 - A249 onslip (SB)			702				512				
	2 - B2005 - link	805	201	114	1729	0.466	805	589	0.8	0.9	3.893	A
	3 - A249 offslip (SB)	531	133	918	742	0.715	526	0	1.2	2.4	16.349	C
	4 - Swale Way	1407	352	692	578	2.434	578	753	209.2	416.5	1951.241	F
	5 - Grovehurst Road	655	164	576	716	0.915	638	694	3.0	7.2	39.327	E

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	990	247	600	735	1.348	734	0	82.2	146.1	558.720	F
	2 - Grovehurst Road	259	65	988	500	0.517	259	346	1.0	1.1	14.876	B
	3 - A249 onslip (NB)			814				433				
	4 - B2005 - link	600	150	0	1590	0.377	600	814	0.6	0.6	3.634	A
2 - South	1 - A249 onslip (SB)			712				515				
	2 - B2005 - link	803	201	116	1728	0.465	803	596	0.9	0.9	3.891	A
	3 - A249 offslip (SB)	531	133	919	742	0.716	530	0	2.4	2.4	16.988	C
	4 - Swale Way	1407	352	694	577	2.438	577	756	416.5	624.0	3076.535	F
	5 - Grovehurst Road	655	164	575	717	0.914	651	695	7.2	8.3	48.894	E

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	808	202	551	768	1.052	768	0	146.1	156.2	702.804	F
	2 - Grovehurst Road	211	53	981	502	0.421	212	337	1.1	0.7	12.494	B
	3 - A249 onslip (NB)			799				394				
	4 - B2005 - link	550	138	0	1590	0.346	551	799	0.6	0.5	3.465	A
2 - South	1 - A249 onslip (SB)			645				507				
	2 - B2005 - link	795	199	99	1738	0.457	795	546	0.9	0.8	3.817	A
	3 - A249 offslip (SB)	433	108	893	761	0.569	438	0	2.4	1.4	11.270	B
	4 - Swale Way	1149	287	635	610	1.885	610	696	624.0	758.8	3968.539	F
	5 - Grovehurst Road	535	134	598	701	0.763	554	647	8.3	3.5	26.900	D

## 17:30 - 17:45



Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	677	169	498	804	0.841	799	0	156.2	125.6	635.580	F
	2 - Grovehurst Road	177	44	971	506	0.350	178	326	0.7	0.5	11.005	B
	3 - A249 onslip (NB)			794				355				
	4 - B2005 - link	497	124	0	1590	0.313	498	794	0.5	0.5	3.297	A
2 - South	1 - A249 onslip (SB)			574				495				
	2 - B2005 - link	793	198	81	1747	0.454	793	493	0.8	0.8	3.772	A
	3 - A249 offslip (SB)	363	91	874	775	0.468	365	0	1.4	0.9	8.809	A
	4 - Swale Way	962	241	592	634	1.518	634	647	758.8	840.9	4550.590	F
	5 - Grovehurst Road	448	112	615	690	0.650	454	611	3.5	1.9	15.679	C

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.49	0.03	0.34	9.18	24.25			N/A	N/A
	2 - Grovehurst Road	0.43	0.00	0.00	0.43	0.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.63	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.70	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	76.08	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.85	0.71	1.39	1.98	2.43			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	19.30	0.40	10.87	47.76	64.81			N/A	N/A
	2 - Grovehurst Road	0.68	0.24	0.94	1.39	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.80	0.22	0.94	1.40	1.46			N/A	N/A
	3 - A249 offslip (SB)	1.22	0.08	0.99	2.30	2.99			N/A	N/A
	4 - Swale Way	209.24	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.01	0.10	1.21	7.19	9.99			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	82.23	39.80	78.22	121.26	135.79			N/A	N/A
	2 - Grovehurst Road	1.03	0.03	0.27	1.03	1.10			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.25	0.59	0.59			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.86	0.03	0.25	0.86	0.86			N/A	N/A
	3 - A249 offslip (SB)	2.37	0.03	0.30	2.59	10.98			N/A	N/A
	4 - Swale Way	416.49	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	7.21	0.07	1.16	20.67	32.45			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	146.10	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.05	0.03	0.28	1.05	3.52			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.03	0.28	0.66	2.22			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.87	0.03	0.26	0.87	0.87			N/A	N/A
	3 - A249 offslip (SB)	2.44	0.03	0.28	2.44	7.34			N/A	N/A

	4 - Swale Way	623.97	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	8.29	0.05	0.47	23.34	43.65			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	156.23	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.74	0.08	0.79	1.07	1.07			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.36	0.06	0.74	3.10	4.57			N/A	N/A
	4 - Swale Way	758.80	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.52	0.04	0.43	9.75	17.88			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	125.64	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.55	0.05	0.47	1.32	1.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.46	0.00	0.00	0.46	0.46			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.90	0.04	0.41	2.07	3.39			N/A	N/A
	4 - Swale Way	840.93	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.93	0.03	0.34	4.37	10.15			N/A	N/A

# 2024 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	333.48	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	542.52	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	914	100.000
	2 - Grovehurst Road		ONE HOUR	✓	446	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	593	100.000
	4 - Swale Way		ONE HOUR	✓	703	100.000
	5 - Grovehurst Road		ONE HOUR	✓	736	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	45	0	869
		2 - Grovehurst Road	0	0	25	421
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	151	366	0

## Demand (Veh/hr)

2 - South	From		To				
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	144	0	0	918	225
		3 - A249 offslip (SB)	1	18	0	377	197
		4 - Swale Way	400	226	0	0	77
5 - Grovehurst Road	287	277	0	172	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From		To			
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	13	0	18
		2 - Grovehurst Road	0	0	8	4
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	4	6	0		

## Heavy Vehicle Percentages

2 - South	From		To				
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	2	0	0	17	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	41	10	0	0	9
5 - Grovehurst Road	1	1	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.21	448.13	102.3	169.3	F	839	1258
	2 - Grovehurst Road	1.19	411.69	47.3	88.8	F	409	614
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.28	3.25	0.4	1.7	A	421	632
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.14	2.0	5.2	A	1124	1685
	3 - A249 offslip (SB)	1.50	1237.30	151.3	186.5	F	544	816
	4 - Swale Way	1.29	673.04	114.6	185.0	F	645	968
	5 - Grovehurst Road	1.34	791.02	138.2	200.0	F	675	1013

## Main Results for each time segment

07:15 - 07:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	688	172	378	867	0.794	674	0	0.0	3.5	17.610	C
	2 - Grovehurst Road	336	84	909	533	0.631	329	144	0.0	1.6	17.216	C
	3 - A249 onslip (NB)			952				286				
	4 - B2005 - link	379	95	0	1539	0.246	378	952	0.0	0.3	3.098	A
2 - South	1 - A249 onslip (SB)			506				608				
	2 - B2005 - link	952	238	126	1769	0.538	947	381	0.0	1.2	4.355	A
	3 - A249 offslip (SB)	446	112	1073	626	0.714	437	0	0.0	2.3	18.317	C
	4 - Swale Way	529	132	431	630	0.840	512	1080	0.0	4.3	27.494	D
	5 - Grovehurst Road	554	139	576	679	0.817	539	367	0.0	3.9	23.667	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	822	205	424	834	0.985	784	0	3.5	12.8	50.777	F
	2 - Grovehurst Road	401	100	1046	443	0.906	384	163	1.6	5.9	50.860	F
	3 - A249 onslip (NB)			1108				322				
	4 - B2005 - link	424	106	0	1539	0.276	424	1108	0.3	0.4	3.229	A
2 - South	1 - A249 onslip (SB)			566				687				
	2 - B2005 - link	1108	277	140	1761	0.629	1106	426	1.2	1.7	5.477	A
	3 - A249 offslip (SB)	533	133	1246	490	1.088	470	0	2.3	18.1	99.097	F
	4 - Swale Way	632	158	488	602	1.050	579	1228	4.3	17.6	86.034	F
	5 - Grovehurst Road	662	165	654	620	1.067	599	413	3.9	19.6	88.335	F

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1006	252	431	830	1.213	826	0	12.8	58.0	167.385	F
	2 - Grovehurst Road	491	123	1090	413	1.188	406	166	5.9	27.0	168.020	F
	3 - A249 onslip (NB)			1169				328				
	4 - B2005 - link	431	108	0	1539	0.280	431	1169	0.4	0.4	3.247	A
2 - South	1 - A249 onslip (SB)			573				706				
	2 - B2005 - link	1169	292	141	1761	0.664	1168	432	1.7	1.9	6.057	A
	3 - A249 offslip (SB)	653	163	1309	440	1.482	440	0	18.1	71.4	384.320	F
	4 - Swale Way	774	194	495	598	1.293	597	1253	17.6	61.9	254.538	F
	5 - Grovehurst Road	810	203	676	604	1.342	603	416	19.6	71.5	286.027	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1006	252	431	830	1.213	829	0	58.0	102.3	357.160	F
	2 - Grovehurst Road	491	123	1093	411	1.194	410	167	27.0	47.3	343.224	F
	3 - A249 onslip (NB)			1175				328				
	4 - B2005 - link	431	108	0	1539	0.280	431	1175	0.4	0.4	3.248	A
2 - South	1 - A249 onslip (SB)			573				707				
	2 - B2005 - link	1175	294	141	1761	0.667	1175	432	1.9	2.0	6.139	A
	3 - A249 offslip (SB)	653	163	1316	435	1.501	435	0	71.4	125.9	827.196	F
	4 - Swale Way	774	194	495	598	1.294	598	1255	61.9	106.0	516.220	F
	5 - Grovehurst Road	810	203	678	603	1.345	602	415	71.5	123.5	592.615	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	822	205	431	830	0.990	822	0	102.3	102.3	448.127	F
	2 - Grovehurst Road	401	100	1086	416	0.964	415	166	47.3	43.9	411.693	F
	3 - A249 onslip (NB)			1173				328				
	4 - B2005 - link	431	108	0	1539	0.280	431	1173	0.4	0.4	3.248	A
2 - South	1 - A249 onslip (SB)			573				707				
	2 - B2005 - link	1172	293	141	1761	0.666	1172	432	2.0	2.0	6.112	A
	3 - A249 offslip (SB)	533	133	1313	437	1.219	437	0	125.9	149.9	1144.636	F
	4 - Swale Way	632	158	495	598	1.056	598	1255	106.0	114.6	673.039	F
	5 - Grovehurst Road	662	165	677	603	1.097	603	416	123.5	138.2	788.340	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	688	172	430	831	0.828	823	0	102.3	68.7	375.586	F
	2 - Grovehurst Road	336	84	1086	416	0.807	407	166	43.9	26.2	314.387	F
	3 - A249 onslip (NB)			1166				327				
	4 - B2005 - link	430	107	0	1539	0.279	430	1166	0.4	0.4	3.243	A
2 - South	1 - A249 onslip (SB)			571				704				
	2 - B2005 - link	1166	292	141	1761	0.662	1166	431	2.0	2.0	6.055	A
	3 - A249 offslip (SB)	446	112	1307	442	1.010	441	0	149.9	151.3	1237.298	F
	4 - Swale Way	529	132	495	598	0.884	593	1253	114.6	98.6	647.529	F
	5 - Grovehurst Road	554	139	673	606	0.914	602	415	138.2	126.2	791.020	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.50	0.04	0.44	9.81	17.53			N/A	N/A
	2 - Grovehurst Road	1.62	0.04	0.37	4.16	7.99			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.15	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	2.32	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	4.34	0.03	0.31	5.44	20.89			N/A	N/A
	5 - Grovehurst Road	3.85	0.03	0.27	3.85	3.85			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	12.84	0.31	7.13	31.52	42.76			N/A	N/A
	2 - Grovehurst Road	5.90	0.10	2.04	15.64	22.61			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.67	0.07	1.07	3.73	5.19			N/A	N/A
	3 - A249 offslip (SB)	18.08	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	17.59	0.19	7.51	47.01	66.90			N/A	N/A
	5 - Grovehurst Road	19.59	0.09	3.99	57.10	89.18			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	57.98	24.83	54.32	89.08	101.05			N/A	N/A
	2 - Grovehurst Road	27.05	7.68	23.95	46.22	54.30			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.94	0.03	0.27	1.94	1.94			N/A	N/A
	3 - A249 offslip (SB)	71.41	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	61.95	21.59	56.69	101.72	117.72			N/A	N/A
	5 - Grovehurst Road	71.52	19.73	63.59	125.34	148.02			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	102.31	55.67	98.53	144.12	159.17			N/A	N/A
	2 - Grovehurst Road	47.35	18.73	43.90	74.50	85.16			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.30	1.22	1.66			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.98	0.03	0.26	1.98	1.98			N/A	N/A
	3 - A249 offslip (SB)	125.94	>199	>199	>199	>199			N/A	N/A

	<b>4 - Swale Way</b>	105.98	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	123.50	>199	>199	>199	>199			N/A	N/A

**08:15 - 08:30**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	102.31	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	43.91	12.68	39.16	75.56	88.80			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.39	0.00	0.00	0.39	0.39			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	1.98	0.16	1.04	3.77	4.84			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	149.95	>199	>199	>199	>199			N/A	N/A
	<b>4 - Swale Way</b>	114.58	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	138.23	>199	>199	>199	>199			N/A	N/A

**08:30 - 08:45**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	68.65	20.77	61.75	117.36	137.47			N/A	N/A
	<b>2 - Grovehurst Road</b>	26.19	2.10	19.65	55.41	70.04			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.39	0.00	0.00	0.39	0.39			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	1.97	0.40	1.26	3.22	3.93			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	151.29	>199	>199	>199	>199			N/A	N/A
	<b>4 - Swale Way</b>	98.59	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	126.23	>199	>199	>199	>199			N/A	N/A

# 2024 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	410.85	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1930.73	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	903	100.000
	2 - Grovehurst Road		ONE HOUR	✓	235	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	482	100.000
	4 - Swale Way		ONE HOUR	✓	1298	100.000
	5 - Grovehurst Road		ONE HOUR	✓	595	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -



1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	183	0	720
		2 - Grovehurst Road	0	0	27	208
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	264	542	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	45	0	0	486	393
		3 - A249 offslip (SB)	1	27	0	199	255
		4 - Swale Way	706	433	0	0	159
5 - Grovehurst Road	150	339	0	106	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	2	0	21
		2 - Grovehurst Road	0	0	0	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	0	3	0		

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	9	0	0	29	2
		3 - A249 offslip (SB)	0	11	0	8	3
		4 - Swale Way	19	3	0	0	3
5 - Grovehurst Road	1	2	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.36	732.82	163.1	200.0	F	829	1243
	2 - Grovehurst Road	0.52	14.94	1.1	3.5	B	216	323
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.38	3.62	0.6	2.2	A	543	815
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.47	3.91	0.9	1.5	A	779	1168
	3 - A249 offslip (SB)	0.72	17.19	2.5	11.2	C	442	663
	4 - Swale Way	2.48	4704.58	869.3	179.0	F	1191	1787
	5 - Grovehurst Road	0.92	49.32	8.4	43.9	E	546	819

## Main Results for each time segment

16:15 - 16:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	680	170	492	802	0.847	661	0	0.0	4.7	23.121	C
	2 - Grovehurst Road	177	44	858	581	0.305	175	295	0.0	0.4	8.838	A
	3 - A249 onslip (NB)			682				351				
	4 - B2005 - link	494	124	0	1590	0.311	492	682	0.0	0.4	3.272	A
2 - South	1 - A249 onslip (SB)			569				502				
	2 - B2005 - link	683	171	78	1748	0.391	680	490	0.0	0.6	3.363	A
	3 - A249 offslip (SB)	363	91	759	870	0.417	360	0	0.0	0.7	7.023	A
	4 - Swale Way	977	244	534	665	1.470	657	585	0.0	80.1	233.254	F
	5 - Grovehurst Road	448	112	630	679	0.660	441	560	0.0	1.9	14.701	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	812	203	535	773	1.050	748	0	4.7	20.6	76.658	F
	2 - Grovehurst Road	211	53	957	515	0.410	210	327	0.4	0.7	11.784	B
	3 - A249 onslip (NB)			783				384				
	4 - B2005 - link	536	134	0	1590	0.337	535	783	0.4	0.5	3.412	A
2 - South	1 - A249 onslip (SB)			626				507				
	2 - B2005 - link	782	196	94	1739	0.450	782	532	0.6	0.8	3.758	A
	3 - A249 offslip (SB)	433	108	876	775	0.559	431	0	0.7	1.2	10.412	B
	4 - Swale Way	1167	292	624	615	1.896	615	684	80.1	218.0	912.232	F
	5 - Grovehurst Road	535	134	603	697	0.767	530	636	1.9	3.0	20.920	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	994	249	590	736	1.350	735	0	20.6	85.4	271.835	F
	2 - Grovehurst Road	259	65	983	500	0.517	257	342	0.7	1.0	14.731	B
	3 - A249 onslip (NB)			814				426				
	4 - B2005 - link	590	148	0	1590	0.371	590	814	0.5	0.6	3.598	A
2 - South	1 - A249 onslip (SB)			699				516				
	2 - B2005 - link	808	202	114	1728	0.467	808	586	0.8	0.9	3.908	A
	3 - A249 offslip (SB)	531	133	921	739	0.718	526	0	1.2	2.4	16.539	C
	4 - Swale Way	1429	357	692	578	2.474	578	756	218.0	430.8	2023.244	F
	5 - Grovehurst Road	655	164	577	715	0.916	638	693	3.0	7.3	39.574	E

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	994	249	597	731	1.360	731	0	85.4	151.2	580.757	F
	2 - Grovehurst Road	259	65	985	499	0.518	259	344	1.0	1.1	14.943	B
	3 - A249 onslip (NB)			812				431				
	4 - B2005 - link	597	149	0	1590	0.376	597	812	0.6	0.6	3.624	A
2 - South	1 - A249 onslip (SB)			709				518				
	2 - B2005 - link	806	201	116	1727	0.466	806	593	0.9	0.9	3.906	A
	3 - A249 offslip (SB)	531	133	922	739	0.718	530	0	2.4	2.5	17.190	C
	4 - Swale Way	1429	357	693	577	2.477	577	759	430.8	643.9	3175.972	F
	5 - Grovehurst Road	655	164	576	716	0.915	651	694	7.3	8.4	49.325	E

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	812	203	548	765	1.062	764	0	151.2	163.1	732.823	F
	2 - Grovehurst Road	211	53	978	501	0.422	213	334	1.1	0.7	12.548	B
	3 - A249 onslip (NB)			797				393				
	4 - B2005 - link	548	137	0	1590	0.344	548	797	0.6	0.5	3.456	A
2 - South	1 - A249 onslip (SB)			642				511				
	2 - B2005 - link	797	199	99	1737	0.459	797	543	0.9	0.9	3.834	A
	3 - A249 offslip (SB)	433	108	896	759	0.571	438	0	2.5	1.4	11.368	B
	4 - Swale Way	1167	292	635	609	1.915	609	699	643.9	783.3	4097.854	F
	5 - Grovehurst Road	535	134	599	700	0.764	554	645	8.4	3.5	27.127	D

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	680	170	495	801	0.849	796	0	163.1	134.0	672.600	F
	2 - Grovehurst Road	177	44	967	504	0.351	178	323	0.7	0.5	11.045	B
	3 - A249 onslip (NB)			792				353				
	4 - B2005 - link	494	124	0	1590	0.311	495	792	0.5	0.5	3.285	A
2 - South	1 - A249 onslip (SB)			571				498				
	2 - B2005 - link	797	199	81	1747	0.456	797	490	0.9	0.8	3.788	A
	3 - A249 offslip (SB)	363	91	877	772	0.470	365	0	1.4	0.9	8.874	A
	4 - Swale Way	977	244	592	633	1.543	633	650	783.3	869.3	4704.584	F
	5 - Grovehurst Road	448	112	616	689	0.650	454	609	3.5	1.9	15.742	C

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.68	0.03	0.33	8.54	24.81			N/A	N/A
	2 - Grovehurst Road	0.43	0.00	0.00	0.43	0.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.64	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.71	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	80.12	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.85	0.71	1.39	1.99	2.45			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	20.60	0.40	11.50	51.19	69.57			N/A	N/A
	2 - Grovehurst Road	0.68	0.25	0.94	1.39	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.22	0.94	1.40	1.46			N/A	N/A
	3 - A249 offslip (SB)	1.24	0.08	0.99	2.35	3.06			N/A	N/A
	4 - Swale Way	218.00	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.02	0.10	1.21	7.21	10.02			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	85.40	40.94	81.16	126.41	141.69			N/A	N/A
	2 - Grovehurst Road	1.04	0.03	0.27	1.04	1.17			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.25	0.59	0.59			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.87	0.03	0.25	0.87	0.87			N/A	N/A
	3 - A249 offslip (SB)	2.40	0.03	0.30	2.72	11.21			N/A	N/A
	4 - Swale Way	430.84	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	7.26	0.07	1.21	20.78	32.54			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	151.18	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.06	0.03	0.28	1.06	3.52			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.03	0.28	0.70	2.25			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.87	0.03	0.26	0.87	0.87			N/A	N/A
	3 - A249 offslip (SB)	2.47	0.03	0.28	2.47	7.52			N/A	N/A

	4 - Swale Way	643.90	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	8.36	0.05	0.47	23.60	43.87			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	163.05	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.75	0.08	0.79	1.13	1.13			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.37	0.06	0.73	3.17	4.67			N/A	N/A
	4 - Swale Way	783.33	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.54	0.04	0.43	9.81	17.98			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	134.04	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.55	0.05	0.47	1.32	1.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.90	0.04	0.41	2.11	3.47			N/A	N/A
	4 - Swale Way	869.34	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.94	0.03	0.34	4.38	10.20			N/A	N/A

# 2031, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	184.04	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	328.34	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	838	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	569	100.000
	4 - Swale Way		ONE HOUR	✓	676	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	796
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	147	326	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	141	0	0	885	183
	3 - A249 offslip (SB)	1	18	0	376	174
	4 - Swale Way	374	225	0	0	77
	5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	7	0	17
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	6	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	15	6
	3 - A249 offslip (SB)	0	6	0	9	4
	4 - Swale Way	36	9	0	0	9
	5 - Grovehurst Road	1	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.12	220.97	57.4	108.4	F	769	1153
	2 - Grovehurst Road	1.15	298.50	37.3	73.2	F	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.29	3.30	0.4	1.7	A	424	636
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.11	2.0	4.6	A	1108	1662
	3 - A249 offslip (SB)	1.48	1034.84	128.6	200.0	F	522	783
	4 - Swale Way	1.17	365.54	65.6	115.2	F	620	930
	5 - Grovehurst Road	1.14	284.68	50.0	93.2	F	561	841

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	631	158	351	895	0.705	622	0	0.0	2.3	12.775	B
	2 - Grovehurst Road	331	83	832	590	0.561	326	140	0.0	1.2	13.393	B

	3 - A249 onslip (NB)			898				260				
	4 - B2005 - link	352	88	0	1540	0.229	351	898	0.0	0.3	3.025	A
2 - South	1 - A249 onslip (SB)			479				533				
	2 - B2005 - link	901	225	127	1792	0.503	897	352	0.0	1.0	4.003	A
	3 - A249 offslip (SB)	428	107	1024	673	0.637	422	0	0.0	1.7	13.983	B
	4 - Swale Way	509	127	383	673	0.756	498	1063	0.0	2.8	19.440	C
	5 - Grovehurst Road	460	115	560	699	0.658	453	321	0.0	1.8	14.210	B

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	753	188	414	851	0.885	738	0	2.3	6.1	28.641	D
	2 - Grovehurst Road	396	99	986	490	0.807	386	166	1.2	3.5	32.227	D
	3 - A249 onslip (NB)			1066				307				
	4 - B2005 - link	414	103	0	1540	0.269	414	1066	0.3	0.4	3.197	A
2 - South	1 - A249 onslip (SB)			564				629				
	2 - B2005 - link	1069	267	151	1779	0.601	1067	414	1.0	1.5	5.041	A
	3 - A249 offslip (SB)	512	128	1217	524	0.977	480	0	1.7	9.6	59.703	F
	4 - Swale Way	608	152	449	640	0.949	584	1249	2.8	8.8	49.568	E
	5 - Grovehurst Road	549	137	658	628	0.874	535	375	1.8	5.3	34.489	D

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	923	231	444	829	1.112	816	0	6.1	32.8	100.640	F
	2 - Grovehurst Road	484	121	1081	428	1.132	415	179	3.5	20.8	127.599	F
	3 - A249 onslip (NB)			1166				330				
	4 - B2005 - link	444	111	0	1540	0.289	444	1166	0.4	0.4	3.286	A
2 - South	1 - A249 onslip (SB)			608				681				
	2 - B2005 - link	1171	293	164	1771	0.661	1169	444	1.5	1.9	5.957	A
	3 - A249 offslip (SB)	626	157	1333	435	1.441	433	0	9.6	58.0	301.133	F
	4 - Swale Way	744	186	460	635	1.172	628	1305	8.8	37.8	150.258	F
	5 - Grovehurst Road	673	168	707	592	1.136	581	381	5.3	28.3	122.229	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	923	231	448	827	1.116	824	0	32.8	57.4	208.500	F
	2 - Grovehurst Road	484	121	1091	421	1.151	418	180	20.8	37.3	267.696	F
	3 - A249 onslip (NB)			1178				332				
	4 - B2005 - link	448	112	0	1540	0.291	448	1178	0.4	0.4	3.296	A
2 - South	1 - A249 onslip (SB)			612				686				
	2 - B2005 - link	1182	295	165	1771	0.668	1182	448	1.9	2.0	6.107	A
	3 - A249 offslip (SB)	626	157	1347	424	1.478	424	0	58.0	108.7	714.975	F
	4 - Swale Way	744	186	460	635	1.173	633	1310	37.8	65.6	306.303	F
	5 - Grovehurst Road	673	168	713	588	1.144	586	381	28.3	50.0	254.342	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	753	188	444	830	0.908	816	0	57.4	41.9	220.970	F
	2 - Grovehurst Road	396	99	1081	428	0.924	417	179	37.3	32.0	298.497	F
	3 - A249 onslip (NB)			1168				330				
	4 - B2005 - link	444	111	0	1540	0.288	444	1168	0.4	0.4	3.284	A
2 - South	1 - A249 onslip (SB)			608				680				
	2 - B2005 - link	1172	293	164	1771	0.662	1172	444	2.0	2.0	6.010	A
	3 - A249 offslip (SB)	512	128	1336	432	1.184	432	0	108.7	128.6	997.300	F
	4 - Swale Way	608	152	461	635	0.958	625	1307	65.6	61.2	365.536	F
	5 - Grovehurst Road	549	137	705	594	0.925	582	381	50.0	41.7	284.680	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	631	158	444	830	0.760	783	0	41.9	4.0	98.091	F

1 - North	2 - Grovehurst Road	331	83	1049	449	0.738	436	177	32.0	5.9	167.620	F
	3 - A249 onslip (NB)			1154				331				
	4 - B2005 - link	444	111	0	1540	0.288	444	1154	0.4	0.4	3.286	A
	1 - A249 onslip (SB)			607				677				
2 - South	2 - B2005 - link	1156	289	164	1771	0.652	1156	444	2.0	1.9	5.854	A
	3 - A249 offslip (SB)	428	107	1319	445	0.963	442	0	128.6	125.3	1034.835	F
	4 - Swale Way	509	127	460	635	0.801	625	1301	61.2	32.2	272.751	F
	5 - Grovehurst Road	460	115	703	595	0.773	581	381	41.7	11.4	172.017	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.27	0.16	1.22	4.56	5.90			N/A	N/A
	2 - Grovehurst Road	1.24	0.06	0.84	2.63	3.68			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.29	0.00	0.00	0.29	0.29			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.00	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.68	0.03	0.25	1.68	1.68			N/A	N/A
	4 - Swale Way	2.84	0.07	1.12	7.48	11.16			N/A	N/A
	5 - Grovehurst Road	1.84	0.07	1.11	4.21	5.92			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	6.05	0.15	2.79	15.12	20.99			N/A	N/A
	2 - Grovehurst Road	3.53	0.08	1.46	9.23	13.50			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.37	0.00	0.00	0.37	0.37			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.48	0.07	0.96	3.26	4.60			N/A	N/A
	3 - A249 offslip (SB)	9.62	0.03	0.28	9.62	15.19			N/A	N/A
	4 - Swale Way	8.81	0.26	4.91	21.17	28.58			N/A	N/A
	5 - Grovehurst Road	5.33	0.12	2.17	13.60	19.19			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	32.82	9.10	29.04	56.73	66.83			N/A	N/A
	2 - Grovehurst Road	20.82	4.73	17.87	37.14	44.30			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.91	0.03	0.27	1.91	1.91			N/A	N/A
	3 - A249 offslip (SB)	57.99	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	37.83	13.29	34.52	61.49	71.03			N/A	N/A
	5 - Grovehurst Road	28.28	7.87	25.00	48.66	57.28			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	57.44	20.31	52.63	93.83	108.43			N/A	N/A
	2 - Grovehurst Road	37.32	11.64	33.56	62.70	73.17			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.41	0.03	0.30	1.27	1.74			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.98	0.03	0.26	1.98	1.98			N/A	N/A
	3 - A249 offslip (SB)	108.67	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	65.57	29.29	61.77	99.37	112.23			N/A	N/A
	5 - Grovehurst Road	50.02	18.16	45.93	80.90	93.24			N/A	N/A



## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	41.90	14.08	38.06	69.14	80.23			N/A	N/A
	2 - Grovehurst Road	31.96	9.14	28.39	54.77	64.36			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.41	0.00	0.00	0.41	0.41			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.97	0.27	1.19	3.42	4.25			N/A	N/A
	3 - A249 offslip (SB)	128.57	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	61.24	21.89	56.21	99.80	115.24			N/A	N/A
	5 - Grovehurst Road	41.72	11.75	37.07	72.18	85.00			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.95	0.04	0.35	9.04	21.44			N/A	N/A
	2 - Grovehurst Road	5.90	0.07	1.15	16.60	25.50			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.41	0.00	0.00	0.41	0.41			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.90	0.53	1.26	2.88	3.54			N/A	N/A
	3 - A249 offslip (SB)	125.27	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	32.25	5.05	26.44	62.59	76.60			N/A	N/A
	5 - Grovehurst Road	11.41	0.32	6.53	27.51	37.04			N/A	N/A

# 2031, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	208.46	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1529.32	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	813	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	442	100.000
	4 - Swale Way		ONE HOUR	✓	1252	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	633
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	262	521	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	465	322
	3 - A249 offslip (SB)	1	27	0	198	216
	4 - Swale Way	662	431	0	0	159
	5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	20
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	26	1
	3 - A249 offslip (SB)	0	11	0	8	4
	4 - Swale Way	17	2	0	0	3
	5 - Grovehurst Road	0	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.21	388.10	87.6	137.8	F	746	1119
	2 - Grovehurst Road	0.49	13.57	0.9	3.5	B	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.38	3.63	0.6	2.1	A	547	820
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.45	3.76	0.8	1.5	A	749	1123
	3 - A249 offslip (SB)	0.65	13.50	1.8	5.2	B	406	608
	4 - Swale Way	2.19	3677.22	727.1	181.7	F	1149	1723
	5 - Grovehurst Road	0.85	32.51	5.0	26.6	D	490	735

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	612	153	500	806	0.759	600	0	0.0	2.9	16.654	C
	2 - Grovehurst Road	171	43	800	630	0.271	169	300	0.0	0.4	7.792	A

	3 - A249 onslip (NB)			617				353				
	4 - B2005 - link	502	125	0	1591	0.316	500	617	0.0	0.5	3.295	A
2 - South	1 - A249 onslip (SB)			579				489				
	2 - B2005 - link	619	155	79	1770	0.349	616	500	0.0	0.5	3.115	A
	3 - A249 offslip (SB)	333	83	695	923	0.360	331	0	0.0	0.6	6.052	A
	4 - Swale Way	943	236	453	721	1.307	709	572	0.0	58.3	159.833	F
	5 - Grovehurst Road	402	101	671	660	0.609	396	491	0.0	1.5	13.374	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	731	183	542	778	0.940	707	0	2.9	8.8	41.313	E
	2 - Grovehurst Road	204	51	911	555	0.368	203	338	0.4	0.6	10.213	B
	3 - A249 onslip (NB)			730				385				
	4 - B2005 - link	542	135	0	1591	0.341	542	730	0.5	0.5	3.432	A
2 - South	1 - A249 onslip (SB)			634				492				
	2 - B2005 - link	732	183	95	1761	0.415	731	540	0.5	0.7	3.492	A
	3 - A249 offslip (SB)	397	99	826	819	0.485	396	0	0.6	0.9	8.487	A
	4 - Swale Way	1126	281	539	673	1.672	673	682	58.3	171.4	642.020	F
	5 - Grovehurst Road	480	120	650	674	0.712	477	563	1.5	2.3	17.898	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	895	224	594	742	1.206	737	0	8.8	48.4	154.316	F
	2 - Grovehurst Road	250	62	969	518	0.483	249	362	0.6	0.9	13.306	B
	3 - A249 onslip (NB)			793				425				
	4 - B2005 - link	594	149	0	1591	0.374	594	793	0.5	0.6	3.611	A
2 - South	1 - A249 onslip (SB)			706				494				
	2 - B2005 - link	790	198	115	1750	0.452	790	592	0.7	0.8	3.747	A
	3 - A249 offslip (SB)	487	122	905	756	0.644	483	0	0.9	1.7	13.049	B
	4 - Swale Way	1378	345	614	632	2.182	632	774	171.4	358.1	1516.049	F
	5 - Grovehurst Road	588	147	622	693	0.848	579	623	2.3	4.7	29.145	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	895	224	599	739	1.211	738	0	48.4	87.6	337.970	F
	2 - Grovehurst Road	250	62	973	515	0.485	250	364	0.9	0.9	13.568	B
	3 - A249 onslip (NB)			795				428				
	4 - B2005 - link	599	150	0	1591	0.376	599	795	0.6	0.6	3.627	A
2 - South	1 - A249 onslip (SB)			712				495				
	2 - B2005 - link	793	198	116	1749	0.453	793	596	0.8	0.8	3.763	A
	3 - A249 offslip (SB)	487	122	909	753	0.647	486	0	1.7	1.8	13.500	B
	4 - Swale Way	1378	345	617	630	2.188	630	779	358.1	545.2	2489.328	F
	5 - Grovehurst Road	588	147	621	694	0.847	587	626	4.7	5.0	32.511	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	731	183	546	775	0.943	766	0	87.6	78.7	388.101	F
	2 - Grovehurst Road	204	51	960	521	0.392	205	352	0.9	0.7	11.448	B
	3 - A249 onslip (NB)			777				388				
	4 - B2005 - link	546	136	0	1591	0.343	546	777	0.6	0.5	3.448	A
2 - South	1 - A249 onslip (SB)			641				490				
	2 - B2005 - link	781	195	97	1760	0.444	781	543	0.8	0.8	3.677	A
	3 - A249 offslip (SB)	397	99	878	776	0.512	400	0	1.8	1.1	9.650	A
	4 - Swale Way	1126	281	564	660	1.706	660	715	545.2	661.6	3224.325	F
	5 - Grovehurst Road	480	120	641	680	0.706	490	583	5.0	2.5	19.765	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	612	153	499	807	0.758	797	0	78.7	32.4	254.588	F

1 - North	2 - Grovehurst Road	171	43	953	523	0.327	172	343	0.7	0.5	10.271	B
	3 - A249 onslip (NB)			772				352				
	4 - B2005 - link	498	125	0	1591	0.313	499	772	0.5	0.5	3.299	A
2 - South	1 - A249 onslip (SB)			577				484				
	2 - B2005 - link	780	195	81	1769	0.441	780	497	0.8	0.8	3.641	A
	3 - A249 offslip (SB)	333	83	861	789	0.422	334	0	1.1	0.7	7.935	A
	4 - Swale Way	943	236	527	681	1.384	681	668	661.6	727.1	3677.222	F
	5 - Grovehurst Road	402	101	655	671	0.599	406	553	2.5	1.5	13.786	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.91	0.08	1.39	7.35	10.58			N/A	N/A
	2 - Grovehurst Road	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.46	0.00	0.00	0.46	0.46			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.56	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	58.33	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.50	1.05	1.50	1.90	1.95			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	8.77	0.24	4.77	21.27	28.84			N/A	N/A
	2 - Grovehurst Road	0.57	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.71	0.19	0.92	1.39	1.44			N/A	N/A
	3 - A249 offslip (SB)	0.93	0.09	0.90	1.44	1.81			N/A	N/A
	4 - Swale Way	171.42	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.32	0.09	1.42	5.30	7.30			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	48.40	20.91	45.33	73.93	83.76			N/A	N/A
	2 - Grovehurst Road	0.91	0.03	0.26	0.91	0.91			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.25	0.59	0.59			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.82	0.03	0.25	0.82	0.82			N/A	N/A
	3 - A249 offslip (SB)	1.74	0.03	0.28	1.74	5.22			N/A	N/A
	4 - Swale Way	358.13	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.67	0.04	0.43	12.87	24.30			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	87.62	46.62	84.16	124.47	137.83			N/A	N/A
	2 - Grovehurst Road	0.93	0.03	0.28	0.95	3.54			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.03	0.28	0.60	2.14			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.82	0.03	0.27	0.82	1.08			N/A	N/A
	3 - A249 offslip (SB)	1.79	0.03	0.28	1.79	4.43			N/A	N/A
	4 - Swale Way	545.24	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.02	0.03	0.33	9.18	26.61			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	78.75	35.89	74.42	118.72	133.82			N/A	N/A
	2 - Grovehurst Road	0.66	0.09	0.80	1.36	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.80	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.07	0.08	0.92	1.87	2.53			N/A	N/A
	4 - Swale Way	661.64	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.54	0.04	0.43	6.99	12.43			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	32.45	9.45	28.89	55.36	64.95			N/A	N/A
	2 - Grovehurst Road	0.49	0.04	0.44	1.27	1.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.46	0.00	0.00	0.46	0.46			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.79	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.74	0.05	0.49	1.38	1.89			N/A	N/A
	4 - Swale Way	727.07	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.55	0.04	0.35	3.78	7.90			N/A	N/A

# 2031 + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	1199.33	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	958.34	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D21	2031 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1084	100.000
	2 - Grovehurst Road		ONE HOUR	✓	737	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	619	100.000
	4 - Swale Way		ONE HOUR	✓	753	100.000
	5 - Grovehurst Road		ONE HOUR	✓	775	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	123	0	961
		2 - Grovehurst Road	0	0	38	699
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	159	402	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	419	0	0	1008	231
	3 - A249 offslip (SB)	1	22	0	380	216
	4 - Swale Way	447	228	0	0	78
	5 - Grovehurst Road	289	313	0	173	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	2	0	15
	2 - Grovehurst Road	0	0	5	2
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	5	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	15	5
	3 - A249 offslip (SB)	0	5	0	9	3
	4 - Swale Way	34	9	0	0	9
	5 - Grovehurst Road	1	1	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.35	822.84	209.5	209.5	F	995	1492
	2 - Grovehurst Road	1.81	2534.43	329.5	195.8	F	676	1014
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.26	3.13	0.3	1.3	A	397	595
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	5.88	2.0	6.0	A	1206	1809
	3 - A249 offslip (SB)	1.52	1454.61	182.4	187.4	F	568	852
	4 - Swale Way	1.52	1484.99	226.3	161.5	F	691	1036
	5 - Grovehurst Road	1.57	1663.71	254.9	196.7	F	711	1067

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	816	204	384	896	0.911	787	0	0.0	7.2	28.120	D
	2 - Grovehurst Road	555	139	973	513	1.081	485	198	0.0	17.4	82.933	F



	3 - A249 onslip (NB)			1158				300				
	4 - B2005 - link	386	96	0	1549	0.249	384	1158	0.0	0.3	3.088	A
2 - South	1 - A249 onslip (SB)			506				797				
	2 - B2005 - link	1158	290	119	1831	0.633	1152	387	0.0	1.7	5.246	A
	3 - A249 offslip (SB)	466	117	1270	500	0.931	438	0	0.0	7.0	46.272	E
	4 - Swale Way	567	142	621	560	1.013	518	1088	0.0	12.3	60.405	F
	5 - Grovehurst Road	583	146	771	572	1.020	531	367	0.0	13.0	61.522	F

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	974	244	399	886	1.100	872	0	7.2	32.9	97.214	F
	2 - Grovehurst Road	663	166	1059	457	1.449	456	212	17.4	69.0	358.889	F
	3 - A249 onslip (NB)			1206				309				
	4 - B2005 - link	399	100	0	1549	0.257	399	1206	0.3	0.3	3.127	A
2 - South	1 - A249 onslip (SB)			521				831				
	2 - B2005 - link	1211	303	121	1830	0.662	1210	400	1.7	1.9	5.800	A
	3 - A249 offslip (SB)	556	139	1332	453	1.228	448	0	7.0	34.1	185.750	F
	4 - Swale Way	677	169	647	546	1.239	543	1132	12.3	45.8	209.637	F
	5 - Grovehurst Road	697	174	809	546	1.277	543	381	13.0	51.5	230.322	F

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1194	298	399	885	1.348	885	0	32.9	110.1	300.428	F
	2 - Grovehurst Road	811	203	1070	449	1.806	449	214	69.0	159.5	927.727	F
	3 - A249 onslip (NB)			1210				309				
	4 - B2005 - link	399	100	0	1549	0.258	399	1210	0.3	0.3	3.129	A
2 - South	1 - A249 onslip (SB)			522				834				
	2 - B2005 - link	1217	304	121	1830	0.665	1217	400	1.9	2.0	5.871	A
	3 - A249 offslip (SB)	682	170	1338	448	1.520	448	0	34.1	92.5	523.230	F
	4 - Swale Way	829	207	650	545	1.521	545	1136	45.8	116.8	548.852	F
	5 - Grovehurst Road	853	213	813	543	1.570	543	382	51.5	129.0	609.152	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1194	298	399	885	1.348	885	0	110.1	187.2	611.286	F
	2 - Grovehurst Road	811	203	1071	449	1.808	449	214	159.5	250.2	1653.056	F
	3 - A249 onslip (NB)			1211				309				
	4 - B2005 - link	399	100	0	1549	0.258	399	1211	0.3	0.3	3.129	A
2 - South	1 - A249 onslip (SB)			522				834				
	2 - B2005 - link	1217	304	121	1830	0.665	1217	400	2.0	2.0	5.876	A
	3 - A249 offslip (SB)	682	170	1339	448	1.521	448	0	92.5	150.9	989.833	F
	4 - Swale Way	829	207	650	545	1.521	545	1136	116.8	187.9	1015.786	F
	5 - Grovehurst Road	853	213	813	543	1.571	543	382	129.0	206.5	1120.906	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	974	244	399	885	1.101	885	0	187.2	209.5	812.558	F
	2 - Grovehurst Road	663	166	1071	449	1.476	449	214	250.2	303.6	2223.006	F
	3 - A249 onslip (NB)			1211				309				
	4 - B2005 - link	399	100	0	1549	0.258	399	1211	0.3	0.3	3.129	A
2 - South	1 - A249 onslip (SB)			522				834				
	2 - B2005 - link	1217	304	121	1830	0.665	1217	400	2.0	2.0	5.876	A
	3 - A249 offslip (SB)	556	139	1339	448	1.242	448	0	150.9	178.1	1331.653	F
	4 - Swale Way	677	169	650	545	1.242	545	1136	187.9	220.9	1358.464	F
	5 - Grovehurst Road	697	174	813	543	1.283	543	382	206.5	244.9	1504.070	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	816	204	399	885	0.922	881	0	209.5	193.2	822.844	F

1 - North	2 - Grovehurst Road	555	139	1067	451	1.229	451	213	303.6	329.5	2534.431	F
	3 - A249 onslip (NB)			1209				309				
	4 - B2005 - link	399	100	0	1549	0.258	399	1209	0.3	0.3	3.129	A
2 - South	1 - A249 onslip (SB)			522				834				
	2 - B2005 - link	1216	304	121	1830	0.664	1216	400	2.0	2.0	5.860	A
	3 - A249 offslip (SB)	466	117	1337	449	1.037	449	0	178.1	182.4	1454.614	F
	4 - Swale Way	567	142	650	545	1.040	545	1136	220.9	226.3	1484.990	F
	5 - Grovehurst Road	583	146	812	543	1.074	543	382	244.9	254.9	1663.709	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	7.23	0.03	0.29	7.23	24.03			N/A	N/A
	2 - Grovehurst Road	17.37	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.69	1.05	1.50	1.90	1.95			N/A	N/A
	3 - A249 offslip (SB)	7.02	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	12.33	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	13.02	>199	>199	>199	>199			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	32.89	0.22	13.35	89.94	129.51			N/A	N/A
	2 - Grovehurst Road	68.97	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.93	0.08	1.20	4.37	6.04			N/A	N/A
	3 - A249 offslip (SB)	34.11	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	45.79	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	51.45	>199	>199	>199	>199			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	110.11	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	159.53	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.35	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.96	0.03	0.27	1.96	1.96			N/A	N/A
	3 - A249 offslip (SB)	92.52	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	116.85	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	128.99	>199	>199	>199	>199			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	187.16	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	250.18	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.35	0.03	0.31	1.18	1.27			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.97	0.03	0.26	1.97	1.97			N/A	N/A
	3 - A249 offslip (SB)	150.94	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	187.87	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	206.52	>199	>199	>199	>199			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	209.48	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	303.59	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.35	0.00	0.00	0.35	0.35			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.98	0.12	1.42	4.01	5.40			N/A	N/A
	3 - A249 offslip (SB)	178.09	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	220.86	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	244.90	>199	>199	>199	>199			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	193.21	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	329.48	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.35	0.00	0.00	0.35	0.35			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.98	0.24	1.16	3.51	4.41			N/A	N/A
	3 - A249 offslip (SB)	182.37	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	226.35	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	254.92	>199	>199	>199	>199			N/A	N/A

# 2031 + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	1015.51	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	2361.27	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D22	2031 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1178	100.000
	2 - Grovehurst Road		ONE HOUR	✓	389	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	528	100.000
	4 - Swale Way		ONE HOUR	✓	1350	100.000
	5 - Grovehurst Road		ONE HOUR	✓	613	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	430	0	748
		2 - Grovehurst Road	0	0	34	355
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	277	559	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	187	0	0	509	402
	3 - A249 offslip (SB)	1	39	0	201	287
	4 - Swale Way	755	434	0	0	161
	5 - Grovehurst Road	150	356	0	107	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	0	0	18
	2 - Grovehurst Road	0	0	0	0
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	1	0	0	25	1
	3 - A249 offslip (SB)	0	8	0	8	3
	4 - Swale Way	16	2	0	0	3
	5 - Grovehurst Road	0	1	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.68	1773.43	418.6	179.5	F	1081	1621
	2 - Grovehurst Road	0.73	22.53	2.6	12.9	C	357	535
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.60	0.6	2.3	A	541	812
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.48	3.87	0.9	1.5	A	826	1239
	3 - A249 offslip (SB)	0.81	25.47	3.9	19.9	D	485	727
	4 - Swale Way	2.87	5790.74	1014.9	181.9	F	1239	1858
	5 - Grovehurst Road	0.98	84.86	15.3	59.8	F	562	844

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	887	222	484	850	1.044	808	0	0.0	19.6	57.371	F
	2 - Grovehurst Road	293	73	837	615	0.476	289	455	0.0	0.9	10.944	B

	3 - A249 onslip (NB)			777				349				
	4 - B2005 - link	485	121	0	1591	0.305	484	777	0.0	0.4	3.242	A
2 - South	1 - A249 onslip (SB)			565				581				
	2 - B2005 - link	776	194	79	1817	0.427	773	486	0.0	0.7	3.438	A
	3 - A249 offslip (SB)	398	99	852	819	0.485	394	0	0.0	0.9	8.388	A
	4 - Swale Way	1016	254	658	610	1.666	604	587	0.0	103.1	323.577	F
	5 - Grovehurst Road	461	115	694	657	0.703	453	569	0.0	2.2	16.979	C

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1059	265	532	816	1.298	814	0	19.6	80.9	236.381	F
	2 - Grovehurst Road	350	87	872	593	0.590	348	473	0.9	1.4	14.559	B
	3 - A249 onslip (NB)			834				386				
	4 - B2005 - link	532	133	0	1591	0.334	532	834	0.4	0.5	3.399	A
2 - South	1 - A249 onslip (SB)			628				592				
	2 - B2005 - link	827	207	95	1807	0.457	826	533	0.7	0.8	3.667	A
	3 - A249 offslip (SB)	475	119	921	765	0.621	472	0	0.9	1.6	12.180	B
	4 - Swale Way	1214	303	736	567	2.141	567	658	103.1	264.7	1243.663	F
	5 - Grovehurst Road	551	138	676	669	0.823	544	627	2.2	4.0	27.100	D

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1297	324	582	780	1.664	779	0	80.9	210.3	682.638	F
	2 - Grovehurst Road	428	107	884	587	0.729	424	477	1.4	2.5	21.422	C
	3 - A249 onslip (NB)			882				426				
	4 - B2005 - link	583	146	0	1591	0.366	582	882	0.5	0.6	3.570	A
2 - South	1 - A249 onslip (SB)			696				597				
	2 - B2005 - link	866	216	112	1797	0.482	866	584	0.8	0.9	3.864	A
	3 - A249 offslip (SB)	581	145	978	721	0.806	573	0	1.6	3.7	23.095	C
	4 - Swale Way	1486	372	819	520	2.857	520	732	264.7	506.3	2675.242	F
	5 - Grovehurst Road	675	169	649	688	0.981	644	690	4.0	11.7	58.264	F

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1297	324	592	773	1.678	773	0	210.3	341.3	1290.994	F
	2 - Grovehurst Road	428	107	886	587	0.730	428	478	2.5	2.6	22.532	C
	3 - A249 onslip (NB)			881				433				
	4 - B2005 - link	592	148	0	1591	0.372	592	881	0.6	0.6	3.603	A
2 - South	1 - A249 onslip (SB)			708				600				
	2 - B2005 - link	865	216	115	1796	0.482	865	593	0.9	0.9	3.867	A
	3 - A249 offslip (SB)	581	145	980	719	0.808	580	0	3.7	3.9	25.469	D
	4 - Swale Way	1486	372	823	518	2.870	518	737	506.3	748.4	3949.472	F
	5 - Grovehurst Road	675	169	647	689	0.980	661	694	11.7	15.3	84.862	F

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1059	265	559	796	1.330	796	0	341.3	407.0	1655.582	F
	2 - Grovehurst Road	350	87	879	590	0.593	354	476	2.6	1.5	15.548	C
	3 - A249 onslip (NB)			829				405				
	4 - B2005 - link	559	140	0	1591	0.351	559	829	0.6	0.5	3.492	A
2 - South	1 - A249 onslip (SB)			663				601				
	2 - B2005 - link	820	205	103	1803	0.455	820	560	0.9	0.8	3.668	A
	3 - A249 offslip (SB)	475	119	923	764	0.622	484	0	3.9	1.7	13.232	B
	4 - Swale Way	1214	303	740	565	2.149	565	667	748.4	910.6	5041.966	F
	5 - Grovehurst Road	551	138	674	671	0.822	590	631	15.3	5.5	52.778	F

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	887	222	496	841	1.055	840	0	407.0	418.6	1773.429	F

1 - North	2 - Grovehurst Road	293	73	866	595	0.492	295	471	1.5	1.0	12.066	B
	3 - A249 onslip (NB)			803				358				
	4 - B2005 - link	496	124	0	1591	0.312	496	803	0.5	0.5	3.293	A
2 - South	1 - A249 onslip (SB)			580				588				
	2 - B2005 - link	802	200	83	1815	0.442	802	497	0.8	0.8	3.557	A
	3 - A249 offslip (SB)	398	99	884	794	0.501	400	0	1.7	1.0	9.215	A
	4 - Swale Way	1016	254	678	599	1.696	599	607	910.6	1014.9	5790.738	F
	5 - Grovehurst Road	461	115	695	656	0.703	473	583	5.5	2.5	20.766	C

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	19.59	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.89	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.44	0.00	0.00	0.44	0.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.74	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.93	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	103.06	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.22	0.73	1.63	2.92	3.47			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	80.89	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.39	0.11	1.14	2.56	3.30			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.00	0.00	0.50	0.50			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.18	0.94	1.42	1.49			N/A	N/A
	3 - A249 offslip (SB)	1.58	0.07	1.00	3.56	4.95			N/A	N/A
	4 - Swale Way	264.74	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.03	0.13	1.89	9.62	13.18			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	210.28	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	2.49	0.03	0.32	4.32	12.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.57	0.03	0.25	0.57	0.57			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.92	0.03	0.25	0.92	0.92			N/A	N/A
	3 - A249 offslip (SB)	3.69	0.04	0.36	8.81	19.87			N/A	N/A
	4 - Swale Way	506.25	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	11.67	0.25	6.15	29.07	39.81			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	341.33	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	2.59	0.03	0.29	2.59	9.85			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.28	0.76	2.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.93	0.03	0.26	0.93	0.93			N/A	N/A
	3 - A249 offslip (SB)	3.93	0.03	0.31	4.63	18.60			N/A	N/A
	4 - Swale Way	748.36	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	15.26	0.15	5.93	41.44	59.76			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	407.05	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.51	0.05	0.51	3.81	5.86			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.54	0.54	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.70	0.04	0.45	4.53	7.45			N/A	N/A
	4 - Swale Way	910.59	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.47	0.05	0.49	15.65	27.50			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	418.64	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.99	0.04	0.39	2.47	4.15			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.46	0.00	0.00	0.46	0.46			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.80	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.02	0.03	0.34	2.42	4.97			N/A	N/A
	4 - Swale Way	1014.88	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.52	0.03	0.34	5.61	13.46			N/A	N/A



# 2031 + K3 Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	231.93	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	373.34	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D23	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	863	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	692	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	821
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	147	327	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	141	0	0	910	183
	3 - A249 offslip (SB)	1	18	0	377	174
	4 - Swale Way	389	226	0	0	77
	5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	7	0	18
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	7	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	16	6
	3 - A249 offslip (SB)	0	6	0	9	4
	4 - Swale Way	39	10	0	0	9
	5 - Grovehurst Road	1	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.15	300.60	72.9	125.1	F	792	1188
	2 - Grovehurst Road	1.16	321.84	39.2	75.7	F	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.29	3.30	0.4	1.7	A	418	627
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.20	2.0	4.9	A	1114	1672
	3 - A249 offslip (SB)	1.49	1134.31	134.5	200.0	F	523	785
	4 - Swale Way	1.21	465.37	80.0	138.6	F	635	952
	5 - Grovehurst Road	1.15	303.49	52.1	95.5	F	561	841

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	650	162	350	887	0.733	639	0	0.0	2.6	14.023	B
	2 - Grovehurst Road	331	83	850	574	0.577	326	140	0.0	1.3	14.239	B

	3 - A249 onslip (NB)			916				260				
	4 - B2005 - link	351	88	0	1530	0.230	350	916	0.0	0.3	3.049	A
2 - South	1 - A249 onslip (SB)			479				543				
	2 - B2005 - link	918	229	127	1780	0.516	914	352	0.0	1.1	4.138	A
	3 - A249 offslip (SB)	429	107	1041	655	0.655	422	0	0.0	1.8	15.028	C
	4 - Swale Way	521	130	383	661	0.788	508	1080	0.0	3.3	21.883	C
	5 - Grovehurst Road	460	115	570	685	0.672	452	321	0.0	1.9	15.022	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	776	194	410	845	0.918	756	0	2.6	7.6	34.371	D
	2 - Grovehurst Road	396	99	1002	474	0.835	385	164	1.3	4.0	36.600	E
	3 - A249 onslip (NB)			1082				305				
	4 - B2005 - link	410	103	0	1530	0.268	410	1082	0.3	0.4	3.215	A
2 - South	1 - A249 onslip (SB)			561				636				
	2 - B2005 - link	1084	271	150	1767	0.614	1082	411	1.1	1.6	5.245	A
	3 - A249 offslip (SB)	512	128	1232	506	1.013	472	0	1.8	11.9	71.617	F
	4 - Swale Way	622	156	444	631	0.985	590	1261	3.3	11.4	60.464	F
	5 - Grovehurst Road	549	137	663	616	0.892	533	370	1.9	5.9	37.919	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	950	238	436	826	1.150	817	0	7.6	40.9	121.432	F
	2 - Grovehurst Road	484	121	1078	423	1.145	412	175	4.0	22.1	136.403	F
	3 - A249 onslip (NB)			1166				324				
	4 - B2005 - link	437	109	0	1530	0.285	436	1166	0.4	0.4	3.292	A
2 - South	1 - A249 onslip (SB)			600				679				
	2 - B2005 - link	1169	292	163	1759	0.665	1168	437	1.6	1.9	6.069	A
	3 - A249 offslip (SB)	628	157	1330	430	1.460	429	0	11.9	61.6	328.415	F
	4 - Swale Way	762	190	452	628	1.214	623	1307	11.4	46.0	181.714	F
	5 - Grovehurst Road	673	168	702	588	1.145	578	373	5.9	29.7	128.942	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	950	238	439	824	1.153	823	0	40.9	72.9	259.440	F
	2 - Grovehurst Road	484	121	1086	418	1.158	416	176	22.1	39.2	282.586	F
	3 - A249 onslip (NB)			1175				327				
	4 - B2005 - link	439	110	0	1530	0.287	439	1175	0.4	0.4	3.301	A
2 - South	1 - A249 onslip (SB)			604				684				
	2 - B2005 - link	1178	295	164	1758	0.670	1178	440	1.9	2.0	6.197	A
	3 - A249 offslip (SB)	628	157	1342	421	1.491	421	0	61.6	113.3	754.943	F
	4 - Swale Way	762	190	452	628	1.214	627	1311	46.0	79.8	373.023	F
	5 - Grovehurst Road	673	168	706	585	1.150	583	373	29.7	52.1	266.368	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	776	194	436	826	0.939	815	0	72.9	63.0	300.602	F
	2 - Grovehurst Road	396	99	1076	425	0.932	414	175	39.2	34.6	321.839	F
	3 - A249 onslip (NB)			1166				324				
	4 - B2005 - link	436	109	0	1530	0.285	436	1166	0.4	0.4	3.290	A
2 - South	1 - A249 onslip (SB)			600				679				
	2 - B2005 - link	1169	292	163	1759	0.664	1169	437	2.0	2.0	6.102	A
	3 - A249 offslip (SB)	512	128	1332	429	1.195	429	0	113.3	134.3	1050.523	F
	4 - Swale Way	622	156	452	627	0.992	621	1308	79.8	80.0	465.371	F
	5 - Grovehurst Road	549	137	700	589	0.933	578	373	52.1	45.0	303.493	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	650	162	435	827	0.786	814	0	63.0	21.9	192.255	F

1 - North	2 - Grovehurst Road	331	83	1075	426	0.778	414	175	34.6	14.0	218.685	F
	3 - A249 onslip (NB)			1165				324				
	4 - B2005 - link	435	109	0	1530	0.285	435	1165	0.4	0.4	3.291	A
2 - South	1 - A249 onslip (SB)			599				677				
	2 - B2005 - link	1168	292	163	1759	0.664	1168	436	2.0	2.0	6.086	A
	3 - A249 offslip (SB)	429	107	1330	430	0.998	428	0	134.3	134.5	1134.310	F
	4 - Swale Way	521	130	452	628	0.830	620	1307	80.0	55.2	394.386	F
	5 - Grovehurst Road	460	115	699	590	0.779	577	373	45.0	15.7	195.374	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.58	0.08	1.39	6.25	8.83			N/A	N/A
	2 - Grovehurst Road	1.31	0.05	0.47	3.28	5.10			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.06	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.81	0.03	0.25	1.81	1.81			N/A	N/A
	4 - Swale Way	3.31	0.04	0.44	9.24	16.45			N/A	N/A
	5 - Grovehurst Road	1.94	0.07	1.03	4.72	6.81			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	7.65	0.18	3.77	19.01	26.21			N/A	N/A
	2 - Grovehurst Road	4.05	0.08	1.02	10.83	16.02			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.57	0.07	1.00	3.50	4.87			N/A	N/A
	3 - A249 offslip (SB)	11.86	0.03	0.29	11.86	31.85			N/A	N/A
	4 - Swale Way	11.41	0.27	6.20	28.09	38.22			N/A	N/A
	5 - Grovehurst Road	5.92	0.14	2.63	14.90	20.81			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	40.94	14.53	37.43	66.44	76.69			N/A	N/A
	2 - Grovehurst Road	22.11	5.26	19.10	39.15	46.57			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.95	0.03	0.27	1.95	1.95			N/A	N/A
	3 - A249 offslip (SB)	61.63	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	46.03	17.56	42.49	73.22	83.97			N/A	N/A
	5 - Grovehurst Road	29.67	8.70	26.41	50.43	59.12			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	72.85	32.44	68.65	110.67	125.05			N/A	N/A
	2 - Grovehurst Road	39.19	12.81	35.46	65.09	75.69			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.30	1.26	1.70			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.00	0.03	0.26	2.00	2.00			N/A	N/A
	3 - A249 offslip (SB)	113.33	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	79.81	40.04	76.18	116.02	129.37			N/A	N/A
	5 - Grovehurst Road	52.14	19.78	48.14	83.21	95.49			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	62.99	22.97	57.95	102.04	117.59			N/A	N/A
	2 - Grovehurst Road	34.59	7.83	29.83	62.72	75.01			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.20	1.13	3.66	4.65			N/A	N/A
	3 - A249 offslip (SB)	134.26	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	79.96	34.91	75.21	122.39	138.57			N/A	N/A
	5 - Grovehurst Road	44.99	12.90	40.09	77.61	91.27			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	21.89	3.09	17.67	42.73	52.52			N/A	N/A
	2 - Grovehurst Road	13.99	0.89	9.55	31.03	40.15			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.52	1.31	3.07	3.80			N/A	N/A
	3 - A249 offslip (SB)	134.48	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	55.22	13.89	48.43	98.56	117.11			N/A	N/A
	5 - Grovehurst Road	15.66	1.39	11.36	33.42	42.53			N/A	N/A

# 2031 + K3 Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	254.52	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1661.70	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D24	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	828	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	443	100.000
	4 - Swale Way		ONE HOUR	✓	1278	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	648
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	262	522	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	480	322
	3 - A249 offslip (SB)	1	27	0	199	216
	4 - Swale Way	687	432	0	0	159
	5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	22
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	4	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	28	1
	3 - A249 offslip (SB)	0	11	0	8	4
	4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.25	466.83	101.3	157.7	F	760	1140
	2 - Grovehurst Road	0.49	13.78	0.9	3.5	B	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.64	0.6	2.2	A	539	809
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.46	3.83	0.8	1.5	A	752	1128
	3 - A249 offslip (SB)	0.65	13.84	1.8	5.8	B	407	610
	4 - Swale Way	2.25	3935.47	772.5	179.2	F	1173	1759
	5 - Grovehurst Road	0.85	33.47	5.2	27.6	D	490	735

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	623	156	492	799	0.781	610	0	0.0	3.2	18.070	C
	2 - Grovehurst Road	171	43	805	618	0.276	169	297	0.0	0.4	7.991	A

	3 - A249 onslip (NB)			627				348				
	4 - B2005 - link	494	123	0	1580	0.312	492	627	0.0	0.5	3.301	A
2 - South	1 - A249 onslip (SB)			571				490				
	2 - B2005 - link	630	158	79	1750	0.360	628	493	0.0	0.6	3.201	A
	3 - A249 offslip (SB)	334	83	707	908	0.367	331	0	0.0	0.6	6.218	A
	4 - Swale Way	962	241	453	711	1.353	701	584	0.0	65.4	179.773	F
	5 - Grovehurst Road	402	101	666	657	0.612	396	488	0.0	1.5	13.501	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	744	186	533	770	0.966	714	0	3.2	10.7	48.254	E
	2 - Grovehurst Road	204	51	914	543	0.376	203	334	0.4	0.6	10.557	B
	3 - A249 onslip (NB)			738				379				
	4 - B2005 - link	534	133	0	1580	0.338	533	738	0.5	0.5	3.438	A
2 - South	1 - A249 onslip (SB)			627				493				
	2 - B2005 - link	741	185	95	1741	0.426	741	533	0.6	0.7	3.596	A
	3 - A249 offslip (SB)	398	100	835	804	0.495	397	0	0.6	1.0	8.809	A
	4 - Swale Way	1149	287	538	665	1.728	665	694	65.4	186.4	710.891	F
	5 - Grovehurst Road	480	120	644	672	0.714	477	559	1.5	2.3	18.089	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	912	228	586	734	1.241	731	0	10.7	56.0	178.611	F
	2 - Grovehurst Road	250	62	962	513	0.487	249	355	0.6	0.9	13.546	B
	3 - A249 onslip (NB)			791				420				
	4 - B2005 - link	587	147	0	1580	0.371	586	791	0.5	0.6	3.621	A
2 - South	1 - A249 onslip (SB)			700				496				
	2 - B2005 - link	789	197	115	1730	0.456	789	586	0.7	0.8	3.823	A
	3 - A249 offslip (SB)	488	122	904	749	0.651	484	0	1.0	1.8	13.414	B
	4 - Swale Way	1407	352	607	627	2.246	627	781	186.4	381.6	1638.166	F
	5 - Grovehurst Road	588	147	618	690	0.852	578	615	2.3	4.8	29.810	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	912	228	591	731	1.247	731	0	56.0	101.3	392.107	F
	2 - Grovehurst Road	250	62	965	511	0.489	250	356	0.9	0.9	13.781	B
	3 - A249 onslip (NB)			792				423				
	4 - B2005 - link	591	148	0	1580	0.374	591	792	0.6	0.6	3.638	A
2 - South	1 - A249 onslip (SB)			707				497				
	2 - B2005 - link	790	198	116	1729	0.457	790	590	0.8	0.8	3.834	A
	3 - A249 offslip (SB)	488	122	907	747	0.653	488	0	1.8	1.8	13.841	B
	4 - Swale Way	1407	352	609	625	2.251	625	785	381.6	577.0	2656.593	F
	5 - Grovehurst Road	588	147	618	690	0.852	586	617	4.8	5.2	33.469	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	744	186	539	767	0.971	759	0	101.3	97.6	466.835	F
	2 - Grovehurst Road	204	51	953	516	0.395	205	345	0.9	0.7	11.618	B
	3 - A249 onslip (NB)			775				383				
	4 - B2005 - link	538	135	0	1580	0.341	539	775	0.6	0.5	3.456	A
2 - South	1 - A249 onslip (SB)			635				492				
	2 - B2005 - link	780	195	97	1740	0.448	780	538	0.8	0.8	3.752	A
	3 - A249 offslip (SB)	398	100	877	770	0.517	401	0	1.8	1.1	9.843	A
	4 - Swale Way	1149	287	557	654	1.756	654	721	577.0	700.7	3441.446	F
	5 - Grovehurst Road	480	120	637	677	0.709	490	574	5.2	2.6	20.215	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	623	156	491	799	0.780	791	0	97.6	55.7	351.214	F



1 - North	2 - Grovehurst Road	171	43	946	518	0.330	172	336	0.7	0.5	10.421	B
	3 - A249 onslip (NB)			770				348				
	4 - B2005 - link	491	123	0	1580	0.311	491	770	0.5	0.5	3.306	A
2 - South	1 - A249 onslip (SB)			571				486				
	2 - B2005 - link	780	195	81	1749	0.446	780	490	0.8	0.8	3.713	A
	3 - A249 offslip (SB)	334	83	860	782	0.427	335	0	1.1	0.8	8.078	A
	4 - Swale Way	962	241	521	675	1.426	675	674	700.7	772.5	3935.472	F
	5 - Grovehurst Road	402	101	651	668	0.602	406	545	2.6	1.6	13.979	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.24	0.05	0.79	9.01	14.38			N/A	N/A
	2 - Grovehurst Road	0.38	0.00	0.00	0.38	0.38			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.56	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.57	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	65.38	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.52	1.05	1.50	1.90	1.95			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.74	0.28	5.94	26.16	35.44			N/A	N/A
	2 - Grovehurst Road	0.59	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.74	0.20	0.93	1.39	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.96	0.09	0.92	1.55	1.89			N/A	N/A
	4 - Swale Way	186.41	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.35	0.09	1.42	5.38	7.42			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	56.02	25.88	52.90	83.71	94.16			N/A	N/A
	2 - Grovehurst Road	0.92	0.03	0.26	0.92	0.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.25	0.59	0.59			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.83	0.03	0.25	0.83	0.83			N/A	N/A
	3 - A249 offslip (SB)	1.79	0.03	0.28	1.79	5.79			N/A	N/A
	4 - Swale Way	381.56	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.78	0.04	0.44	13.29	24.70			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	101.29	57.94	97.99	139.63	153.23			N/A	N/A
	2 - Grovehurst Road	0.94	0.03	0.28	0.94	3.50			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.28	0.65	2.19			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.03	0.26	0.84	0.87			N/A	N/A
	3 - A249 offslip (SB)	1.84	0.03	0.28	1.84	4.53			N/A	N/A
	4 - Swale Way	577.03	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.16	0.03	0.34	9.90	27.64			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	97.58	49.41	93.32	141.56	157.70			N/A	N/A
	2 - Grovehurst Road	0.67	0.08	0.79	1.37	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.82	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.09	0.07	0.90	1.95	2.72			N/A	N/A
	4 - Swale Way	700.67	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.59	0.04	0.43	7.14	12.70			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	55.75	18.31	50.61	92.98	108.14			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.45	1.28	1.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.75	0.05	0.48	1.48	1.98			N/A	N/A
	4 - Swale Way	772.50	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.57	0.03	0.35	3.82	8.02			N/A	N/A

# 2031 + K3 and WKN Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	253.02	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	397.60	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D27	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	871	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	701	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	829
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	147	327	0
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## Demand (Veh/hr)

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
2 - South	From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	141	0	0	918
		3 - A249 offslip (SB)	1	18	0	377
		4 - Swale Way	398	226	0	0
		5 - Grovehurst Road	206	233	0	172

## Vehicle Mix

## Heavy Vehicle Percentages

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From	1 - A249 offslip (NB)	0	7	0
		2 - Grovehurst Road	0	0	8
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	7

## Heavy Vehicle Percentages

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
2 - South	From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	0	0	0	17
		3 - A249 offslip (SB)	0	6	0	9
		4 - Swale Way	41	10	0	0
		5 - Grovehurst Road	1	2	0	4

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.17	335.56	79.4	132.2	F	799	1199
	2 - Grovehurst Road	1.16	329.00	39.8	76.5	F	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.28	3.29	0.4	1.7	A	415	622
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.28	2.0	5.0	A	1113	1670
	3 - A249 offslip (SB)	1.50	1171.76	138.2	186.3	F	523	785
	4 - Swale Way	1.24	527.84	91.0	152.5	F	643	965
	5 - Grovehurst Road	1.15	314.99	53.3	96.8	F	561	841

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	656	164	349	880	0.745	645	0	0.0	2.7	14.696	B
	2 - Grovehurst Road	331	83	855	567	0.584	326	139	0.0	1.4	14.627	B

	3 - A249 onslip (NB)			921				260				
	4 - B2005 - link	351	88	0	1530	0.229	349	921	0.0	0.3	3.048	A
2 - South	1 - A249 onslip (SB)			478				549				
	2 - B2005 - link	923	231	127	1768	0.522	918	351	0.0	1.1	4.218	A
	3 - A249 offslip (SB)	429	107	1046	646	0.664	422	0	0.0	1.9	15.548	C
	4 - Swale Way	528	132	382	655	0.806	513	1085	0.0	3.6	23.493	C
	5 - Grovehurst Road	460	115	575	677	0.680	452	320	0.0	2.0	15.519	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	783	196	408	840	0.933	760	0	2.7	8.5	37.368	E
	2 - Grovehurst Road	396	99	1005	468	0.846	384	163	1.4	4.3	38.551	E
	3 - A249 onslip (NB)			1085				303				
	4 - B2005 - link	408	102	0	1530	0.267	408	1085	0.3	0.4	3.208	A
2 - South	1 - A249 onslip (SB)			558				639				
	2 - B2005 - link	1087	272	150	1755	0.620	1085	409	1.1	1.6	5.359	A
	3 - A249 offslip (SB)	512	128	1235	498	1.029	468	0	1.9	13.0	77.246	F
	4 - Swale Way	630	158	442	626	1.007	592	1262	3.6	13.3	67.781	F
	5 - Grovehurst Road	549	137	665	610	0.901	532	368	2.0	6.3	39.861	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	959	240	432	823	1.166	815	0	8.5	44.5	131.180	F
	2 - Grovehurst Road	484	121	1074	422	1.149	411	173	4.3	22.6	139.736	F
	3 - A249 onslip (NB)			1164				321				
	4 - B2005 - link	432	108	0	1530	0.282	432	1164	0.4	0.4	3.278	A
2 - South	1 - A249 onslip (SB)			595				679				
	2 - B2005 - link	1166	291	162	1748	0.667	1164	433	1.6	2.0	6.154	A
	3 - A249 offslip (SB)	628	157	1327	427	1.471	425	0	13.0	63.5	343.252	F
	4 - Swale Way	772	193	448	623	1.239	620	1304	13.3	51.2	202.629	F
	5 - Grovehurst Road	673	168	698	586	1.149	576	370	6.3	30.4	132.574	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	959	240	434	821	1.168	820	0	44.5	79.4	282.087	F
	2 - Grovehurst Road	484	121	1080	418	1.160	415	174	22.6	39.8	287.685	F
	3 - A249 onslip (NB)			1172				323				
	4 - B2005 - link	434	109	0	1530	0.284	434	1172	0.4	0.4	3.286	A
2 - South	1 - A249 onslip (SB)			599				683				
	2 - B2005 - link	1174	293	164	1747	0.672	1174	436	2.0	2.0	6.276	A
	3 - A249 offslip (SB)	628	157	1337	418	1.500	418	0	63.5	115.9	777.959	F
	4 - Swale Way	772	193	448	623	1.239	623	1308	51.2	88.6	415.478	F
	5 - Grovehurst Road	673	168	701	583	1.153	581	369	30.4	53.3	272.895	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	783	196	432	823	0.952	813	0	79.4	71.9	335.559	F
	2 - Grovehurst Road	396	99	1071	423	0.934	413	173	39.8	35.4	328.996	F
	3 - A249 onslip (NB)			1163				321				
	4 - B2005 - link	432	108	0	1530	0.282	432	1163	0.4	0.4	3.280	A
2 - South	1 - A249 onslip (SB)			594				679				
	2 - B2005 - link	1165	291	162	1748	0.666	1165	433	2.0	2.0	6.177	A
	3 - A249 offslip (SB)	512	128	1327	427	1.201	426	0	115.9	137.4	1080.073	F
	4 - Swale Way	630	158	448	623	1.012	621	1305	88.6	91.0	527.845	F
	5 - Grovehurst Road	549	137	699	585	0.939	574	370	53.3	47.0	314.987	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	656	164	431	823	0.796	812	0	71.9	32.8	235.586	F

1 - North	2 - Grovehurst Road	331	83	1070	424	0.781	412	173	35.4	15.2	227.705	F
	3 - A249 onslip (NB)			1162				321				
	4 - B2005 - link	431	108	0	1530	0.282	431	1162	0.4	0.4	3.275	A
	1 - A249 onslip (SB)			594				677				
2 - South	2 - B2005 - link	1164	291	162	1748	0.666	1164	432	2.0	2.0	6.166	A
	3 - A249 offslip (SB)	429	107	1326	427	1.005	426	0	137.4	138.2	1171.756	F
	4 - Swale Way	528	132	448	623	0.847	616	1304	91.0	68.8	468.088	F
	5 - Grovehurst Road	460	115	695	588	0.782	576	369	47.0	18.1	209.204	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.74	0.07	1.14	7.15	10.64			N/A	N/A
	2 - Grovehurst Road	1.35	0.05	0.46	3.44	5.46			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.08	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.88	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	3.63	0.04	0.38	9.39	19.38			N/A	N/A
	5 - Grovehurst Road	2.01	0.06	0.98	4.97	7.31			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	8.49	0.19	4.22	21.21	29.23			N/A	N/A
	2 - Grovehurst Road	4.28	0.08	1.21	11.40	16.75			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.60	0.07	1.02	3.60	4.99			N/A	N/A
	3 - A249 offslip (SB)	12.98	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	13.26	0.26	6.97	33.23	45.57			N/A	N/A
	5 - Grovehurst Road	6.25	0.15	2.88	15.66	21.75			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	44.49	16.81	41.00	70.90	81.37			N/A	N/A
	2 - Grovehurst Road	22.57	5.49	19.57	39.80	47.27			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.97	0.03	0.27	1.97	1.97			N/A	N/A
	3 - A249 offslip (SB)	63.52	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	51.23	19.76	47.40	81.39	93.30			N/A	N/A
	5 - Grovehurst Road	30.40	9.14	27.16	51.38	60.12			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	79.35	37.67	75.31	117.81	132.18			N/A	N/A
	2 - Grovehurst Road	39.82	13.27	36.13	65.84	76.47			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.30	1.26	1.65			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.02	0.03	0.26	2.02	2.02			N/A	N/A
	3 - A249 offslip (SB)	115.88	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	88.56	46.15	84.90	126.95	140.97			N/A	N/A
	5 - Grovehurst Road	53.26	20.64	49.32	84.52	96.85			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	71.95	27.85	66.72	114.54	131.25			N/A	N/A
	2 - Grovehurst Road	35.45	8.18	30.65	64.04	76.52			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.01	0.18	1.10	3.77	4.82			N/A	N/A
	3 - A249 offslip (SB)	137.36	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	90.97	42.76	86.30	135.74	152.50			N/A	N/A
	5 - Grovehurst Road	47.03	13.89	42.07	80.51	94.43			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	32.83	8.07	28.60	58.39	69.42			N/A	N/A
	2 - Grovehurst Road	15.15	0.96	10.38	33.65	43.52			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.01	0.49	1.31	3.20	3.90			N/A	N/A
	3 - A249 offslip (SB)	138.17	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	68.83	21.66	62.23	116.46	135.99			N/A	N/A
	5 - Grovehurst Road	18.08	1.87	14.01	36.55	45.53			N/A	N/A

# 2031 + K3 and WKN Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	259.45	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1729.63	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D28	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	832	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	444	100.000
	4 - Swale Way		ONE HOUR	✓	1298	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	652
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only



	4 - B2005 - link	0	262	523	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	484	322
	3 - A249 offslip (SB)	1	27	0	200	216
	4 - Swale Way	706	433	0	0	159
	5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	22
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	29	1
	3 - A249 offslip (SB)	0	11	0	8	4
	4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.25	474.13	102.9	160.2	F	763	1145
	2 - Grovehurst Road	0.49	13.77	0.9	3.5	B	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.61	0.6	2.2	A	540	810
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.46	3.86	0.8	1.4	A	750	1125
	3 - A249 offslip (SB)	0.66	14.00	1.9	6.0	B	407	611
	4 - Swale Way	2.28	4063.43	799.0	179.0	F	1191	1787
	5 - Grovehurst Road	0.85	33.88	5.2	28.1	D	490	735

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	626	157	492	800	0.783	613	0	0.0	3.3	18.159	C
	2 - Grovehurst Road	171	43	809	618	0.277	169	297	0.0	0.4	7.998	A

	3 - A249 onslip (NB)			630				348				
	4 - B2005 - link	494	123	0	1591	0.311	492	630	0.0	0.4	3.271	A
2 - South	1 - A249 onslip (SB)			569				495				
	2 - B2005 - link	630	157	79	1741	0.362	628	490	0.0	0.6	3.227	A
	3 - A249 offslip (SB)	334	84	706	905	0.369	332	0	0.0	0.6	6.253	A
	4 - Swale Way	977	244	452	711	1.373	701	586	0.0	69.0	188.846	F
	5 - Grovehurst Road	402	101	667	655	0.613	396	486	0.0	1.5	13.576	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	748	187	534	772	0.969	717	0	3.3	11.0	48.840	E
	2 - Grovehurst Road	204	51	918	543	0.376	203	333	0.4	0.6	10.567	B
	3 - A249 onslip (NB)			741				380				
	4 - B2005 - link	534	134	0	1591	0.336	534	741	0.4	0.5	3.407	A
2 - South	1 - A249 onslip (SB)			625				498				
	2 - B2005 - link	740	185	95	1732	0.428	740	530	0.6	0.7	3.627	A
	3 - A249 offslip (SB)	399	100	834	801	0.498	398	0	0.6	1.0	8.884	A
	4 - Swale Way	1167	292	536	665	1.754	665	696	69.0	194.4	742.833	F
	5 - Grovehurst Road	480	120	645	671	0.716	477	556	1.5	2.4	18.205	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	916	229	587	736	1.244	732	0	11.0	56.9	180.819	F
	2 - Grovehurst Road	250	62	965	513	0.487	249	354	0.6	0.9	13.540	B
	3 - A249 onslip (NB)			793				421				
	4 - B2005 - link	588	147	0	1591	0.369	587	793	0.5	0.6	3.588	A
2 - South	1 - A249 onslip (SB)			698				500				
	2 - B2005 - link	787	197	115	1721	0.458	787	583	0.7	0.8	3.853	A
	3 - A249 offslip (SB)	489	122	902	748	0.654	486	0	1.0	1.8	13.559	B
	4 - Swale Way	1429	357	605	627	2.278	627	783	194.4	394.9	1696.764	F
	5 - Grovehurst Road	588	147	620	688	0.854	578	612	2.4	4.8	30.089	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	916	229	592	733	1.250	732	0	56.9	102.9	397.085	F
	2 - Grovehurst Road	250	62	968	511	0.489	250	356	0.9	0.9	13.771	B
	3 - A249 onslip (NB)			794				424				
	4 - B2005 - link	592	148	0	1591	0.372	592	794	0.6	0.6	3.605	A
2 - South	1 - A249 onslip (SB)			704				501				
	2 - B2005 - link	788	197	116	1720	0.458	788	588	0.8	0.8	3.864	A
	3 - A249 offslip (SB)	489	122	905	745	0.656	489	0	1.8	1.9	13.995	B
	4 - Swale Way	1429	357	607	626	2.283	626	786	394.9	595.6	2738.762	F
	5 - Grovehurst Road	588	147	619	689	0.853	586	614	4.8	5.2	33.876	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	748	187	540	768	0.974	761	0	102.9	99.6	474.133	F
	2 - Grovehurst Road	204	51	956	516	0.395	205	345	0.9	0.7	11.613	B
	3 - A249 onslip (NB)			777				384				
	4 - B2005 - link	539	135	0	1591	0.339	540	777	0.6	0.5	3.425	A
2 - South	1 - A249 onslip (SB)			632				497				
	2 - B2005 - link	778	194	97	1730	0.449	778	535	0.8	0.8	3.781	A
	3 - A249 offslip (SB)	399	100	875	768	0.520	402	0	1.9	1.1	9.923	A
	4 - Swale Way	1167	292	555	655	1.781	655	722	595.6	723.6	3548.707	F
	5 - Grovehurst Road	480	120	639	676	0.711	490	571	5.2	2.6	20.407	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	626	157	492	801	0.782	793	0	99.6	58.1	360.232	F

1 - North	2 - Grovehurst Road	171	43	949	518	0.330	172	336	0.7	0.5	10.420	B
	3 - A249 onslip (NB)			772				348				
	4 - B2005 - link	492	123	0	1591	0.309	492	772	0.5	0.4	3.276	A
2 - South	1 - A249 onslip (SB)			568				490				
	2 - B2005 - link	778	194	81	1740	0.447	778	488	0.8	0.8	3.743	A
	3 - A249 offslip (SB)	334	84	859	780	0.429	336	0	1.1	0.8	8.129	A
	4 - Swale Way	977	244	518	675	1.447	675	676	723.6	799.0	4063.433	F
	5 - Grovehurst Road	402	101	652	666	0.604	406	541	2.6	1.6	14.059	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.28	0.05	0.71	9.16	14.75			N/A	N/A
	2 - Grovehurst Road	0.38	0.00	0.00	0.38	0.38			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.56	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.58	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	68.97	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.53	1.05	1.50	1.90	1.95			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.96	0.28	6.07	26.71	36.18			N/A	N/A
	2 - Grovehurst Road	0.59	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.74	0.21	0.93	1.39	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.97	0.09	0.92	1.58	1.91			N/A	N/A
	4 - Swale Way	194.40	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.36	0.09	1.43	5.42	7.48			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	56.90	26.42	53.78	84.91	95.50			N/A	N/A
	2 - Grovehurst Road	0.92	0.03	0.26	0.92	0.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.58	0.03	0.25	0.58	0.58			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.03	0.25	0.84	0.84			N/A	N/A
	3 - A249 offslip (SB)	1.81	0.03	0.28	1.81	6.01			N/A	N/A
	4 - Swale Way	394.86	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.83	0.04	0.44	13.49	24.90			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	102.86	59.20	99.59	141.49	155.20			N/A	N/A
	2 - Grovehurst Road	0.94	0.03	0.28	0.94	3.49			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.28	0.69	2.21			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.03	0.26	0.84	0.84			N/A	N/A
	3 - A249 offslip (SB)	1.86	0.03	0.28	1.86	4.62			N/A	N/A
	4 - Swale Way	595.63	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.22	0.03	0.34	10.22	28.05			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	99.62	50.96	95.38	143.98	160.23			N/A	N/A
	2 - Grovehurst Road	0.67	0.08	0.79	1.37	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.82	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.11	0.07	0.90	1.98	2.78			N/A	N/A
	4 - Swale Way	723.59	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.61	0.04	0.43	7.20	12.82			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	58.07	19.29	52.81	96.59	112.23			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.45	1.28	1.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.76	0.05	0.48	1.51	2.04			N/A	N/A
	4 - Swale Way	799.02	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.58	0.03	0.35	3.83	8.08			N/A	N/A

# 2031 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	1287.60	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1005.31	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D29	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1109	100.000
	2 - Grovehurst Road		ONE HOUR	✓	737	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	620	100.000
	4 - Swale Way		ONE HOUR	✓	769	100.000
	5 - Grovehurst Road		ONE HOUR	✓	775	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	123	0	986
		2 - Grovehurst Road	0	0	38	699
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	159	403	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	419	0	0	1033	231
		3 - A249 offslip (SB)	1	22	0	381	216
		4 - Swale Way	462	229	0	0	78
5 - Grovehurst Road	289	313	0	173	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	2	0	16
		2 - Grovehurst Road	0	0	5	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	4	6	0		

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	0	0	0	16	5
		3 - A249 offslip (SB)	0	5	0	9	3
		4 - Swale Way	36	10	0	0	9
5 - Grovehurst Road	0	1	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.39	968.71	240.8	240.8	F	1018	1526
	2 - Grovehurst Road	1.82	2594.76	335.5	195.8	F	676	1014
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.26	3.15	0.3	1.3	A	393	589
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	5.93	2.0	6.1	A	1203	1804
	3 - A249 offslip (SB)	1.53	1492.39	186.7	187.3	F	569	853
	4 - Swale Way	1.56	1639.88	250.5	159.3	F	706	1058
	5 - Grovehurst Road	1.57	1658.03	254.4	197.4	F	711	1067

## Main Results for each time segment

07:15 - 07:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	835	209	380	890	0.938	800	0	0.0	8.8	32.417	D
	2 - Grovehurst Road	555	139	984	501	1.108	476	196	0.0	19.6	92.507	F
	3 - A249 onslip (NB)			1163				297				
	4 - B2005 - link	382	95	0	1539	0.248	380	1163	0.0	0.3	3.105	A
2 - South	1 - A249 onslip (SB)			502				798				
	2 - B2005 - link	1163	291	118	1820	0.639	1156	384	0.0	1.7	5.367	A
	3 - A249 offslip (SB)	467	117	1274	492	0.950	436	0	0.0	7.8	50.244	F
	4 - Swale Way	579	145	614	555	1.043	520	1096	0.0	14.8	68.580	F
	5 - Grovehurst Road	583	146	771	569	1.026	529	363	0.0	13.5	63.316	F

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	997	249	394	880	1.133	871	0	8.8	40.5	115.936	F
	2 - Grovehurst Road	663	166	1057	452	1.465	451	208	19.6	72.4	384.650	F
	3 - A249 onslip (NB)			1202				306				
	4 - B2005 - link	394	99	0	1539	0.256	394	1202	0.3	0.3	3.144	A
2 - South	1 - A249 onslip (SB)			518				829				
	2 - B2005 - link	1208	302	121	1818	0.664	1207	396	1.7	1.9	5.877	A
	3 - A249 offslip (SB)	557	139	1328	450	1.238	446	0	7.8	35.7	196.179	F
	4 - Swale Way	691	173	638	544	1.271	541	1136	14.8	52.3	239.132	F
	5 - Grovehurst Road	697	174	803	546	1.276	543	376	13.5	51.8	232.936	F

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1221	305	395	880	1.388	879	0	40.5	126.0	349.636	F
	2 - Grovehurst Road	811	203	1065	447	1.816	447	209	72.4	163.6	963.203	F
	3 - A249 onslip (NB)			1205				306				
	4 - B2005 - link	395	99	0	1539	0.257	395	1205	0.3	0.3	3.146	A
2 - South	1 - A249 onslip (SB)			519				831				
	2 - B2005 - link	1211	303	121	1818	0.666	1211	397	1.9	2.0	5.929	A
	3 - A249 offslip (SB)	683	171	1333	447	1.529	446	0	35.7	94.9	541.001	F
	4 - Swale Way	847	212	640	543	1.560	543	1139	52.3	128.3	610.116	F
	5 - Grovehurst Road	853	213	806	544	1.568	544	377	51.8	129.1	609.903	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1221	305	395	880	1.388	879	0	126.0	211.4	697.019	F
	2 - Grovehurst Road	811	203	1065	447	1.817	446	209	163.6	254.9	1697.324	F
	3 - A249 onslip (NB)			1205				306				
	4 - B2005 - link	395	99	0	1539	0.257	395	1205	0.3	0.3	3.146	A
2 - South	1 - A249 onslip (SB)			519				831				
	2 - B2005 - link	1212	303	121	1818	0.666	1212	397	2.0	2.0	5.933	A
	3 - A249 offslip (SB)	683	171	1333	446	1.530	446	0	94.9	154.0	1015.005	F
	4 - Swale Way	847	212	640	543	1.560	543	1139	128.3	204.3	1112.352	F
	5 - Grovehurst Road	853	213	806	544	1.568	544	377	129.1	206.4	1119.152	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	997	249	395	880	1.134	879	0	211.4	240.8	931.319	F
	2 - Grovehurst Road	663	166	1065	447	1.484	447	209	254.9	308.9	2275.840	F
	3 - A249 onslip (NB)			1205				306				
	4 - B2005 - link	395	99	0	1539	0.257	395	1205	0.3	0.3	3.146	A
2 - South	1 - A249 onslip (SB)			519				831				
	2 - B2005 - link	1212	303	121	1818	0.666	1212	397	2.0	2.0	5.933	A
	3 - A249 offslip (SB)	557	139	1333	446	1.249	446	0	154.0	181.8	1363.538	F
	4 - Swale Way	691	173	640	543	1.274	543	1139	204.3	241.5	1486.970	F
	5 - Grovehurst Road	697	174	806	544	1.280	544	377	206.4	244.6	1500.089	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	835	209	395	879	0.949	876	0	240.8	230.5	968.710	F
	2 - Grovehurst Road	555	139	1062	449	1.237	449	209	308.9	335.5	2594.758	F
	3 - A249 onslip (NB)			1204				306				
	4 - B2005 - link	395	99	0	1539	0.257	395	1204	0.3	0.3	3.146	A
2 - South	1 - A249 onslip (SB)			519				831				
	2 - B2005 - link	1210	303	121	1818	0.666	1210	397	2.0	2.0	5.919	A
	3 - A249 offslip (SB)	467	117	1332	447	1.043	447	0	181.8	186.7	1492.392	F
	4 - Swale Way	579	145	640	543	1.067	543	1139	241.5	250.5	1639.883	F
	5 - Grovehurst Road	583	146	805	544	1.072	544	377	244.6	254.4	1658.034	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	8.85	0.03	0.28	8.85	10.37			N/A	N/A
	2 - Grovehurst Road	19.64	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.74	1.05	1.50	1.90	1.95			N/A	N/A
	3 - A249 offslip (SB)	7.79	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	14.77	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	13.50	>199	>199	>199	>199			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	40.45	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	72.44	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.94	0.08	1.21	4.42	6.11			N/A	N/A
	3 - A249 offslip (SB)	35.74	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	52.25	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	51.85	>199	>199	>199	>199			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	125.96	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	163.63	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.97	0.03	0.27	1.97	1.97			N/A	N/A
	3 - A249 offslip (SB)	94.86	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	128.29	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	129.14	>199	>199	>199	>199			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	211.36	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	254.88	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.03	0.31	1.18	1.25			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.98	0.03	0.26	1.98	1.98			N/A	N/A
	3 - A249 offslip (SB)	153.96	>199	>199	>199	>199			N/A	N/A



	<b>4 - Swale Way</b>	204.30	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	206.43	>199	>199	>199	>199			N/A	N/A

**08:15 - 08:30**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	240.76	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	308.89	>199	>199	>199	>199			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.34	0.00	0.00	0.34	0.34			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	1.99	0.11	1.41	4.09	5.51			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	181.75	>199	>199	>199	>199			N/A	N/A
	<b>4 - Swale Way</b>	241.46	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	244.57	>199	>199	>199	>199			N/A	N/A

**08:30 - 08:45**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	230.53	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	335.45	>199	>199	>199	>199			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.34	0.00	0.00	0.34	0.34			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	1.99	0.23	1.16	3.56	4.48			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	186.66	>199	>199	>199	>199			N/A	N/A
	<b>4 - Swale Way</b>	250.53	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	254.37	>199	>199	>199	>199			N/A	N/A

# 2031 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	1084.34	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	2487.54	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D30	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1192	100.000
	2 - Grovehurst Road		ONE HOUR	✓	389	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	529	100.000
	4 - Swale Way		ONE HOUR	✓	1376	100.000
	5 - Grovehurst Road		ONE HOUR	✓	613	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	430	0	762
		2 - Grovehurst Road	0	0	34	355
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	277	560	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	187	0	0	524	402
		3 - A249 offslip (SB)	1	39	0	202	287
		4 - Swale Way	780	435	0	0	161
	5 - Grovehurst Road	150	356	0	107	0	

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	0	0	19
		2 - Grovehurst Road	0	0	0	0
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0	

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	1	0	0	27	1
		3 - A249 offslip (SB)	0	8	0	8	3
		4 - Swale Way	17	3	0	0	3
	5 - Grovehurst Road	0	1	0	4	0	

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.71	1877.99	442.7	178.3	F	1094	1641
	2 - Grovehurst Road	0.73	22.96	2.6	13.2	C	357	535
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.60	0.6	2.3	A	539	809
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.48	3.93	0.9	1.5	A	824	1235
	3 - A249 offslip (SB)	0.81	26.42	4.1	20.5	D	485	728
	4 - Swale Way	2.93	6015.44	1052.3	180.3	F	1263	1894
	5 - Grovehurst Road	0.98	87.19	15.7	60.4	F	562	844

## Main Results for each time segment

16:15 - 16:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	897	224	481	846	1.061	809	0	0.0	22.1	62.591	F
	2 - Grovehurst Road	293	73	839	610	0.480	289	451	0.0	0.9	11.111	B
	3 - A249 onslip (NB)			781				347				
	4 - B2005 - link	483	121	0	1591	0.304	481	781	0.0	0.4	3.242	A
2 - South	1 - A249 onslip (SB)			561				583				
	2 - B2005 - link	777	194	79	1799	0.432	774	482	0.0	0.8	3.502	A
	3 - A249 offslip (SB)	398	100	853	813	0.490	394	0	0.0	0.9	8.535	A
	4 - Swale Way	1036	259	653	607	1.706	602	594	0.0	108.5	341.464	F
	5 - Grovehurst Road	461	115	691	655	0.705	453	564	0.0	2.2	17.135	C

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1072	268	530	812	1.320	810	0	22.1	87.4	257.387	F
	2 - Grovehurst Road	350	87	872	590	0.593	348	468	0.9	1.4	14.754	B
	3 - A249 onslip (NB)			835				385				
	4 - B2005 - link	530	133	0	1591	0.333	530	835	0.4	0.5	3.394	A
2 - South	1 - A249 onslip (SB)			624				593				
	2 - B2005 - link	824	206	95	1790	0.461	824	529	0.8	0.8	3.726	A
	3 - A249 offslip (SB)	476	119	919	760	0.626	473	0	0.9	1.6	12.408	B
	4 - Swale Way	1237	309	728	566	2.186	566	663	108.5	276.3	1303.314	F
	5 - Grovehurst Road	551	138	674	667	0.826	544	620	2.2	4.1	27.486	D

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1312	328	581	776	1.692	776	0	87.4	221.6	727.312	F
	2 - Grovehurst Road	428	107	884	584	0.733	424	472	1.4	2.5	21.790	C
	3 - A249 onslip (NB)			883				425				
	4 - B2005 - link	581	145	0	1591	0.365	581	883	0.5	0.6	3.564	A
2 - South	1 - A249 onslip (SB)			693				598				
	2 - B2005 - link	863	216	112	1780	0.485	862	580	0.8	0.9	3.922	A
	3 - A249 offslip (SB)	582	146	975	717	0.813	574	0	1.6	3.8	23.802	C
	4 - Swale Way	1515	379	811	520	2.913	520	737	276.3	525.0	2781.231	F
	5 - Grovehurst Road	675	169	648	686	0.984	644	684	4.1	11.9	59.404	F

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1312	328	590	769	1.706	769	0	221.6	357.4	1361.341	F
	2 - Grovehurst Road	428	107	886	584	0.734	428	473	2.5	2.6	22.956	C
	3 - A249 onslip (NB)			882				432				
	4 - B2005 - link	590	148	0	1591	0.371	590	882	0.6	0.6	3.597	A
2 - South	1 - A249 onslip (SB)			705				601				
	2 - B2005 - link	861	215	115	1778	0.485	861	590	0.9	0.9	3.927	A
	3 - A249 offslip (SB)	582	146	977	715	0.814	581	0	3.8	4.1	26.419	D
	4 - Swale Way	1515	379	815	518	2.926	518	743	525.0	774.4	4092.077	F
	5 - Grovehurst Road	675	169	646	687	0.983	660	687	11.9	15.7	87.191	F

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1072	268	558	792	1.354	792	0	357.4	427.4	1742.690	F
	2 - Grovehurst Road	350	87	879	586	0.596	354	470	2.6	1.5	15.776	C
	3 - A249 onslip (NB)			829				404				
	4 - B2005 - link	558	139	0	1591	0.351	558	829	0.6	0.5	3.486	A
2 - South	1 - A249 onslip (SB)			661				603				
	2 - B2005 - link	817	204	103	1785	0.458	817	557	0.9	0.9	3.722	A
	3 - A249 offslip (SB)	476	119	921	759	0.626	485	0	4.1	1.7	13.530	B
	4 - Swale Way	1237	309	732	564	2.195	564	673	774.4	942.7	5229.615	F
	5 - Grovehurst Road	551	138	672	669	0.824	592	624	15.7	5.6	54.995	F

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	897	224	495	836	1.073	836	0	427.4	442.7	1877.994	F
	2 - Grovehurst Road	293	73	866	592	0.495	295	465	1.5	1.0	12.203	B
	3 - A249 onslip (NB)			804				357				
	4 - B2005 - link	494	124	0	1591	0.311	495	804	0.5	0.5	3.285	A
2 - South	1 - A249 onslip (SB)			576				590				
	2 - B2005 - link	800	200	83	1797	0.445	800	494	0.9	0.8	3.611	A
	3 - A249 offslip (SB)	398	100	882	789	0.505	401	0	1.7	1.0	9.346	A
	4 - Swale Way	1036	259	671	598	1.733	598	612	942.7	1052.3	6015.440	F
	5 - Grovehurst Road	461	115	692	654	0.705	474	576	5.6	2.6	21.109	C

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	22.06	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.90	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.75	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.94	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	108.53	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.24	0.73	1.65	2.96	3.54			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	87.42	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.40	0.11	1.15	2.61	3.38			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.00	0.00	0.50	0.50			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.18	0.94	1.43	1.49			N/A	N/A
	3 - A249 offslip (SB)	1.61	0.07	1.00	3.66	5.11			N/A	N/A
	4 - Swale Way	276.32	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.09	0.14	1.93	9.74	13.35			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	221.60	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	2.53	0.03	0.32	4.55	13.23			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.57	0.03	0.25	0.57	0.57			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.93	0.03	0.25	0.93	0.93			N/A	N/A
	3 - A249 offslip (SB)	3.82	0.04	0.37	9.38	20.52			N/A	N/A
	4 - Swale Way	525.04	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	11.94	0.27	6.48	29.44	40.07			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	357.43	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	2.63	0.03	0.29	2.63	10.21			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.28	0.78	2.29			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.94	0.03	0.26	0.94	0.94			N/A	N/A
	3 - A249 offslip (SB)	4.07	0.03	0.31	5.23	19.70			N/A	N/A

	4 - Swale Way	774.37	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	15.73	0.17	6.51	42.23	60.38			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	427.42	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.53	0.05	0.50	3.88	5.99			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.54	0.54	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.74	0.04	0.44	4.64	7.69			N/A	N/A
	4 - Swale Way	942.72	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.60	0.05	0.49	16.06	28.08			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	442.70	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.00	0.04	0.39	2.50	4.26			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.04	0.03	0.34	2.44	5.11			N/A	N/A
	4 - Swale Way	1052.30	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.55	0.03	0.34	5.68	13.64			N/A	N/A

# 2031 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	1328.29	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1044.53	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D33	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1118	100.000
	2 - Grovehurst Road		ONE HOUR	✓	737	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	620	100.000
	4 - Swale Way		ONE HOUR	✓	779	100.000
	5 - Grovehurst Road		ONE HOUR	✓	775	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	123	0	995
		2 - Grovehurst Road	0	0	38	699
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	159	403	0

## Demand (Veh/hr)

2 - South	From		To				
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	419	0	0	1042	231
		3 - A249 offslip (SB)	1	22	0	381	216
		4 - Swale Way	472	229	0	0	78
5 - Grovehurst Road	289	313	0	173	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From		To			
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	2	0	17
		2 - Grovehurst Road	0	0	5	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	4	6	0		

## Heavy Vehicle Percentages

2 - South	From		To				
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	0	0	0	16	5
		3 - A249 offslip (SB)	0	5	0	9	3
		4 - Swale Way	38	10	0	0	1
5 - Grovehurst Road	0	1	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.41	1034.46	254.3	254.3	F	1026	1539
	2 - Grovehurst Road	1.82	2617.87	337.8	195.8	F	676	1014
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.25	3.14	0.3	1.2	A	389	583
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	5.96	2.0	6.2	A	1206	1809
	3 - A249 offslip (SB)	1.54	1521.31	189.6	187.3	F	569	853
	4 - Swale Way	1.58	1736.41	265.6	158.6	F	715	1072
	5 - Grovehurst Road	1.58	1699.40	259.4	197.4	F	711	1067

## Main Results for each time segment

07:15 - 07:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay



Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	842	210	377	885	0.951	803	0	0.0	9.8	34.736	D
	2 - Grovehurst Road	555	139	985	495	1.120	472	195	0.0	20.6	96.686	F
	3 - A249 onslip (NB)			1162				295				
	4 - B2005 - link	379	95	0	1539	0.246	377	1162	0.0	0.3	3.097	A
2 - South	1 - A249 onslip (SB)			499				801				
	2 - B2005 - link	1170	292	117	1820	0.643	1163	381	0.0	1.8	5.419	A
	3 - A249 offslip (SB)	467	117	1280	487	0.959	434	0	0.0	8.2	52.355	F
	4 - Swale Way	586	147	614	553	1.061	521	1100	0.0	16.4	73.730	F
	5 - Grovehurst Road	583	146	773	563	1.036	526	362	0.0	14.3	66.312	F

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1005	251	390	876	1.147	868	0	9.8	44.0	125.272	F
	2 - Grovehurst Road	663	166	1052	450	1.471	450	206	20.6	73.8	395.190	F
	3 - A249 onslip (NB)			1199				303				
	4 - B2005 - link	390	98	0	1539	0.254	390	1199	0.3	0.3	3.133	A
2 - South	1 - A249 onslip (SB)			513				829				
	2 - B2005 - link	1211	303	121	1818	0.666	1210	393	1.8	2.0	5.912	A
	3 - A249 offslip (SB)	557	139	1331	448	1.245	443	0	8.2	36.7	202.499	F
	4 - Swale Way	700	175	636	542	1.291	540	1138	16.4	56.3	257.987	F
	5 - Grovehurst Road	697	174	802	542	1.285	540	374	14.3	53.5	242.327	F

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1231	308	391	875	1.406	875	0	44.0	133.0	372.776	F
	2 - Grovehurst Road	811	203	1059	446	1.820	446	207	73.8	165.3	977.243	F
	3 - A249 onslip (NB)			1202				303				
	4 - B2005 - link	391	98	0	1539	0.254	391	1202	0.3	0.3	3.135	A
2 - South	1 - A249 onslip (SB)			514				831				
	2 - B2005 - link	1214	304	121	1818	0.668	1214	393	2.0	2.0	5.959	A
	3 - A249 offslip (SB)	683	171	1335	444	1.536	444	0	36.7	96.3	553.131	F
	4 - Swale Way	858	214	638	541	1.584	541	1141	56.3	135.4	648.718	F
	5 - Grovehurst Road	853	213	804	541	1.578	541	375	53.5	131.7	627.506	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1231	308	391	875	1.406	875	0	133.0	221.9	736.250	F
	2 - Grovehurst Road	811	203	1059	446	1.821	446	207	165.3	256.7	1714.591	F
	3 - A249 onslip (NB)			1202				303				
	4 - B2005 - link	391	98	0	1539	0.254	391	1202	0.3	0.3	3.135	A
2 - South	1 - A249 onslip (SB)			514				831				
	2 - B2005 - link	1215	304	121	1818	0.668	1215	393	2.0	2.0	5.963	A
	3 - A249 offslip (SB)	683	171	1335	444	1.537	444	0	96.3	155.9	1033.425	F
	4 - Swale Way	858	214	638	541	1.584	541	1142	135.4	214.5	1172.807	F
	5 - Grovehurst Road	853	213	804	541	1.578	541	375	131.7	209.8	1145.695	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1005	251	391	875	1.148	875	0	221.9	254.3	985.068	F
	2 - Grovehurst Road	663	166	1059	446	1.487	446	207	256.7	310.9	2296.226	F
	3 - A249 onslip (NB)			1202				303				
	4 - B2005 - link	391	98	0	1539	0.254	391	1202	0.3	0.3	3.135	A
2 - South	1 - A249 onslip (SB)			514				831				
	2 - B2005 - link	1215	304	121	1818	0.668	1215	393	2.0	2.0	5.963	A
	3 - A249 offslip (SB)	557	139	1335	444	1.255	444	0	155.9	184.2	1387.645	F
	4 - Swale Way	700	175	638	541	1.294	541	1142	214.5	254.3	1567.178	F
	5 - Grovehurst Road	697	174	804	541	1.288	541	375	209.8	248.8	1534.733	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	842	210	391	875	0.962	872	0	254.3	246.8	1034.455	F
	2 - Grovehurst Road	555	139	1056	448	1.240	448	207	310.9	337.8	2617.872	F
	3 - A249 onslip (NB)			1201				303				
	4 - B2005 - link	391	98	0	1539	0.254	391	1201	0.3	0.3	3.135	A
2 - South	1 - A249 onslip (SB)			514				831				
	2 - B2005 - link	1213	303	121	1818	0.667	1213	393	2.0	2.0	5.949	A
	3 - A249 offslip (SB)	467	117	1334	445	1.048	445	0	184.2	189.6	1521.308	F
	4 - Swale Way	586	147	638	541	1.083	541	1141	254.3	265.6	1736.407	F
	5 - Grovehurst Road	583	146	804	541	1.079	541	375	248.8	259.4	1699.399	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	9.75	0.03	0.27	9.75	9.75			N/A	N/A
	2 - Grovehurst Road	20.60	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.77	1.05	1.50	1.90	1.95			N/A	N/A
	3 - A249 offslip (SB)	8.20	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	16.35	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	14.29	>199	>199	>199	>199			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	44.02	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	73.84	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.96	0.08	1.21	4.47	6.20			N/A	N/A
	3 - A249 offslip (SB)	36.70	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	56.33	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	53.51	>199	>199	>199	>199			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	133.00	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	165.25	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.03	0.27	1.99	1.99			N/A	N/A
	3 - A249 offslip (SB)	96.32	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	135.45	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	131.66	>199	>199	>199	>199			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	221.89	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	256.71	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.03	0.31	1.17	1.20			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.00	0.03	0.26	2.00	2.00			N/A	N/A
	3 - A249 offslip (SB)	155.93	>199	>199	>199	>199			N/A	N/A

	<b>4 - Swale Way</b>	214.54	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	209.79	>199	>199	>199	>199			N/A	N/A

**08:15 - 08:30**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	254.32	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	310.94	>199	>199	>199	>199			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.34	0.00	0.00	0.34	0.34			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	2.00	0.11	1.40	4.17	5.61			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	184.22	>199	>199	>199	>199			N/A	N/A
	<b>4 - Swale Way</b>	254.28	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	248.78	>199	>199	>199	>199			N/A	N/A

**08:30 - 08:45**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	246.75	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	337.75	>199	>199	>199	>199			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.34	0.00	0.00	0.34	0.34			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	2.00	0.22	1.16	3.61	4.56			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	189.63	>199	>199	>199	>199			N/A	N/A
	<b>4 - Swale Way</b>	265.56	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	259.44	>199	>199	>199	>199			N/A	N/A

# 2031 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	1118.18	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	2598.38	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D34	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1197	100.000
	2 - Grovehurst Road		ONE HOUR	✓	389	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	529	100.000
	4 - Swale Way		ONE HOUR	✓	1396	100.000
	5 - Grovehurst Road		ONE HOUR	✓	613	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	430	0	767
		2 - Grovehurst Road	0	0	34	355
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	277	561	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	187	0	0	528	402
		3 - A249 offslip (SB)	1	39	0	202	287
		4 - Swale Way	799	436	0	0	161
5 - Grovehurst Road	150	356	0	107	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	0	0	20
		2 - Grovehurst Road	0	0	0	0
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	0	3	0		

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	1	0	0	28	1
		3 - A249 offslip (SB)	0	8	0	8	3
		4 - Swale Way	18	3	0	0	3
5 - Grovehurst Road	0	1	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.72	1925.84	453.1	177.3	F	1098	1648
	2 - Grovehurst Road	0.74	23.19	2.7	13.4	C	357	535
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.59	0.6	2.3	A	536	805
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.49	3.96	0.9	1.5	A	824	1236
	3 - A249 offslip (SB)	0.82	26.99	4.2	20.9	D	485	728
	4 - Swale Way	2.98	6219.54	1083.6	179.2	F	1281	1921
	5 - Grovehurst Road	0.99	88.31	15.9	60.6	F	562	844

## Main Results for each time segment

16:15 - 16:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	901	225	478	843	1.069	808	0	0.0	23.2	65.101	F
	2 - Grovehurst Road	293	73	838	607	0.482	289	448	0.0	0.9	11.188	B
	3 - A249 onslip (NB)			782				345				
	4 - B2005 - link	480	120	0	1591	0.302	478	782	0.0	0.4	3.232	A
2 - South	1 - A249 onslip (SB)			558				584				
	2 - B2005 - link	778	195	79	1790	0.435	775	479	0.0	0.8	3.536	A
	3 - A249 offslip (SB)	398	100	854	808	0.493	394	0	0.0	1.0	8.621	A
	4 - Swale Way	1051	263	653	604	1.740	599	596	0.0	113.0	357.078	F
	5 - Grovehurst Road	461	115	689	654	0.706	452	562	0.0	2.3	17.219	C

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1076	269	527	809	1.330	808	0	23.2	90.3	267.295	F
	2 - Grovehurst Road	350	87	870	588	0.595	348	464	0.9	1.4	14.853	B
	3 - A249 onslip (NB)			835				383				
	4 - B2005 - link	527	132	0	1591	0.331	527	835	0.4	0.5	3.384	A
2 - South	1 - A249 onslip (SB)			621				594				
	2 - B2005 - link	825	206	95	1781	0.463	824	526	0.8	0.9	3.759	A
	3 - A249 offslip (SB)	476	119	919	757	0.628	473	0	1.0	1.6	12.549	B
	4 - Swale Way	1255	314	727	563	2.228	563	665	113.0	286.0	1357.277	F
	5 - Grovehurst Road	551	138	672	666	0.827	544	618	2.3	4.1	27.676	D

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1318	329	578	773	1.705	773	0	90.3	226.5	748.011	F
	2 - Grovehurst Road	428	107	882	583	0.735	424	469	1.4	2.6	21.981	C
	3 - A249 onslip (NB)			882				424				
	4 - B2005 - link	578	144	0	1591	0.363	578	882	0.5	0.6	3.554	A
2 - South	1 - A249 onslip (SB)			690				599				
	2 - B2005 - link	862	216	112	1771	0.487	862	578	0.9	0.9	3.957	A
	3 - A249 offslip (SB)	582	146	974	714	0.816	573	0	1.6	3.9	24.228	C
	4 - Swale Way	1537	384	809	518	2.967	518	739	286.0	540.7	2879.870	F
	5 - Grovehurst Road	675	169	646	685	0.986	643	681	4.1	12.1	59.954	F

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1318	329	587	767	1.719	767	0	226.5	364.4	1393.767	F
	2 - Grovehurst Road	428	107	884	582	0.736	428	469	2.6	2.7	23.188	C
	3 - A249 onslip (NB)			882				430				
	4 - B2005 - link	587	147	0	1591	0.369	587	882	0.6	0.6	3.587	A
2 - South	1 - A249 onslip (SB)			702				602				
	2 - B2005 - link	861	215	115	1770	0.487	861	587	0.9	0.9	3.962	A
	3 - A249 offslip (SB)	582	146	976	712	0.818	581	0	3.9	4.2	26.988	D
	4 - Swale Way	1537	384	814	516	2.981	516	744	540.7	796.0	4222.757	F
	5 - Grovehurst Road	675	169	644	686	0.984	659	685	12.1	15.9	88.308	F

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1076	269	555	789	1.364	789	0	364.4	436.2	1782.624	F
	2 - Grovehurst Road	350	87	877	585	0.598	354	467	2.7	1.5	15.894	C
	3 - A249 onslip (NB)			829				403				
	4 - B2005 - link	555	139	0	1591	0.349	555	829	0.6	0.5	3.480	A
2 - South	1 - A249 onslip (SB)			658				604				
	2 - B2005 - link	817	204	103	1777	0.460	818	555	0.9	0.9	3.757	A
	3 - A249 offslip (SB)	476	119	921	756	0.629	485	0	4.2	1.8	13.716	B
	4 - Swale Way	1255	314	731	561	2.237	561	675	796.0	969.5	5400.549	F
	5 - Grovehurst Road	551	138	670	668	0.825	592	622	15.9	5.7	56.090	F

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	901	225	492	834	1.081	833	0	436.2	453.1	1925.840	F
	2 - Grovehurst Road	293	73	863	590	0.496	295	462	1.5	1.0	12.273	B
	3 - A249 onslip (NB)			803				355				
	4 - B2005 - link	491	123	0	1591	0.309	492	803	0.5	0.4	3.279	A
2 - South	1 - A249 onslip (SB)			573				591				
	2 - B2005 - link	800	200	83	1788	0.447	800	491	0.9	0.8	3.645	A
	3 - A249 offslip (SB)	398	100	883	786	0.507	401	0	1.8	1.0	9.433	A
	4 - Swale Way	1051	263	670	595	1.767	595	614	969.5	1083.6	6219.536	F
	5 - Grovehurst Road	461	115	690	653	0.707	474	574	5.7	2.6	21.277	C

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	23.22	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.91	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.76	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.95	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	113.03	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.25	0.74	1.65	2.97	3.57			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	90.34	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.41	0.11	1.15	2.63	3.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.49	0.00	0.00	0.49	0.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.86	0.17	0.94	1.00	1.00			N/A	N/A
	3 - A249 offslip (SB)	1.63	0.07	1.01	3.71	5.21			N/A	N/A
	4 - Swale Way	285.95	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.12	0.14	1.94	9.80	13.43			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	226.54	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	2.55	0.03	0.32	4.67	13.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.57	0.03	0.25	0.57	0.57			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.94	0.03	0.25	0.94	0.94			N/A	N/A
	3 - A249 offslip (SB)	3.89	0.04	0.37	9.72	20.90			N/A	N/A
	4 - Swale Way	540.68	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	12.07	0.29	6.64	29.65	40.27			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	364.39	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	2.66	0.03	0.29	2.66	10.41			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.58	0.03	0.28	0.82	2.31			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.94	0.03	0.26	0.94	0.94			N/A	N/A
	3 - A249 offslip (SB)	4.15	0.03	0.31	5.60	20.34			N/A	N/A

	<b>4 - Swale Way</b>	796.03	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	15.95	0.18	6.78	42.57	60.57			N/A	N/A

**17:15 - 17:30**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	436.22	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	1.55	0.05	0.49	3.92	6.07			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.54	0.54	1.00	1.40	1.45			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	0.86	0.55	1.00	1.40	1.45			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	1.76	0.04	0.44	4.70	7.84			N/A	N/A
	<b>4 - Swale Way</b>	969.51	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	5.67	0.05	0.50	16.26	28.36			N/A	N/A

**17:30 - 17:45**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	453.14	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	1.01	0.04	0.39	2.52	4.31			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.45	0.00	0.00	0.45	0.45			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	1.05	0.03	0.34	2.44	5.19			N/A	N/A
	<b>4 - Swale Way</b>	1083.56	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	2.57	0.03	0.34	5.71	13.72			N/A	N/A



# Junctions 9

## ARCADY 9 - Roundabout Module

Version: 9.0.2.5947  
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**Filename:** Dumbbell\_Existing.j9

**Path:** P:\JNY9290 - Kemsley K5\Transport\Arcady\WKN DCO\North and South Dumbell Roundabouts

**Report generation date:** 18/03/2019 09:43:33

»2017, AM  
 »2017, PM  
 »2024, AM  
 »2024, PM  
 »2024 + Cumulative Development, AM  
 »2024 + Cumulative Development, PM  
 »2024 + K3 Operational, AM  
 »2024 + K3 Operational, PM  
 »2024 + WKN Operational, AM  
 »2024 + WKN Operational, PM  
 »2024 + K3 and WKN Operational, AM  
 »2024 + K3 and WKN Operational, PM  
 »2024 + K3 Operational + Cumulative Development, AM  
 »2024 + K3 Operational + Cumulative Development, PM  
 »2024 + WKN Operational + Cumulative Development, AM  
 »2024 + WKN Operational + Cumulative Development, PM  
 »2024 + K3 and WKN Operational + Cumulative Development, AM  
 »2024 + K3 and WKN Operational + Cumulative Development, PM  
 »2031, AM  
 »2031, PM  
 »2031 + Cumulative Development, AM  
 »2031 + Cumulative Development, PM  
 »2031 + K3 Operational, AM  
 »2031 + K3 Operational, PM  
 »2031 + WKN Operational, AM  
 »2031 + WKN Operational, PM  
 »2031 + K3 and WKN Operational, AM  
 »2031 + K3 and WKN Operational, PM  
 »2031 + K3 Operational + Cumulative Development, AM  
 »2031 + K3 Operational + Cumulative Development, PM  
 »2031 + WKN Operational + Cumulative Development, AM  
 »2031 + WKN Operational + Cumulative Development, PM  
 »2031 + K3 and WKN Operational + Cumulative Development, AM  
 »2031 + K3 and WKN Operational + Cumulative Development, PM

### Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
<b>2017</b>						
1 - North - 1 - A249 offslip (NB)	6.5	33.77	0.88	43.4	176.66	1.09
1 - North - 2 - Grovehurst Road	6.5	57.68	0.90	0.8	12.71	0.46
1 - North - 4 - B2005 - link	0.4	3.33	0.30	0.6	3.65	0.38
2 - South - 2 - B2005 - link	1.5	4.97	0.60	0.8	3.54	0.44
2 - South - 3 - A249 offslip (SB)	23.4	138.98	1.06	1.5	11.60	0.61
2 - South - 4 - Swale Way	14.6	90.60	0.98	362.8	1810.92	1.74
2 - South - 5 - Grovehurst Road	17.8	101.37	1.01	4.4	28.52	0.83

	2024					
1 - North - 1 - A249 offslip (NB)	72.4	298.81	1.15	97.1	441.17	1.24
1 - North - 2 - Grovehurst Road	39.1	320.92	1.16	0.9	13.73	0.49
1 - North - 4 - B2005 - link	0.4	3.31	0.29	0.6	3.64	0.37
2 - South - 2 - B2005 - link	2.0	6.18	0.67	0.8	3.82	0.46
2 - South - 3 - A249 offslip (SB)	133.6	1124.24	1.49	1.8	13.74	0.65
2 - South - 4 - Swale Way	76.2	438.92	1.20	764.7	3878.15	2.24
2 - South - 5 - Grovehurst Road	51.7	297.54	1.15	5.1	33.36	0.85
<b>2024 + Cumulative Development</b>						
1 - North - 1 - A249 offslip (NB)	94.3	406.38	1.20	153.9	693.91	1.34
1 - North - 2 - Grovehurst Road	46.7	403.85	1.19	1.1	14.86	0.52
1 - North - 4 - B2005 - link	0.4	3.27	0.28	0.6	3.64	0.38
2 - South - 2 - B2005 - link	2.0	6.06	0.66	0.9	3.87	0.46
2 - South - 3 - A249 offslip (SB)	146.9	1194.90	1.49	2.4	16.93	0.71
2 - South - 4 - Swale Way	98.7	585.20	1.26	835.6	4510.73	2.43
2 - South - 5 - Grovehurst Road	135.3	769.71	1.34	8.2	48.39	0.91
<b>2024 + K3 Operational</b>						
1 - North - 1 - A249 offslip (NB)	72.9	300.60	1.15	101.4	467.32	1.25
1 - North - 2 - Grovehurst Road	39.2	321.84	1.16	0.9	13.78	0.49
1 - North - 4 - B2005 - link	0.4	3.30	0.29	0.6	3.64	0.37
2 - South - 2 - B2005 - link	2.0	6.20	0.67	0.8	3.83	0.46
2 - South - 3 - A249 offslip (SB)	134.5	1134.31	1.49	1.8	13.84	0.65
2 - South - 4 - Swale Way	80.0	465.37	1.21	771.1	3927.96	2.25
2 - South - 5 - Grovehurst Road	52.1	303.49	1.15	5.2	33.46	0.85
<b>2024 + WKN Operational</b>						
1 - North - 1 - A249 offslip (NB)	75.4	312.69	1.16	101.5	466.82	1.25
1 - North - 2 - Grovehurst Road	39.4	324.78	1.16	0.9	13.79	0.49
1 - North - 4 - B2005 - link	0.4	3.29	0.29	0.6	3.63	0.37
2 - South - 2 - B2005 - link	2.0	6.26	0.67	0.8	3.86	0.46
2 - South - 3 - A249 offslip (SB)	136.2	1152.20	1.50	1.9	13.98	0.66
2 - South - 4 - Swale Way	86.0	499.91	1.23	795.3	4046.98	2.28
2 - South - 5 - Grovehurst Road	52.8	310.97	1.15	5.2	33.79	0.85
<b>2024 + K3 and WKN Operational</b>						
1 - North - 1 - A249 offslip (NB)	79.4	335.56	1.17	102.9	474.13	1.25
1 - North - 2 - Grovehurst Road	39.8	329.00	1.16	0.9	13.77	0.49
1 - North - 4 - B2005 - link	0.4	3.29	0.28	0.6	3.61	0.37
2 - South - 2 - B2005 - link	2.0	6.28	0.67	0.8	3.86	0.46
2 - South - 3 - A249 offslip (SB)	138.2	1171.76	1.50	1.9	14.00	0.66
2 - South - 4 - Swale Way	91.0	527.84	1.24	799.0	4063.43	2.28
2 - South - 5 - Grovehurst Road	53.3	314.99	1.15	5.2	33.88	0.85
<b>2024 + K3 Operational + Cumulative Development</b>						
1 - North - 1 - A249 offslip (NB)	95.1	409.50	1.20	156.2	702.80	1.35
1 - North - 2 - Grovehurst Road	46.7	404.72	1.19	1.1	14.88	0.52
1 - North - 4 - B2005 - link	0.4	3.26	0.28	0.6	3.63	0.38
2 - South - 2 - B2005 - link	2.0	6.07	0.67	0.9	3.89	0.47
2 - South - 3 - A249 offslip (SB)	147.7	1203.05	1.49	2.4	16.99	0.72
2 - South - 4 - Swale Way	102.4	604.90	1.27	840.9	4550.59	2.44
2 - South - 5 - Grovehurst Road	135.9	773.65	1.34	8.3	48.89	0.91
<b>2024 + WKN Operational + Cumulative Development</b>						
1 - North - 1 - A249 offslip (NB)	101.8	446.38	1.21	156.3	701.55	1.35
1 - North - 2 - Grovehurst Road	47.3	410.43	1.19	1.1	14.89	0.52
1 - North - 4 - B2005 - link	0.4	3.25	0.28	0.6	3.62	0.38
2 - South - 2 - B2005 - link	2.0	6.13	0.67	0.9	3.90	0.47
2 - South - 3 - A249 offslip (SB)	150.3	1227.40	1.50	2.5	17.21	0.72
2 - South - 4 - Swale Way	109.3	642.42	1.28	865.4	4686.18	2.47
2 - South - 5 - Grovehurst Road	137.4	784.93	1.34	8.3	49.16	0.92
<b>2024 + K3 and WKN Operational + Cumulative Development</b>						
1 - North - 1 - A249 offslip (NB)	102.3	448.13	1.21	163.1	732.82	1.36
1 - North - 2 - Grovehurst Road	47.3	411.69	1.19	1.1	14.94	0.52
1 - North - 4 - B2005 - link	0.4	3.25	0.28	0.6	3.62	0.38
2 - South - 2 - B2005 - link	2.0	6.14	0.67	0.9	3.91	0.47
2 - South - 3 - A249 offslip (SB)	151.3	1237.30	1.50	2.5	17.19	0.72
2 - South - 4 - Swale Way	114.6	673.04	1.29	869.3	4704.58	2.48
2 - South - 5 - Grovehurst Road	138.2	791.02	1.34	8.4	49.32	0.92

	2031					
1 - North - 1 - A249 offslip (NB)	72.4	298.81	1.15	97.1	441.17	1.24
1 - North - 2 - Grovehurst Road	39.1	320.92	1.16	0.9	13.73	0.49
1 - North - 4 - B2005 - link	0.4	3.31	0.29	0.6	3.64	0.37
2 - South - 2 - B2005 - link	2.0	6.18	0.67	0.8	3.82	0.46
2 - South - 3 - A249 offslip (SB)	133.6	1124.24	1.49	1.8	13.74	0.65
2 - South - 4 - Swale Way	76.2	438.92	1.20	764.7	3878.15	2.24
2 - South - 5 - Grovehurst Road	51.7	297.54	1.15	5.1	33.36	0.85
<b>2031 + Cumulative Development</b>						
1 - North - 1 - A249 offslip (NB)	238.6	959.12	1.39	440.0	1867.33	1.70
1 - North - 2 - Grovehurst Road	335.2	2591.72	1.82	2.6	22.91	0.73
1 - North - 4 - B2005 - link	0.3	3.15	0.26	0.6	3.60	0.37
2 - South - 2 - B2005 - link	2.0	5.93	0.67	0.9	3.92	0.48
2 - South - 3 - A249 offslip (SB)	186.2	1488.03	1.53	4.1	26.35	0.81
2 - South - 4 - Swale Way	246.8	1617.59	1.55	1050.3	6009.28	2.93
2 - South - 5 - Grovehurst Road	256.8	1678.33	1.57	15.7	86.96	0.98
<b>2031 + K3 Operational</b>						
1 - North - 1 - A249 offslip (NB)	72.9	300.60	1.15	101.3	466.83	1.25
1 - North - 2 - Grovehurst Road	39.2	321.84	1.16	0.9	13.78	0.49
1 - North - 4 - B2005 - link	0.4	3.30	0.29	0.6	3.64	0.37
2 - South - 2 - B2005 - link	2.0	6.20	0.67	0.8	3.83	0.46
2 - South - 3 - A249 offslip (SB)	134.5	1134.31	1.49	1.8	13.84	0.65
2 - South - 4 - Swale Way	80.0	465.37	1.21	772.5	3935.47	2.25
2 - South - 5 - Grovehurst Road	52.1	303.49	1.15	5.2	33.47	0.85
<b>2031 + WKN Operational</b>						
1 - North - 1 - A249 offslip (NB)	75.4	312.69	1.16	101.5	466.82	1.25
1 - North - 2 - Grovehurst Road	39.4	324.78	1.16	0.9	13.79	0.49
1 - North - 4 - B2005 - link	0.4	3.29	0.29	0.6	3.63	0.37
2 - South - 2 - B2005 - link	2.0	6.26	0.67	0.8	3.86	0.46
2 - South - 3 - A249 offslip (SB)	136.2	1152.20	1.50	1.9	13.98	0.66
2 - South - 4 - Swale Way	86.0	499.91	1.23	795.3	4046.98	2.28
2 - South - 5 - Grovehurst Road	52.8	310.97	1.15	5.2	33.79	0.85
<b>2031 + K3 and WKN Operational</b>						
1 - North - 1 - A249 offslip (NB)	79.4	335.56	1.17	102.9	474.13	1.25
1 - North - 2 - Grovehurst Road	39.8	329.00	1.16	0.9	13.77	0.49
1 - North - 4 - B2005 - link	0.4	3.29	0.28	0.6	3.61	0.37
2 - South - 2 - B2005 - link	2.0	6.28	0.67	0.8	3.86	0.46
2 - South - 3 - A249 offslip (SB)	138.2	1171.76	1.50	1.9	14.00	0.66
2 - South - 4 - Swale Way	91.0	527.84	1.24	799.0	4063.43	2.28
2 - South - 5 - Grovehurst Road	53.3	314.99	1.15	5.2	33.88	0.85
<b>2031 + K3 Operational + Cumulative Development</b>						
1 - North - 1 - A249 offslip (NB)	240.8	968.71	1.39	442.7	1877.99	1.71
1 - North - 2 - Grovehurst Road	335.5	2594.76	1.82	2.6	22.96	0.73
1 - North - 4 - B2005 - link	0.3	3.15	0.26	0.6	3.60	0.37
2 - South - 2 - B2005 - link	2.0	5.93	0.67	0.9	3.93	0.48
2 - South - 3 - A249 offslip (SB)	186.7	1492.39	1.53	4.1	26.42	0.81
2 - South - 4 - Swale Way	250.5	1639.88	1.56	1052.3	6015.44	2.93
2 - South - 5 - Grovehurst Road	254.4	1658.03	1.57	15.7	87.19	0.98
<b>2031 + WKN Operational + Cumulative Development</b>						
1 - North - 1 - A249 offslip (NB)	253.3	1031.12	1.41	442.5	1872.95	1.70
1 - North - 2 - Grovehurst Road	337.6	2615.81	1.82	2.6	22.98	0.73
1 - North - 4 - B2005 - link	0.3	3.14	0.26	0.6	3.59	0.37
2 - South - 2 - B2005 - link	2.0	5.96	0.67	0.9	3.94	0.49
2 - South - 3 - A249 offslip (SB)	189.1	1516.25	1.54	4.1	26.68	0.82
2 - South - 4 - Swale Way	262.8	1721.62	1.58	1081.9	6217.64	2.98
2 - South - 5 - Grovehurst Road	255.6	1667.58	1.57	15.9	87.98	0.99
<b>2031 + K3 and WKN Operational + Cumulative Development</b>						
1 - North - 1 - A249 offslip (NB)	254.3	1034.46	1.41	453.1	1925.84	1.72
1 - North - 2 - Grovehurst Road	337.8	2617.87	1.82	2.7	23.19	0.74
1 - North - 4 - B2005 - link	0.3	3.14	0.25	0.6	3.59	0.37
2 - South - 2 - B2005 - link	2.0	5.96	0.67	0.9	3.96	0.49
2 - South - 3 - A249 offslip (SB)	189.6	1521.31	1.54	4.2	26.99	0.82
2 - South - 4 - Swale Way	265.6	1736.41	1.58	1083.6	6219.54	2.98
2 - South - 5 - Grovehurst Road	259.4	1699.40	1.58	15.9	88.31	0.99

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

## File summary

### File Description

Title	(untitled)
Location	
Site number	
Date	26/01/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR\Ben.Dance
Description	

## Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

## Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓			0.85	36.00	20.00

## Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D9	2024 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D10	2024 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D15	2024 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D16	2024 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓

<b>D21</b>	2031 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
<b>D22</b>	2031 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
<b>D23</b>	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
<b>D24</b>	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
<b>D25</b>	2031 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
<b>D26</b>	2031 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
<b>D27</b>	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
<b>D28</b>	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
<b>D29</b>	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
<b>D30</b>	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
<b>D31</b>	2031 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
<b>D32</b>	2031 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
<b>D33</b>	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
<b>D34</b>	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

### Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
<b>A1</b>	✓	100.000	100.000

# 2017, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	31.15	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	69.23	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Junction	Arm	Name	Description
1 - North	1	A249 offslip (NB)	
	2	Grovehurst Road	
	3	A249 onslip (NB)	
	4	B2005 - link	
2 - South	1	A249 onslip (SB)	
	2	B2005 - link	
	3	A249 offslip (SB)	
	4	Swale Way	
	5	Grovehurst Road	

### Roundabout Geometry

Junction	Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - North	1 - A249 offslip (NB)	7.90	8.10	5.8	14.0	37.0	32.0	
	2 - Grovehurst Road	3.71	6.74	20.2	10.1	37.0	45.0	
	3 - A249 onslip (NB)							✓
	4 - B2005 - link	3.75	7.64	13.4	11.9	37.0	41.0	
2 - South	1 - A249 onslip (SB)							✓
	2 - B2005 - link	3.66	6.17	14.7	27.2	36.3	36.0	
	3 - A249 offslip (SB)	8.03	8.04	0.1	10.1	39.2	32.0	
	4 - Swale Way	3.50	7.96	21.2	12.1	39.2	55.0	
	5 - Grovehurst Road	3.73	7.17	15.3	19.5	44.6	39.0	

### Slope / Intercept / Capacity

#### Arm Intercept Adjustments

Junction	Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - North	1 - A249 offslip (NB)	Direct		-1050
	2 - Grovehurst Road	Direct		-400
	3 - A249 onslip (NB)			
	4 - B2005 - link	None		
2 - South	1 - A249 onslip (SB)			
	2 - B2005 - link	Direct		500
	3 - A249 offslip (SB)	Direct		-730
	4 - Swale Way	Direct		-575

5 - Grovehurst Road	Direct	-550
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### Roundabout Slope and Intercept used in model

Junction	Arm	Final slope	Final intercept (PCU/hr)
1 - North	1 - A249 offslip (NB)	0.777	1330
	2 - Grovehurst Road	0.591	1170
	3 - A249 onslip (NB)		
	4 - B2005 - link	0.611	1622
2 - South	1 - A249 onslip (SB)		
	2 - B2005 - link	0.624	2088
	3 - A249 offslip (SB)	0.748	1572
	4 - Swale Way	0.597	1071
	5 - Grovehurst Road	0.616	1130

The slope and intercept shown above include any corrections and adjustments.

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	669	100.000
	2 - Grovehurst Road		ONE HOUR	✓	398	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	518	100.000
	4 - Swale Way		ONE HOUR	✓	544	100.000
	5 - Grovehurst Road		ONE HOUR	✓	573	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	627
		2 - Grovehurst Road	0	0	25	373
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	136	305	0

### Demand (Veh/hr)

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
2 - South	From					
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only

From	2 - B2005 - link	141	0	0	674	183
	3 - A249 offslip (SB)	1	18	0	325	174
	4 - Swale Way	285	194	0	0	65
	5 - Grovehurst Road	206	233	0	134	0

## Vehicle Mix

### Heavy Vehicle Percentages

1 - North

From	To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
	1 - A249 offslip (NB)	0	7	0	14
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	3	5	0	

### Heavy Vehicle Percentages

2 - South

From	To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	13	6
	3 - A249 offslip (SB)	0	6	0	5	4
	4 - Swale Way	32	7	0	0	6
5 - Grovehurst Road	1	2	0	3	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.88	33.77	6.5	35.5	D	614	921
	2 - Grovehurst Road	0.90	57.68	6.5	33.7	F	365	548
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.30	3.33	0.4	1.8	A	407	611
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.60	4.97	1.5	2.0	A	917	1375
	3 - A249 offslip (SB)	1.06	138.98	23.4	62.7	F	475	713
	4 - Swale Way	0.98	90.60	14.6	55.6	F	499	749
	5 - Grovehurst Road	1.01	101.37	17.8	60.1	F	526	789

### Main Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	504	126	330	936	0.538	499	0	0.0	1.1	8.161	A
	2 - Grovehurst Road	300	75	696	690	0.434	297	133	0.0	0.8	9.080	A
	3 - A249 onslip (NB)			746				247				
	4 - B2005 - link	331	83	0	1554	0.213	330	746	0.0	0.3	2.937	A
2 - South	1 - A249 onslip (SB)			431				471				
	2 - B2005 - link	746	186	100	1842	0.405	743	331	0.0	0.7	3.267	A
	3 - A249 offslip (SB)	390	97	843	845	0.462	387	0	0.0	0.8	7.800	A
	4 - Swale Way	410	102	385	694	0.590	404	844	0.0	1.4	12.182	B
	5 - Grovehurst Road	431	108	475	775	0.557	426	314	0.0	1.2	10.202	B

#### 07:30 - 07:45



Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	601	150	396	889	0.677	598	0	1.1	2.0	12.230	B
	2 - Grovehurst Road	358	89	834	602	0.594	355	160	0.8	1.4	14.410	B
	3 - A249 onslip (NB)			893				296				
	4 - B2005 - link	396	99	0	1554	0.255	396	893	0.3	0.3	3.106	A
2 - South	1 - A249 onslip (SB)			515				564				
	2 - B2005 - link	893	223	119	1831	0.488	892	396	0.7	0.9	3.833	A
	3 - A249 offslip (SB)	466	116	1012	713	0.653	462	0	0.8	1.8	14.096	B
	4 - Swale Way	489	122	462	655	0.747	484	1012	1.4	2.7	20.417	C
	5 - Grovehurst Road	515	129	569	709	0.727	510	377	1.2	2.5	17.694	C

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	737	184	462	841	0.875	722	0	2.0	5.7	27.311	D
	2 - Grovehurst Road	438	110	996	499	0.878	423	188	1.4	5.2	41.282	E
	3 - A249 onslip (NB)			1073				346				
	4 - B2005 - link	462	116	0	1554	0.297	462	1073	0.3	0.4	3.295	A
2 - South	1 - A249 onslip (SB)			601				664				
	2 - B2005 - link	1074	268	139	1819	0.590	1072	462	0.9	1.4	4.805	A
	3 - A249 offslip (SB)	570	143	1211	558	1.022	524	0	1.8	13.3	69.759	F
	4 - Swale Way	599	150	543	613	0.978	568	1192	2.7	10.5	57.631	F
	5 - Grovehurst Road	631	158	671	637	0.990	594	441	2.5	11.6	58.638	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	737	184	472	834	0.883	733	0	5.7	6.5	33.775	D
	2 - Grovehurst Road	438	110	1014	488	0.899	433	192	5.2	6.5	57.680	F
	3 - A249 onslip (NB)			1093				354				
	4 - B2005 - link	473	118	0	1554	0.304	472	1093	0.4	0.4	3.327	A
2 - South	1 - A249 onslip (SB)			614				679				
	2 - B2005 - link	1093	273	142	1817	0.602	1093	473	1.4	1.5	4.966	A
	3 - A249 offslip (SB)	570	143	1235	540	1.057	530	0	13.3	23.4	138.977	F
	4 - Swale Way	599	150	552	608	0.985	583	1212	10.5	14.6	90.596	F
	5 - Grovehurst Road	631	158	687	626	1.008	606	448	11.6	17.8	101.371	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	601	150	441	856	0.702	617	0	6.5	2.5	15.965	C
	2 - Grovehurst Road	358	89	884	572	0.626	377	175	6.5	1.8	20.107	C
	3 - A249 onslip (NB)			932				329				
	4 - B2005 - link	441	110	0	1554	0.284	441	932	0.4	0.4	3.235	A
2 - South	1 - A249 onslip (SB)			575				617				
	2 - B2005 - link	931	233	134	1822	0.511	933	441	1.5	1.1	4.057	A
	3 - A249 offslip (SB)	466	116	1067	671	0.694	550	0	23.4	2.5	46.022	E
	4 - Swale Way	489	122	508	631	0.775	532	1109	14.6	3.9	44.947	E
	5 - Grovehurst Road	515	129	620	672	0.767	571	419	17.8	3.7	47.063	E

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	504	126	343	926	0.544	509	0	2.5	1.2	8.722	A
	2 - Grovehurst Road	300	75	714	679	0.441	303	138	1.8	0.8	9.685	A
	3 - A249 onslip (NB)			761				256				
	4 - B2005 - link	342	86	0	1554	0.220	343	761	0.4	0.3	2.972	A
2 - South	1 - A249 onslip (SB)			446				487				
	2 - B2005 - link	761	190	103	1840	0.414	763	343	1.1	0.7	3.344	A
	3 - A249 offslip (SB)	390	97	866	827	0.471	396	0	2.5	0.9	8.474	A
	4 - Swale Way	410	102	395	689	0.594	419	867	3.9	1.5	13.777	B
	5 - Grovehurst Road	431	108	491	763	0.565	441	323	3.7	1.3	11.494	B

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.14	0.55	1.03	1.19	1.19			N/A	N/A
	2 - Grovehurst Road	0.75	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.68	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.84	0.14	0.92	1.15	1.15			N/A	N/A
	4 - Swale Way	1.39	0.56	1.29	1.80	1.94			N/A	N/A
	5 - Grovehurst Road	1.22	0.51	1.16	1.66	1.87			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.01	0.06	0.93	5.02	7.46			N/A	N/A
	2 - Grovehurst Road	1.41	0.06	0.80	3.23	4.68			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.95	0.07	0.85	1.63	1.98			N/A	N/A
	3 - A249 offslip (SB)	1.80	0.05	0.47	4.78	7.69			N/A	N/A
	4 - Swale Way	2.72	0.08	1.32	6.82	9.83			N/A	N/A
	5 - Grovehurst Road	2.49	0.06	1.05	6.46	9.62			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	5.65	0.05	0.46	16.04	29.04			N/A	N/A
	2 - Grovehurst Road	5.18	0.06	1.03	14.81	23.94			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.42	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.42	0.03	0.26	1.42	1.42			N/A	N/A
	3 - A249 offslip (SB)	13.27	0.85	9.04	29.34	37.93			N/A	N/A
	4 - Swale Way	10.54	0.22	5.42	26.35	36.20			N/A	N/A
	5 - Grovehurst Road	11.63	0.31	6.58	28.19	38.04			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	6.47	0.04	0.37	14.81	35.52			N/A	N/A
	2 - Grovehurst Road	6.53	0.05	0.48	18.63	33.69			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.03	0.31	1.36	1.78			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.49	0.03	0.26	1.49	1.49			N/A	N/A
	3 - A249 offslip (SB)	23.45	1.82	17.53	49.58	62.70			N/A	N/A
	4 - Swale Way	14.62	0.17	6.14	39.00	55.56			N/A	N/A
	5 - Grovehurst Road	17.80	0.36	9.87	44.18	60.08			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.48	0.05	0.47	6.83	11.33			N/A	N/A
	2 - Grovehurst Road	1.76	0.04	0.42	4.72	8.06			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
	1 - A249 onslip (SB)									
	2 - B2005 - link	1.06	0.52	1.05	1.08	1.55			N/A	N/A

2 - South	3 - A249 offslip (SB)	2.48	0.04	0.39	6.59	12.70			N/A	N/A
	4 - Swale Way	3.92	0.05	0.49	11.12	18.86			N/A	N/A
	5 - Grovehurst Road	3.73	0.05	0.49	10.58	17.85			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.22	0.03	0.32	2.37	6.22			N/A	N/A
	2 - Grovehurst Road	0.80	0.03	0.30	1.48	3.80			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.71	0.09	0.82	1.39	1.46			N/A	N/A
	3 - A249 offslip (SB)	0.91	0.03	0.27	0.91	2.18			N/A	N/A
	4 - Swale Way	1.52	0.03	0.30	1.77	7.10			N/A	N/A
	5 - Grovehurst Road	1.34	0.03	0.29	1.45	5.64			N/A	N/A

# 2017, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	91.44	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	672.02	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	749	100.000
	2 - Grovehurst Road		ONE HOUR	✓	222	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	431	100.000
	4 - Swale Way		ONE HOUR	✓	989	100.000
	5 - Grovehurst Road		ONE HOUR	✓	528	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	569
		2 - Grovehurst Road	0	0	27	195
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	234	470	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	396	322
	3 - A249 offslip (SB)	1	27	0	187	216
	4 - Swale Way	509	351	0	0	129
	5 - Grovehurst Road	110	318	0	100	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	16
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	22	1
	3 - A249 offslip (SB)	0	11	0	7	4
	4 - Swale Way	14	2	0	0	2
	5 - Grovehurst Road	0	2	0	3	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.09	176.66	43.4	91.6	F	687	1031
	2 - Grovehurst Road	0.46	12.71	0.8	3.7	B	204	306
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.38	3.65	0.6	2.0	A	554	832
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.44	3.54	0.8	1.7	A	701	1051
	3 - A249 offslip (SB)	0.61	11.60	1.5	4.0	B	395	593
	4 - Swale Way	1.74	1810.92	362.8	184.9	F	908	1361
	5 - Grovehurst Road	0.83	28.52	4.4	22.2	D	485	727

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	564	141	500	831	0.679	556	0	0.0	2.0	12.739	B
	2 - Grovehurst Road	167	42	756	671	0.249	166	300	0.0	0.3	7.104	A

	3 - A249 onslip (NB)			568				354				
	4 - B2005 - link	502	125	0	1591	0.315	500	568	0.0	0.5	3.295	A
2 - South	1 - A249 onslip (SB)			574				467				
	2 - B2005 - link	569	142	74	1822	0.312	567	500	0.0	0.5	2.865	A
	3 - A249 offslip (SB)	324	81	641	984	0.330	323	0	0.0	0.5	5.431	A
	4 - Swale Way	745	186	454	733	1.015	686	510	0.0	14.6	53.461	F
	5 - Grovehurst Road	398	99	649	683	0.582	392	491	0.0	1.3	12.160	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	673	168	551	795	0.847	663	0	2.0	4.7	25.368	D
	2 - Grovehurst Road	200	50	871	595	0.335	199	343	0.3	0.5	9.067	A
	3 - A249 onslip (NB)			678				392				
	4 - B2005 - link	552	138	0	1591	0.347	551	678	0.5	0.5	3.464	A
2 - South	1 - A249 onslip (SB)			639				487				
	2 - B2005 - link	679	170	89	1813	0.374	678	550	0.5	0.6	3.170	A
	3 - A249 offslip (SB)	387	97	768	884	0.438	386	0	0.5	0.8	7.211	A
	4 - Swale Way	889	222	544	683	1.302	681	610	14.6	66.7	233.318	F
	5 - Grovehurst Road	475	119	654	680	0.698	471	570	1.3	2.2	16.976	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	825	206	600	760	1.085	741	0	4.7	25.5	89.210	F
	2 - Grovehurst Road	244	61	964	535	0.457	243	378	0.5	0.8	12.288	B
	3 - A249 onslip (NB)			777				430				
	4 - B2005 - link	601	150	0	1591	0.378	600	777	0.5	0.6	3.635	A
2 - South	1 - A249 onslip (SB)			707				487				
	2 - B2005 - link	776	194	109	1802	0.431	775	598	0.6	0.8	3.504	A
	3 - A249 offslip (SB)	475	119	884	794	0.598	472	0	0.8	1.4	11.098	B
	4 - Swale Way	1089	272	638	629	1.732	629	717	66.7	181.8	722.148	F
	5 - Grovehurst Road	581	145	620	703	0.827	573	647	2.2	4.1	26.309	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	825	206	604	758	1.088	753	0	25.5	43.4	176.655	F
	2 - Grovehurst Road	244	61	975	527	0.463	244	382	0.8	0.8	12.706	B
	3 - A249 onslip (NB)			787				433				
	4 - B2005 - link	604	151	0	1591	0.380	604	787	0.6	0.6	3.647	A
2 - South	1 - A249 onslip (SB)			711				487				
	2 - B2005 - link	786	197	110	1801	0.436	786	601	0.8	0.8	3.544	A
	3 - A249 offslip (SB)	475	119	896	784	0.605	474	0	1.4	1.5	11.604	B
	4 - Swale Way	1089	272	645	625	1.742	625	725	181.8	297.7	1388.097	F
	5 - Grovehurst Road	581	145	618	704	0.826	580	652	4.1	4.4	28.517	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	673	168	551	795	0.847	777	0	43.4	17.5	146.187	F
	2 - Grovehurst Road	200	50	958	536	0.372	201	370	0.8	0.6	10.755	B
	3 - A249 onslip (NB)			767				392				
	4 - B2005 - link	551	138	0	1591	0.346	551	767	0.6	0.5	3.462	A
2 - South	1 - A249 onslip (SB)			640				482				
	2 - B2005 - link	770	193	91	1812	0.425	770	548	0.8	0.7	3.458	A
	3 - A249 offslip (SB)	387	97	862	810	0.478	390	0	1.5	0.9	8.613	A
	4 - Swale Way	889	222	590	657	1.353	657	662	297.7	355.7	1722.510	F
	5 - Grovehurst Road	475	119	639	690	0.688	483	607	4.4	2.3	18.004	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	564	141	518	818	0.689	624	0	17.5	2.4	24.011	C

1 - North	2 - Grovehurst Road	167	42	820	628	0.266	168	322	0.6	0.4	7.836	A
	3 - A249 onslip (NB)			622				366				
	4 - B2005 - link	518	129	0	1591	0.326	518	622	0.5	0.5	3.358	A
2 - South	1 - A249 onslip (SB)			592				488				
	2 - B2005 - link	625	156	76	1821	0.343	625	516	0.7	0.5	3.012	A
	3 - A249 offslip (SB)	324	81	701	936	0.347	326	0	0.9	0.5	5.916	A
	4 - Swale Way	745	186	484	717	1.039	716	543	355.7	362.8	1810.923	F
	5 - Grovehurst Road	398	99	679	664	0.599	401	522	2.3	1.5	13.846	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.02	0.27	1.23	3.54	4.41			N/A	N/A
	2 - Grovehurst Road	0.33	0.00	0.00	0.33	0.33			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.46	0.00	0.00	0.46	0.46			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
	3 - A249 offslip (SB)	0.49	0.00	0.00	0.49	0.49			N/A	N/A
	4 - Swale Way	14.57	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.35	0.55	1.00	1.40	1.45			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.71	0.11	1.83	12.00	17.01			N/A	N/A
	2 - Grovehurst Road	0.50	0.00	0.00	0.50	0.50			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.60	0.12	0.87	1.37	1.44			N/A	N/A
	3 - A249 offslip (SB)	0.77	0.09	0.84	1.02	1.02			N/A	N/A
	4 - Swale Way	66.71	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.19	0.09	1.38	4.89	6.73			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	25.53	4.99	21.53	47.32	57.09			N/A	N/A
	2 - Grovehurst Road	0.82	0.03	0.26	0.82	0.82			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.03	0.25	0.60	0.60			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.75	0.03	0.25	0.75	0.75			N/A	N/A
	3 - A249 offslip (SB)	1.44	0.03	0.27	1.44	2.10			N/A	N/A
	4 - Swale Way	181.76	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.15	0.04	0.39	10.86	22.23			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	43.45	11.01	38.08	77.14	91.56			N/A	N/A
	2 - Grovehurst Road	0.85	0.03	0.29	1.24	3.67			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.03	0.28	0.61	2.00			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.77	0.03	0.27	0.77	1.69			N/A	N/A
	3 - A249 offslip (SB)	1.50	0.03	0.28	1.50	3.98			N/A	N/A
	4 - Swale Way	297.70	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.38	0.03	0.32	5.99	21.57			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	17.50	1.14	12.85	37.15	47.16			N/A	N/A
	2 - Grovehurst Road	0.60	0.10	0.82	1.36	1.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.74	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.93	0.13	0.95	1.25	1.66			N/A	N/A
	4 - Swale Way	355.73	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.32	0.04	0.42	6.36	11.31			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.35	0.03	0.30	2.35	10.64			N/A	N/A
	2 - Grovehurst Road	0.37	0.03	0.30	0.86	1.18			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.49	0.00	0.00	0.49	0.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.54	0.04	0.43	1.35	1.48			N/A	N/A
	4 - Swale Way	362.76	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.55	0.04	0.37	3.93	7.62			N/A	N/A



# 2024, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	230.50	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	363.86	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	861	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	689	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	819
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	147	327	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	141	0	0	908	183
	3 - A249 offslip (SB)	1	18	0	377	174
	4 - Swale Way	386	226	0	0	77
	5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	7	0	18
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	7	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	16	6
	3 - A249 offslip (SB)	0	6	0	9	4
	4 - Swale Way	38	10	0	0	9
	5 - Grovehurst Road	1	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.15	298.81	72.4	124.5	F	790	1185
	2 - Grovehurst Road	1.16	320.92	39.1	75.6	F	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.29	3.31	0.4	1.7	A	420	629
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.18	2.0	4.8	A	1113	1669
	3 - A249 offslip (SB)	1.49	1124.24	133.6	200.0	F	523	785
	4 - Swale Way	1.20	438.92	76.2	133.4	F	632	948
	5 - Grovehurst Road	1.15	297.54	51.7	95.0	F	561	841

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	648	162	350	887	0.731	638	0	0.0	2.6	13.956	B
	2 - Grovehurst Road	331	83	848	575	0.576	326	140	0.0	1.3	14.189	B

	3 - A249 onslip (NB)			914				260				
	4 - B2005 - link	351	88	0	1530	0.230	350	914	0.0	0.3	3.049	A
2 - South	1 - A249 onslip (SB)			479				541				
	2 - B2005 - link	917	229	127	1780	0.515	912	352	0.0	1.1	4.130	A
	3 - A249 offslip (SB)	429	107	1040	656	0.654	422	0	0.0	1.8	14.961	B
	4 - Swale Way	519	130	383	665	0.781	506	1079	0.0	3.2	21.269	C
	5 - Grovehurst Road	460	115	568	688	0.669	452	321	0.0	1.9	14.830	B

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	774	194	411	844	0.917	754	0	2.6	7.6	34.112	D
	2 - Grovehurst Road	396	99	1001	475	0.834	385	164	1.3	4.0	36.398	E
	3 - A249 onslip (NB)			1080				305				
	4 - B2005 - link	411	103	0	1530	0.269	411	1080	0.3	0.4	3.217	A
2 - South	1 - A249 onslip (SB)			562				635				
	2 - B2005 - link	1083	271	150	1767	0.613	1081	412	1.1	1.6	5.233	A
	3 - A249 offslip (SB)	512	128	1231	507	1.010	473	0	1.8	11.7	70.796	F
	4 - Swale Way	619	155	444	634	0.977	589	1259	3.2	10.7	57.599	F
	5 - Grovehurst Road	549	137	663	618	0.888	534	371	1.9	5.8	37.145	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	948	237	438	825	1.149	816	0	7.6	40.7	120.890	F
	2 - Grovehurst Road	484	121	1078	423	1.144	412	176	4.0	22.1	136.026	F
	3 - A249 onslip (NB)			1165				326				
	4 - B2005 - link	439	110	0	1530	0.287	438	1165	0.4	0.4	3.298	A
2 - South	1 - A249 onslip (SB)			602				680				
	2 - B2005 - link	1168	292	163	1759	0.664	1166	439	1.6	1.9	6.054	A
	3 - A249 offslip (SB)	628	157	1329	431	1.456	430	0	11.7	61.2	325.375	F
	4 - Swale Way	759	190	452	630	1.203	626	1306	10.7	43.9	173.251	F
	5 - Grovehurst Road	673	168	704	589	1.143	578	374	5.8	29.4	127.531	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	948	237	441	823	1.152	821	0	40.7	72.4	258.356	F
	2 - Grovehurst Road	484	121	1085	419	1.157	416	177	22.1	39.1	281.933	F
	3 - A249 onslip (NB)			1174				328				
	4 - B2005 - link	441	110	0	1530	0.289	441	1174	0.4	0.4	3.307	A
2 - South	1 - A249 onslip (SB)			607				685				
	2 - B2005 - link	1177	294	164	1759	0.669	1176	442	1.9	2.0	6.182	A
	3 - A249 offslip (SB)	628	157	1341	422	1.487	422	0	61.2	112.7	749.218	F
	4 - Swale Way	759	190	452	630	1.203	630	1310	43.9	76.2	355.285	F
	5 - Grovehurst Road	673	168	708	585	1.149	583	374	29.4	51.7	263.771	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	774	194	438	825	0.938	814	0	72.4	62.4	298.814	F
	2 - Grovehurst Road	396	99	1076	425	0.931	414	175	39.1	34.5	320.919	F
	3 - A249 onslip (NB)			1165				325				
	4 - B2005 - link	438	109	0	1530	0.286	438	1165	0.4	0.4	3.296	A
2 - South	1 - A249 onslip (SB)			602				678				
	2 - B2005 - link	1168	292	163	1759	0.664	1168	439	2.0	2.0	6.093	A
	3 - A249 offslip (SB)	512	128	1331	429	1.194	429	0	112.7	133.5	1043.421	F
	4 - Swale Way	619	155	452	630	0.983	621	1308	76.2	75.8	438.925	F
	5 - Grovehurst Road	549	137	699	592	0.928	581	374	51.7	43.9	297.536	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	648	162	437	826	0.785	813	0	62.4	21.3	190.054	F

1 - North	2 - Grovehurst Road	331	83	1075	426	0.778	414	175	34.5	13.8	217.566	F
	3 - A249 onslip (NB)			1163				325				
	4 - B2005 - link	437	109	0	1530	0.286	437	1163	0.4	0.4	3.294	A
2 - South	1 - A249 onslip (SB)			601				678				
	2 - B2005 - link	1166	292	163	1759	0.663	1166	438	2.0	2.0	6.069	A
	3 - A249 offslip (SB)	429	107	1329	431	0.995	429	0	133.5	133.6	1124.245	F
	4 - Swale Way	519	130	452	631	0.823	622	1306	75.8	49.9	365.912	F
	5 - Grovehurst Road	460	115	701	591	0.778	578	374	43.9	14.4	188.251	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.56	0.08	1.39	6.17	8.72			N/A	N/A
	2 - Grovehurst Road	1.31	0.05	0.47	3.26	5.06			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.05	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.80	0.03	0.25	1.80	1.80			N/A	N/A
	4 - Swale Way	3.19	0.05	0.48	8.95	15.16			N/A	N/A
	5 - Grovehurst Road	1.92	0.07	1.05	4.61	6.61			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	7.56	0.18	3.70	18.85	26.00			N/A	N/A
	2 - Grovehurst Road	4.02	0.08	1.00	10.77	15.94			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.37	0.00	0.00	0.37	0.37			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.56	0.07	1.00	3.48	4.84			N/A	N/A
	3 - A249 offslip (SB)	11.71	0.03	0.29	11.71	30.43			N/A	N/A
	4 - Swale Way	10.72	0.27	5.88	26.23	35.61			N/A	N/A
	5 - Grovehurst Road	5.78	0.13	2.53	14.61	20.46			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	40.67	14.36	37.17	66.11	76.36			N/A	N/A
	2 - Grovehurst Road	22.06	5.24	19.05	39.06	46.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.94	0.03	0.27	1.94	1.94			N/A	N/A
	3 - A249 offslip (SB)	61.23	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	43.93	16.53	40.47	70.12	80.52			N/A	N/A
	5 - Grovehurst Road	29.38	8.53	26.13	50.05	58.74			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	72.41	32.12	68.20	110.15	124.52			N/A	N/A
	2 - Grovehurst Road	39.11	12.75	35.37	64.98	75.56			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.30	1.27	1.71			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.03	0.26	1.99	1.99			N/A	N/A
	3 - A249 offslip (SB)	112.67	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	76.20	37.35	72.55	111.74	124.92			N/A	N/A
	5 - Grovehurst Road	51.72	19.46	47.71	82.76	95.05			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	62.40	22.68	57.39	101.18	116.63			N/A	N/A
	2 - Grovehurst Road	34.48	7.79	29.72	62.55	74.83			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.20	1.13	3.63	4.61			N/A	N/A
	3 - A249 offslip (SB)	133.50	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	75.85	32.04	71.07	117.42	133.42			N/A	N/A
	5 - Grovehurst Road	43.88	12.34	38.99	76.00	89.52			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	21.30	2.78	17.01	41.96	51.74			N/A	N/A
	2 - Grovehurst Road	13.85	0.88	9.44	30.72	39.75			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.98	0.52	1.31	3.04	3.78			N/A	N/A
	3 - A249 offslip (SB)	133.58	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	49.93	11.34	43.18	91.08	109.02			N/A	N/A
	5 - Grovehurst Road	14.44	0.97	9.96	31.84	41.11			N/A	N/A

# 2024, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	239.33	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1633.71	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	825	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	443	100.000
	4 - Swale Way		ONE HOUR	✓	1276	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	645
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	262	522	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	477	322
	3 - A249 offslip (SB)	1	27	0	199	216
	4 - Swale Way	685	432	0	0	159
	5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	21
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	4	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	28	1
	3 - A249 offslip (SB)	0	11	0	8	4
	4 - Swale Way	18	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.24	441.17	97.1	150.6	F	757	1136
	2 - Grovehurst Road	0.49	13.73	0.9	3.5	B	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.64	0.6	2.2	A	541	811
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.46	3.82	0.8	1.5	A	748	1122
	3 - A249 offslip (SB)	0.65	13.74	1.8	5.6	B	407	610
	4 - Swale Way	2.24	3878.15	764.7	180.1	F	1171	1756
	5 - Grovehurst Road	0.85	33.36	5.1	27.5	D	490	735

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	621	155	494	803	0.774	609	0	0.0	3.1	17.560	C
	2 - Grovehurst Road	171	43	804	622	0.275	169	298	0.0	0.4	7.930	A

	3 - A249 onslip (NB)			625				349				
	4 - B2005 - link	495	124	0	1580	0.314	494	625	0.0	0.5	3.307	A
2 - South	1 - A249 onslip (SB)			573				492				
	2 - B2005 - link	624	156	79	1751	0.357	622	495	0.0	0.6	3.185	A
	3 - A249 offslip (SB)	334	83	701	913	0.365	331	0	0.0	0.6	6.167	A
	4 - Swale Way	961	240	452	716	1.342	705	580	0.0	64.0	175.209	F
	5 - Grovehurst Road	402	101	669	657	0.612	396	488	0.0	1.5	13.495	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	742	185	535	774	0.958	714	0	3.1	10.1	45.822	E
	2 - Grovehurst Road	204	51	914	547	0.373	203	335	0.4	0.6	10.456	B
	3 - A249 onslip (NB)			737				380				
	4 - B2005 - link	535	134	0	1580	0.339	535	737	0.5	0.5	3.444	A
2 - South	1 - A249 onslip (SB)			629				495				
	2 - B2005 - link	736	184	95	1742	0.422	735	534	0.6	0.7	3.575	A
	3 - A249 offslip (SB)	398	100	830	808	0.493	397	0	0.6	1.0	8.710	A
	4 - Swale Way	1147	287	537	669	1.715	669	690	64.0	183.6	695.260	F
	5 - Grovehurst Road	480	120	647	672	0.714	477	558	1.5	2.3	18.086	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	908	227	588	739	1.230	734	0	10.1	53.6	170.395	F
	2 - Grovehurst Road	250	62	965	514	0.486	249	357	0.6	0.9	13.484	B
	3 - A249 onslip (NB)			793				421				
	4 - B2005 - link	588	147	0	1580	0.372	588	793	0.5	0.6	3.626	A
2 - South	1 - A249 onslip (SB)			702				497				
	2 - B2005 - link	787	197	115	1730	0.455	787	587	0.7	0.8	3.811	A
	3 - A249 offslip (SB)	488	122	901	752	0.649	484	0	1.0	1.8	13.309	B
	4 - Swale Way	1405	351	607	629	2.232	629	779	183.6	377.4	1610.749	F
	5 - Grovehurst Road	588	147	621	690	0.852	578	616	2.3	4.8	29.738	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	908	227	592	735	1.235	735	0	53.6	97.1	374.287	F
	2 - Grovehurst Road	250	62	969	512	0.488	250	358	0.9	0.9	13.729	B
	3 - A249 onslip (NB)			794				424				
	4 - B2005 - link	592	148	0	1580	0.375	592	794	0.6	0.6	3.643	A
2 - South	1 - A249 onslip (SB)			708				498				
	2 - B2005 - link	788	197	116	1730	0.456	788	592	0.8	0.8	3.823	A
	3 - A249 offslip (SB)	488	122	905	749	0.651	488	0	1.8	1.8	13.744	B
	4 - Swale Way	1405	351	610	628	2.237	628	783	377.4	571.6	2619.250	F
	5 - Grovehurst Road	588	147	620	691	0.851	586	618	4.8	5.1	33.356	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	742	185	540	771	0.962	763	0	97.1	91.7	441.169	F
	2 - Grovehurst Road	204	51	956	517	0.394	205	347	0.9	0.7	11.575	B
	3 - A249 onslip (NB)			777				384				
	4 - B2005 - link	540	135	0	1580	0.342	540	777	0.6	0.5	3.463	A
2 - South	1 - A249 onslip (SB)			636				494				
	2 - B2005 - link	777	194	97	1740	0.447	777	539	0.8	0.8	3.738	A
	3 - A249 offslip (SB)	398	100	875	772	0.516	401	0	1.8	1.1	9.788	A
	4 - Swale Way	1147	287	557	657	1.745	657	718	571.6	694.0	3393.157	F
	5 - Grovehurst Road	480	120	640	677	0.709	490	575	5.1	2.6	20.163	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	621	155	493	803	0.773	795	0	91.7	48.3	319.637	F



1 - North	2 - Grovehurst Road	171	43	949	519	0.329	172	338	0.7	0.5	10.382	B
	3 - A249 onslip (NB)			772				349				
	4 - B2005 - link	493	123	0	1580	0.312	493	772	0.5	0.5	3.313	A
2 - South	1 - A249 onslip (SB)			572				487				
	2 - B2005 - link	777	194	81	1750	0.444	777	492	0.8	0.8	3.701	A
	3 - A249 offslip (SB)	334	83	858	784	0.425	335	0	1.1	0.8	8.036	A
	4 - Swale Way	961	240	521	678	1.417	678	672	694.0	764.7	3878.150	F
	5 - Grovehurst Road	402	101	654	668	0.602	406	545	2.6	1.6	13.957	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.13	0.06	1.01	8.53	13.10			N/A	N/A
	2 - Grovehurst Road	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.55	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.57	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	63.98	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.52	1.05	1.50	1.90	1.95			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.06	0.27	5.54	24.49	33.18			N/A	N/A
	2 - Grovehurst Road	0.59	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.73	0.20	0.93	1.39	1.44			N/A	N/A
	3 - A249 offslip (SB)	0.95	0.09	0.91	1.52	1.86			N/A	N/A
	4 - Swale Way	183.59	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.35	0.09	1.42	5.37	7.41			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	53.62	24.35	50.53	80.58	90.81			N/A	N/A
	2 - Grovehurst Road	0.92	0.03	0.26	0.92	0.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.25	0.59	0.59			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.83	0.03	0.25	0.83	0.83			N/A	N/A
	3 - A249 offslip (SB)	1.78	0.03	0.28	1.78	5.64			N/A	N/A
	4 - Swale Way	377.44	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.77	0.04	0.44	13.24	24.65			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	97.05	54.43	93.72	134.93	148.46			N/A	N/A
	2 - Grovehurst Road	0.94	0.03	0.28	0.94	3.51			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.03	0.28	0.63	2.18			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.83	0.03	0.26	0.83	0.94			N/A	N/A
	3 - A249 offslip (SB)	1.82	0.03	0.28	1.82	4.50			N/A	N/A
	4 - Swale Way	571.64	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.14	0.03	0.34	9.82	27.52			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	91.68	44.94	87.37	134.67	150.60			N/A	N/A
	2 - Grovehurst Road	0.66	0.08	0.79	1.37	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.09	0.08	0.91	1.93	2.67			N/A	N/A
	4 - Swale Way	694.04	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.59	0.04	0.43	7.12	12.67			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	48.31	15.65	43.74	80.71	93.96			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.44	1.27	1.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.46	0.00	0.00	0.46	0.46			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.80	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.75	0.05	0.48	1.45	1.96			N/A	N/A
	4 - Swale Way	764.68	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.57	0.03	0.35	3.81	8.01			N/A	N/A

# 2024 + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	307.66	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	509.94	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	904	100.000
	2 - Grovehurst Road		ONE HOUR	✓	446	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	593	100.000
	4 - Swale Way		ONE HOUR	✓	690	100.000
	5 - Grovehurst Road		ONE HOUR	✓	736	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	45	0	859
		2 - Grovehurst Road	0	0	25	421
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	151	366	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	144	0	0	908	225
	3 - A249 offslip (SB)	1	18	0	377	197
	4 - Swale Way	387	226	0	0	77
	5 - Grovehurst Road	287	277	0	172	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	13	0	17
	2 - Grovehurst Road	0	0	8	4
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	6	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	16	6
	3 - A249 offslip (SB)	0	6	0	9	4
	4 - Swale Way	39	10	0	0	9
	5 - Grovehurst Road	1	1	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.20	406.38	94.3	156.3	F	830	1244
	2 - Grovehurst Road	1.19	403.85	46.7	87.3	F	409	614
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.28	3.27	0.4	1.7	A	426	639
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.66	6.06	2.0	5.0	A	1124	1686
	3 - A249 offslip (SB)	1.49	1194.90	146.9	186.5	F	544	816
	4 - Swale Way	1.26	585.20	98.7	162.4	F	633	950
	5 - Grovehurst Road	1.34	769.71	135.3	200.0	F	675	1013

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	681	170	379	873	0.780	668	0	0.0	3.2	16.615	C
	2 - Grovehurst Road	336	84	903	540	0.622	330	144	0.0	1.6	16.644	C

	3 - A249 onslip (NB)			945				287				
	4 - B2005 - link	380	95	0	1539	0.247	379	945	0.0	0.3	3.101	A
2 - South	1 - A249 onslip (SB)			508				600				
	2 - B2005 - link	946	236	126	1781	0.531	941	382	0.0	1.1	4.267	A
	3 - A249 offslip (SB)	446	112	1068	635	0.703	438	0	0.0	2.2	17.543	C
	4 - Swale Way	519	130	431	636	0.816	504	1074	0.0	3.8	24.966	C
	5 - Grovehurst Road	554	139	568	689	0.805	540	368	0.0	3.6	22.384	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	813	203	429	838	0.970	780	0	3.2	11.4	46.347	E
	2 - Grovehurst Road	401	100	1045	448	0.895	385	164	1.6	5.6	48.333	E
	3 - A249 onslip (NB)			1105				325				
	4 - B2005 - link	429	107	0	1539	0.279	429	1105	0.3	0.4	3.242	A
2 - South	1 - A249 onslip (SB)			571				684				
	2 - B2005 - link	1105	276	141	1772	0.624	1103	430	1.1	1.6	5.364	A
	3 - A249 offslip (SB)	533	133	1244	497	1.072	475	0	2.2	16.7	92.521	F
	4 - Swale Way	620	155	492	606	1.023	577	1227	3.8	14.6	74.659	F
	5 - Grovehurst Road	662	165	652	626	1.056	603	417	3.6	18.4	83.300	F

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	995	249	437	833	1.196	827	0	11.4	53.3	154.179	F
	2 - Grovehurst Road	491	123	1095	415	1.184	407	169	5.6	26.5	164.030	F
	3 - A249 onslip (NB)			1171				332				
	4 - B2005 - link	437	109	0	1539	0.284	437	1171	0.4	0.4	3.265	A
2 - South	1 - A249 onslip (SB)			579				705				
	2 - B2005 - link	1171	293	141	1772	0.661	1170	438	1.6	1.9	5.969	A
	3 - A249 offslip (SB)	653	163	1312	444	1.470	443	0	16.7	69.2	367.089	F
	4 - Swale Way	760	190	500	603	1.261	600	1255	14.6	54.5	222.604	F
	5 - Grovehurst Road	810	203	679	606	1.336	605	420	18.4	69.7	276.051	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	995	249	437	832	1.196	831	0	53.3	94.3	329.149	F
	2 - Grovehurst Road	491	123	1099	412	1.192	410	169	26.5	46.7	337.481	F
	3 - A249 onslip (NB)			1178				332				
	4 - B2005 - link	437	109	0	1539	0.284	437	1178	0.4	0.4	3.266	A
2 - South	1 - A249 onslip (SB)			579				707				
	2 - B2005 - link	1178	295	141	1772	0.665	1178	438	1.9	2.0	6.055	A
	3 - A249 offslip (SB)	653	163	1319	438	1.490	438	0	69.2	122.9	800.564	F
	4 - Swale Way	760	190	500	602	1.261	602	1257	54.5	94.0	455.086	F
	5 - Grovehurst Road	810	203	682	605	1.340	604	420	69.7	121.2	578.188	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	813	203	437	832	0.976	824	0	94.3	91.6	406.377	F
	2 - Grovehurst Road	401	100	1092	417	0.962	417	169	46.7	42.7	403.846	F
	3 - A249 onslip (NB)			1176				333				
	4 - B2005 - link	437	109	0	1539	0.284	437	1176	0.4	0.4	3.265	A
2 - South	1 - A249 onslip (SB)			579				706				
	2 - B2005 - link	1176	294	141	1772	0.664	1176	438	2.0	2.0	6.039	A
	3 - A249 offslip (SB)	533	133	1317	440	1.213	439	0	122.9	146.3	1111.108	F
	4 - Swale Way	620	155	500	602	1.030	601	1257	94.0	98.7	585.201	F
	5 - Grovehurst Road	662	165	681	605	1.093	605	420	121.2	135.3	769.709	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	681	170	435	833	0.817	824	0	91.6	55.6	323.491	F

1 - North	2 - Grovehurst Road	336	84	1092	417	0.805	408	168	42.7	24.7	301.950	F
	3 - A249 onslip (NB)			1168				331				
	4 - B2005 - link	435	109	0	1539	0.283	435	1168	0.4	0.4	3.261	A
2 - South	1 - A249 onslip (SB)			578				703				
	2 - B2005 - link	1169	292	141	1772	0.660	1169	436	2.0	2.0	5.969	A
	3 - A249 offslip (SB)	446	112	1310	445	1.002	444	0	146.3	146.9	1194.903	F
	4 - Swale Way	519	130	499	603	0.862	597	1255	98.7	79.4	538.593	F
	5 - Grovehurst Road	554	139	676	609	0.910	604	420	135.3	122.7	768.764	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.25	0.05	0.52	9.11	15.03			N/A	N/A
	2 - Grovehurst Road	1.56	0.04	0.38	4.04	7.66			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.12	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	2.22	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	3.82	0.03	0.34	8.15	20.65			N/A	N/A
	5 - Grovehurst Road	3.62	0.03	0.27	3.62	3.62			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	11.38	0.29	6.30	27.82	37.71			N/A	N/A
	2 - Grovehurst Road	5.57	0.09	1.81	14.85	21.62			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.63	0.07	1.05	3.64	5.01			N/A	N/A
	3 - A249 offslip (SB)	16.74	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	14.61	0.22	7.09	37.64	52.40			N/A	N/A
	5 - Grovehurst Road	18.36	0.09	3.58	53.58	84.07			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	53.35	22.24	49.80	82.60	93.92			N/A	N/A
	2 - Grovehurst Road	26.53	7.45	23.46	45.45	53.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.92	0.03	0.27	1.92	1.92			N/A	N/A
	3 - A249 offslip (SB)	69.19	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	54.51	20.37	50.26	87.50	100.58			N/A	N/A
	5 - Grovehurst Road	69.69	19.83	62.19	121.03	142.47			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	94.32	49.45	90.50	134.90	149.68			N/A	N/A
	2 - Grovehurst Road	46.67	18.26	43.21	73.68	84.32			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.30	1.22	1.71			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.96	0.03	0.26	1.96	1.96			N/A	N/A
	3 - A249 offslip (SB)	122.92	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	93.95	49.30	90.15	134.31	149.00			N/A	N/A
	5 - Grovehurst Road	121.15	>199	>199	>199	>199			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	91.60	41.46	86.56	138.57	156.30			N/A	N/A
	2 - Grovehurst Road	42.66	11.89	37.86	74.04	87.27			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.96	0.18	1.07	3.66	4.68			N/A	N/A
	3 - A249 offslip (SB)	146.33	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	98.73	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	135.31	>199	>199	>199	>199			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	55.64	14.68	49.11	98.23	116.31			N/A	N/A
	2 - Grovehurst Road	24.72	1.73	18.24	52.90	67.19			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.95	0.45	1.26	3.08	3.83			N/A	N/A
	3 - A249 offslip (SB)	146.91	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	79.44	28.41	73.01	129.71	149.75			N/A	N/A
	5 - Grovehurst Road	122.71	>199	>199	>199	>199			N/A	N/A

# 2024 + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	385.80	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1830.21	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	896	100.000
	2 - Grovehurst Road		ONE HOUR	✓	235	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	482	100.000
	4 - Swale Way		ONE HOUR	✓	1276	100.000
	5 - Grovehurst Road		ONE HOUR	✓	595	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	183	0	713
		2 - Grovehurst Road	0	0	27	208
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only



	4 - B2005 - link	0	264	541	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	45	0	0	479	393
	3 - A249 offslip (SB)	1	27	0	199	255
	4 - Swale Way	685	432	0	0	159
	5 - Grovehurst Road	150	339	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	2	0	20
	2 - Grovehurst Road	0	0	0	2
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	9	0	0	28	2
	3 - A249 offslip (SB)	0	11	0	8	3
	4 - Swale Way	18	3	0	0	3
	5 - Grovehurst Road	1	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.34	693.91	153.9	200.0	F	822	1233
	2 - Grovehurst Road	0.52	14.86	1.1	3.5	B	216	323
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.38	3.64	0.6	2.2	A	547	821
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.46	3.87	0.9	1.5	A	777	1166
	3 - A249 offslip (SB)	0.71	16.93	2.4	10.9	C	442	663
	4 - Swale Way	2.43	4510.73	835.6	180.1	F	1171	1756
	5 - Grovehurst Road	0.91	48.39	8.2	43.4	E	546	819

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	675	169	497	805	0.838	657	0	0.0	4.4	22.205	C
	2 - Grovehurst Road	177	44	857	585	0.302	175	297	0.0	0.4	8.742	A

	3 - A249 onslip (NB)			678				354				
	4 - B2005 - link	499	125	0	1590	0.313	497	678	0.0	0.5	3.286	A
2 - South	1 - A249 onslip (SB)			573				499				
	2 - B2005 - link	677	169	78	1757	0.386	675	495	0.0	0.6	3.319	A
	3 - A249 offslip (SB)	363	91	753	877	0.414	360	0	0.0	0.7	6.921	A
	4 - Swale Way	961	240	534	669	1.436	660	580	0.0	75.1	218.293	F
	5 - Grovehurst Road	448	112	632	680	0.659	441	562	0.0	1.8	14.619	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	805	201	539	776	1.038	748	0	4.4	18.9	71.797	F
	2 - Grovehurst Road	211	53	957	518	0.408	210	330	0.4	0.7	11.666	B
	3 - A249 onslip (NB)			781				387				
	4 - B2005 - link	540	135	0	1590	0.339	539	781	0.5	0.5	3.425	A
2 - South	1 - A249 onslip (SB)			630				505				
	2 - B2005 - link	780	195	94	1748	0.446	779	536	0.6	0.8	3.711	A
	3 - A249 offslip (SB)	433	108	873	780	0.555	431	0	0.7	1.2	10.249	B
	4 - Swale Way	1147	287	625	618	1.856	618	679	75.1	207.4	861.187	F
	5 - Grovehurst Road	535	134	604	699	0.765	530	639	1.8	3.0	20.751	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	987	247	594	739	1.335	738	0	18.9	81.2	256.676	F
	2 - Grovehurst Road	259	65	986	502	0.516	257	345	0.7	1.0	14.644	B
	3 - A249 onslip (NB)			815				428				
	4 - B2005 - link	594	148	0	1590	0.373	594	815	0.5	0.6	3.611	A
2 - South	1 - A249 onslip (SB)			703				513				
	2 - B2005 - link	808	202	114	1738	0.465	808	589	0.8	0.9	3.870	A
	3 - A249 offslip (SB)	531	133	921	743	0.715	526	0	1.2	2.4	16.292	C
	4 - Swale Way	1405	351	695	579	2.424	579	753	207.4	413.7	1932.573	F
	5 - Grovehurst Road	655	164	577	717	0.914	638	697	3.0	7.2	39.027	E

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	987	247	601	734	1.344	734	0	81.2	144.3	552.302	F
	2 - Grovehurst Road	259	65	988	501	0.517	259	347	1.0	1.1	14.858	B
	3 - A249 onslip (NB)			813				434				
	4 - B2005 - link	601	150	0	1590	0.378	601	813	0.6	0.6	3.637	A
2 - South	1 - A249 onslip (SB)			712				515				
	2 - B2005 - link	806	201	116	1736	0.464	806	596	0.9	0.9	3.868	A
	3 - A249 offslip (SB)	531	133	922	742	0.715	530	0	2.4	2.4	16.930	C
	4 - Swale Way	1405	351	696	579	2.428	579	756	413.7	620.3	3050.892	F
	5 - Grovehurst Road	655	164	577	718	0.913	651	698	7.2	8.2	48.389	E

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	805	201	551	768	1.049	767	0	144.3	153.9	693.909	F
	2 - Grovehurst Road	211	53	981	502	0.421	212	337	1.1	0.7	12.483	B
	3 - A249 onslip (NB)			799				395				
	4 - B2005 - link	551	138	0	1590	0.346	551	799	0.6	0.5	3.464	A
2 - South	1 - A249 onslip (SB)			646				508				
	2 - B2005 - link	797	199	99	1746	0.457	798	547	0.9	0.8	3.797	A
	3 - A249 offslip (SB)	433	108	896	762	0.569	438	0	2.4	1.4	11.243	B
	4 - Swale Way	1147	287	638	611	1.877	611	696	620.3	754.3	3935.112	F
	5 - Grovehurst Road	535	134	600	702	0.762	554	649	8.2	3.5	26.640	D

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	675	169	498	804	0.839	799	0	153.9	122.9	624.589	F

1 - North	2 - Grovehurst Road	177	44	970	506	0.350	178	327	0.7	0.5	10.993	B
	3 - A249 onslip (NB)			793				355				
	4 - B2005 - link	498	125	0	1590	0.313	498	793	0.5	0.5	3.299	A
2 - South	1 - A249 onslip (SB)			575				495				
	2 - B2005 - link	796	199	81	1756	0.453	796	494	0.8	0.8	3.753	A
	3 - A249 offslip (SB)	363	91	877	776	0.468	365	0	1.4	0.9	8.790	A
	4 - Swale Way	961	240	594	635	1.512	635	647	754.3	835.6	4510.728	F
	5 - Grovehurst Road	448	112	616	691	0.649	454	613	3.5	1.9	15.605	C

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.43	0.03	0.35	9.36	24.04			N/A	N/A
	2 - Grovehurst Road	0.43	0.00	0.00	0.43	0.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.62	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.70	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	75.14	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.84	0.71	1.39	1.98	2.41			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	18.90	0.39	10.67	46.73	63.37			N/A	N/A
	2 - Grovehurst Road	0.67	0.24	0.94	1.39	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.80	0.22	0.94	1.40	1.46			N/A	N/A
	3 - A249 offslip (SB)	1.22	0.08	0.99	2.28	2.98			N/A	N/A
	4 - Swale Way	207.39	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.99	0.10	1.20	7.15	9.94			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	81.16	39.34	77.19	119.54	133.79			N/A	N/A
	2 - Grovehurst Road	1.03	0.03	0.27	1.03	1.09			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.25	0.59	0.59			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.86	0.03	0.25	0.86	0.86			N/A	N/A
	3 - A249 offslip (SB)	2.36	0.03	0.30	2.55	10.91			N/A	N/A
	4 - Swale Way	413.75	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	7.15	0.07	1.09	20.52	32.34			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	144.33	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.05	0.03	0.28	1.05	3.52			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.03	0.28	0.64	2.21			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.86	0.03	0.26	0.86	0.86			N/A	N/A
	3 - A249 offslip (SB)	2.43	0.03	0.28	2.43	7.29			N/A	N/A
	4 - Swale Way	620.34	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	8.21	0.05	0.46	23.02	43.38			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	153.89	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.74	0.08	0.79	1.05	1.05			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.35	0.06	0.75	3.08	4.54			N/A	N/A
	4 - Swale Way	754.32	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.49	0.04	0.43	9.68	17.76			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	122.88	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.55	0.05	0.47	1.32	1.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.46	0.00	0.00	0.46	0.46			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.83	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.89	0.04	0.41	2.06	3.37			N/A	N/A
	4 - Swale Way	835.64	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.93	0.03	0.34	4.35	10.10			N/A	N/A

# 2024 + K3 Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	231.93	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	373.34	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	863	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	692	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	821
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	147	327	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	141	0	0	910	183
	3 - A249 offslip (SB)	1	18	0	377	174
	4 - Swale Way	389	226	0	0	77
	5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	7	0	18
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	7	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	16	6
	3 - A249 offslip (SB)	0	6	0	9	4
	4 - Swale Way	39	10	0	0	9
	5 - Grovehurst Road	1	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.15	300.60	72.9	125.1	F	792	1188
	2 - Grovehurst Road	1.16	321.84	39.2	75.7	F	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.29	3.30	0.4	1.7	A	418	627
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.20	2.0	4.9	A	1114	1672
	3 - A249 offslip (SB)	1.49	1134.31	134.5	200.0	F	523	785
	4 - Swale Way	1.21	465.37	80.0	138.6	F	635	952
	5 - Grovehurst Road	1.15	303.49	52.1	95.5	F	561	841

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	650	162	350	887	0.733	639	0	0.0	2.6	14.023	B
	2 - Grovehurst Road	331	83	850	574	0.577	326	140	0.0	1.3	14.239	B

	3 - A249 onslip (NB)			916				260				
	4 - B2005 - link	351	88	0	1530	0.230	350	916	0.0	0.3	3.049	A
2 - South	1 - A249 onslip (SB)			479				543				
	2 - B2005 - link	918	229	127	1780	0.516	914	352	0.0	1.1	4.138	A
	3 - A249 offslip (SB)	429	107	1041	655	0.655	422	0	0.0	1.8	15.028	C
	4 - Swale Way	521	130	383	661	0.788	508	1080	0.0	3.3	21.883	C
	5 - Grovehurst Road	460	115	570	685	0.672	452	321	0.0	1.9	15.022	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	776	194	410	845	0.918	756	0	2.6	7.6	34.371	D
	2 - Grovehurst Road	396	99	1002	474	0.835	385	164	1.3	4.0	36.600	E
	3 - A249 onslip (NB)			1082				305				
	4 - B2005 - link	410	103	0	1530	0.268	410	1082	0.3	0.4	3.215	A
2 - South	1 - A249 onslip (SB)			561				636				
	2 - B2005 - link	1084	271	150	1767	0.614	1082	411	1.1	1.6	5.245	A
	3 - A249 offslip (SB)	512	128	1232	506	1.013	472	0	1.8	11.9	71.617	F
	4 - Swale Way	622	156	444	631	0.985	590	1261	3.3	11.4	60.464	F
	5 - Grovehurst Road	549	137	663	616	0.892	533	370	1.9	5.9	37.919	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	950	238	436	826	1.150	817	0	7.6	40.9	121.432	F
	2 - Grovehurst Road	484	121	1078	423	1.145	412	175	4.0	22.1	136.403	F
	3 - A249 onslip (NB)			1166				324				
	4 - B2005 - link	437	109	0	1530	0.285	436	1166	0.4	0.4	3.292	A
2 - South	1 - A249 onslip (SB)			600				679				
	2 - B2005 - link	1169	292	163	1759	0.665	1168	437	1.6	1.9	6.069	A
	3 - A249 offslip (SB)	628	157	1330	430	1.460	429	0	11.9	61.6	328.415	F
	4 - Swale Way	762	190	452	628	1.214	623	1307	11.4	46.0	181.714	F
	5 - Grovehurst Road	673	168	702	588	1.145	578	373	5.9	29.7	128.942	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	950	238	439	824	1.153	823	0	40.9	72.9	259.440	F
	2 - Grovehurst Road	484	121	1086	418	1.158	416	176	22.1	39.2	282.586	F
	3 - A249 onslip (NB)			1175				327				
	4 - B2005 - link	439	110	0	1530	0.287	439	1175	0.4	0.4	3.301	A
2 - South	1 - A249 onslip (SB)			604				684				
	2 - B2005 - link	1178	295	164	1758	0.670	1178	440	1.9	2.0	6.197	A
	3 - A249 offslip (SB)	628	157	1342	421	1.491	421	0	61.6	113.3	754.943	F
	4 - Swale Way	762	190	452	628	1.214	627	1311	46.0	79.8	373.023	F
	5 - Grovehurst Road	673	168	706	585	1.150	583	373	29.7	52.1	266.368	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	776	194	436	826	0.939	815	0	72.9	63.0	300.602	F
	2 - Grovehurst Road	396	99	1076	425	0.932	414	175	39.2	34.6	321.839	F
	3 - A249 onslip (NB)			1166				324				
	4 - B2005 - link	436	109	0	1530	0.285	436	1166	0.4	0.4	3.290	A
2 - South	1 - A249 onslip (SB)			600				679				
	2 - B2005 - link	1169	292	163	1759	0.664	1169	437	2.0	2.0	6.102	A
	3 - A249 offslip (SB)	512	128	1332	429	1.195	429	0	113.3	134.3	1050.523	F
	4 - Swale Way	622	156	452	627	0.992	621	1308	79.8	80.0	465.371	F
	5 - Grovehurst Road	549	137	700	589	0.933	578	373	52.1	45.0	303.493	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	650	162	435	827	0.786	814	0	63.0	21.9	192.255	F

1 - North	2 - Grovehurst Road	331	83	1075	426	0.778	414	175	34.6	14.0	218.685	F
	3 - A249 onslip (NB)			1165				324				
	4 - B2005 - link	435	109	0	1530	0.285	435	1165	0.4	0.4	3.291	A
2 - South	1 - A249 onslip (SB)			599				677				
	2 - B2005 - link	1168	292	163	1759	0.664	1168	436	2.0	2.0	6.086	A
	3 - A249 offslip (SB)	429	107	1330	430	0.998	428	0	134.3	134.5	1134.310	F
	4 - Swale Way	521	130	452	628	0.830	620	1307	80.0	55.2	394.386	F
	5 - Grovehurst Road	460	115	699	590	0.779	577	373	45.0	15.7	195.374	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.58	0.08	1.39	6.25	8.83			N/A	N/A
	2 - Grovehurst Road	1.31	0.05	0.47	3.28	5.10			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.06	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.81	0.03	0.25	1.81	1.81			N/A	N/A
	4 - Swale Way	3.31	0.04	0.44	9.24	16.45			N/A	N/A
	5 - Grovehurst Road	1.94	0.07	1.03	4.72	6.81			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	7.65	0.18	3.77	19.01	26.21			N/A	N/A
	2 - Grovehurst Road	4.05	0.08	1.02	10.83	16.02			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.57	0.07	1.00	3.50	4.87			N/A	N/A
	3 - A249 offslip (SB)	11.86	0.03	0.29	11.86	31.85			N/A	N/A
	4 - Swale Way	11.41	0.27	6.20	28.09	38.22			N/A	N/A
	5 - Grovehurst Road	5.92	0.14	2.63	14.90	20.81			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	40.94	14.53	37.43	66.44	76.69			N/A	N/A
	2 - Grovehurst Road	22.11	5.26	19.10	39.15	46.57			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.95	0.03	0.27	1.95	1.95			N/A	N/A
	3 - A249 offslip (SB)	61.63	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	46.03	17.56	42.49	73.22	83.97			N/A	N/A
	5 - Grovehurst Road	29.67	8.70	26.41	50.43	59.12			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	72.85	32.44	68.65	110.67	125.05			N/A	N/A
	2 - Grovehurst Road	39.19	12.81	35.46	65.09	75.69			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.30	1.26	1.70			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.00	0.03	0.26	2.00	2.00			N/A	N/A
	3 - A249 offslip (SB)	113.33	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	79.81	40.04	76.18	116.02	129.37			N/A	N/A
	5 - Grovehurst Road	52.14	19.78	48.14	83.21	95.49			N/A	N/A



## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	62.99	22.97	57.95	102.04	117.59			N/A	N/A
	2 - Grovehurst Road	34.59	7.83	29.83	62.72	75.01			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.20	1.13	3.66	4.65			N/A	N/A
	3 - A249 offslip (SB)	134.26	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	79.96	34.91	75.21	122.39	138.57			N/A	N/A
	5 - Grovehurst Road	44.99	12.90	40.09	77.61	91.27			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	21.89	3.09	17.67	42.73	52.52			N/A	N/A
	2 - Grovehurst Road	13.99	0.89	9.55	31.03	40.15			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.52	1.31	3.07	3.80			N/A	N/A
	3 - A249 offslip (SB)	134.48	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	55.22	13.89	48.43	98.56	117.11			N/A	N/A
	5 - Grovehurst Road	15.66	1.39	11.36	33.42	42.53			N/A	N/A

# 2024 + K3 Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	254.75	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1657.79	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	828	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	443	100.000
	4 - Swale Way		ONE HOUR	✓	1277	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From				
	1 - A249 offslip (NB)	0	180	0	648
	2 - Grovehurst Road	0	0	27	200
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	262	522	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	480	322
	3 - A249 offslip (SB)	1	27	0	199	216
	4 - Swale Way	686	432	0	0	159
	5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	22
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	4	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	28	1
	3 - A249 offslip (SB)	0	11	0	8	4
	4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.25	467.32	101.4	157.9	F	760	1140
	2 - Grovehurst Road	0.49	13.78	0.9	3.5	B	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.64	0.6	2.2	A	539	809
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.46	3.83	0.8	1.5	A	752	1127
	3 - A249 offslip (SB)	0.65	13.84	1.8	5.8	B	407	610
	4 - Swale Way	2.25	3927.96	771.1	179.2	F	1172	1758
	5 - Grovehurst Road	0.85	33.46	5.2	27.6	D	490	735

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	623	156	492	798	0.781	610	0	0.0	3.2	18.082	C
	2 - Grovehurst Road	171	43	805	618	0.276	169	297	0.0	0.4	7.992	A

	3 - A249 onslip (NB)			627				348				
	4 - B2005 - link	494	123	0	1580	0.313	492	627	0.0	0.5	3.302	A
2 - South	1 - A249 onslip (SB)			572				490				
	2 - B2005 - link	630	158	79	1750	0.360	628	493	0.0	0.6	3.201	A
	3 - A249 offslip (SB)	334	83	706	908	0.367	331	0	0.0	0.6	6.218	A
	4 - Swale Way	961	240	453	711	1.351	701	584	0.0	65.2	179.281	F
	5 - Grovehurst Road	402	101	666	657	0.612	396	488	0.0	1.5	13.497	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	744	186	534	770	0.966	714	0	3.2	10.8	48.303	E
	2 - Grovehurst Road	204	51	914	543	0.376	203	334	0.4	0.6	10.558	B
	3 - A249 onslip (NB)			738				379				
	4 - B2005 - link	534	133	0	1580	0.338	534	738	0.5	0.5	3.439	A
2 - South	1 - A249 onslip (SB)			628				493				
	2 - B2005 - link	741	185	95	1741	0.426	741	533	0.6	0.7	3.596	A
	3 - A249 offslip (SB)	398	100	835	804	0.495	397	0	0.6	1.0	8.808	A
	4 - Swale Way	1148	287	538	665	1.727	665	694	65.2	186.0	709.102	F
	5 - Grovehurst Road	480	120	644	672	0.714	477	559	1.5	2.3	18.085	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	912	228	586	734	1.241	730	0	10.8	56.1	178.772	F
	2 - Grovehurst Road	250	62	962	513	0.487	249	355	0.6	0.9	13.547	B
	3 - A249 onslip (NB)			791				420				
	4 - B2005 - link	587	147	0	1580	0.371	586	791	0.5	0.6	3.622	A
2 - South	1 - A249 onslip (SB)			701				496				
	2 - B2005 - link	789	197	115	1730	0.456	789	586	0.7	0.8	3.822	A
	3 - A249 offslip (SB)	488	122	904	750	0.651	484	0	1.0	1.8	13.410	B
	4 - Swale Way	1406	352	607	627	2.244	627	781	186.0	380.8	1634.776	F
	5 - Grovehurst Road	588	147	618	690	0.852	578	615	2.3	4.8	29.803	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	912	228	591	731	1.247	730	0	56.1	101.4	392.448	F
	2 - Grovehurst Road	250	62	965	511	0.489	250	356	0.9	0.9	13.781	B
	3 - A249 onslip (NB)			792				423				
	4 - B2005 - link	591	148	0	1580	0.374	591	792	0.6	0.6	3.639	A
2 - South	1 - A249 onslip (SB)			707				497				
	2 - B2005 - link	790	198	116	1729	0.457	790	590	0.8	0.8	3.833	A
	3 - A249 offslip (SB)	488	122	907	747	0.653	488	0	1.8	1.8	13.836	B
	4 - Swale Way	1406	352	609	625	2.249	625	785	380.8	576.0	2651.787	F
	5 - Grovehurst Road	588	147	618	690	0.852	586	617	4.8	5.2	33.461	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	744	186	539	767	0.971	759	0	101.4	97.7	467.322	F
	2 - Grovehurst Road	204	51	953	516	0.395	205	345	0.9	0.7	11.617	B
	3 - A249 onslip (NB)			775				383				
	4 - B2005 - link	539	135	0	1580	0.341	539	775	0.6	0.5	3.457	A
2 - South	1 - A249 onslip (SB)			635				492				
	2 - B2005 - link	779	195	97	1740	0.448	780	538	0.8	0.8	3.752	A
	3 - A249 offslip (SB)	398	100	877	770	0.517	401	0	1.8	1.1	9.841	A
	4 - Swale Way	1148	287	557	654	1.754	654	721	576.0	699.4	3435.158	F
	5 - Grovehurst Road	480	120	637	677	0.709	490	575	5.2	2.6	20.208	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	623	156	492	799	0.781	791	0	97.7	55.9	351.810	F

1 - North	2 - Grovehurst Road	171	43	946	518	0.330	172	336	0.7	0.5	10.420	B
	3 - A249 onslip (NB)			770				348				
	4 - B2005 - link	491	123	0	1580	0.311	492	770	0.5	0.5	3.309	A
2 - South	1 - A249 onslip (SB)			571				486				
	2 - B2005 - link	780	195	81	1749	0.446	780	491	0.8	0.8	3.716	A
	3 - A249 offslip (SB)	334	83	860	782	0.426	335	0	1.1	0.8	8.076	A
	4 - Swale Way	961	240	521	675	1.425	675	674	699.4	771.1	3927.961	F
	5 - Grovehurst Road	402	101	651	668	0.602	406	545	2.6	1.6	13.977	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.25	0.05	0.78	9.02	14.40			N/A	N/A
	2 - Grovehurst Road	0.38	0.00	0.00	0.38	0.38			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.56	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.57	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	65.19	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.52	1.05	1.50	1.90	1.95			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.75	0.28	5.95	26.19	35.48			N/A	N/A
	2 - Grovehurst Road	0.59	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.74	0.20	0.93	1.39	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.96	0.09	0.92	1.55	1.88			N/A	N/A
	4 - Swale Way	185.99	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.35	0.09	1.42	5.38	7.42			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	56.07	25.91	52.95	83.78	94.26			N/A	N/A
	2 - Grovehurst Road	0.92	0.03	0.26	0.92	0.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.25	0.59	0.59			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.83	0.03	0.25	0.83	0.83			N/A	N/A
	3 - A249 offslip (SB)	1.79	0.03	0.28	1.79	5.78			N/A	N/A
	4 - Swale Way	380.85	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.78	0.04	0.44	13.29	24.69			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	101.36	58.00	98.08	139.76	153.40			N/A	N/A
	2 - Grovehurst Road	0.94	0.03	0.28	0.94	3.50			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.03	0.28	0.65	2.19			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.03	0.26	0.84	0.87			N/A	N/A
	3 - A249 offslip (SB)	1.84	0.03	0.28	1.84	4.52			N/A	N/A
	4 - Swale Way	576.03	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.15	0.03	0.34	9.90	27.63			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	97.68	49.49	93.43	141.70	157.86			N/A	N/A
	2 - Grovehurst Road	0.67	0.08	0.79	1.37	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.82	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.09	0.07	0.90	1.95	2.72			N/A	N/A
	4 - Swale Way	699.42	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.59	0.04	0.43	7.14	12.70			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	55.88	18.36	50.73	93.19	108.39			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.45	1.28	1.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.75	0.05	0.48	1.48	1.98			N/A	N/A
	4 - Swale Way	771.06	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.57	0.03	0.35	3.82	8.02			N/A	N/A

# 2024 + WKN Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	239.43	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	386.53	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2024 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	869	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	698	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	827
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	147	327	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	141	0	0	916	183
	3 - A249 offslip (SB)	1	18	0	377	174
	4 - Swale Way	395	226	0	0	77
	5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	7	0	18
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	7	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	17	6
	3 - A249 offslip (SB)	0	6	0	9	4
	4 - Swale Way	40	10	0	0	9
	5 - Grovehurst Road	1	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.16	312.69	75.4	127.9	F	797	1196
	2 - Grovehurst Road	1.16	324.78	39.4	76.0	F	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.29	3.29	0.4	1.7	A	416	624
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.26	2.0	4.9	A	1110	1665
	3 - A249 offslip (SB)	1.50	1152.20	136.2	186.3	F	523	785
	4 - Swale Way	1.23	499.91	86.0	146.3	F	640	961
	5 - Grovehurst Road	1.15	310.97	52.8	96.3	F	561	841

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	654	164	350	887	0.738	644	0	0.0	2.6	14.242	B
	2 - Grovehurst Road	331	83	854	571	0.580	326	140	0.0	1.3	14.389	B



	3 - A249 onslip (NB)			920				260				
	4 - B2005 - link	351	88	0	1530	0.229	350	920	0.0	0.3	3.048	A
2 - South	1 - A249 onslip (SB)			479				546				
	2 - B2005 - link	916	229	127	1768	0.518	912	351	0.0	1.1	4.185	A
	3 - A249 offslip (SB)	429	107	1039	651	0.659	422	0	0.0	1.8	15.232	C
	4 - Swale Way	525	131	381	659	0.798	512	1080	0.0	3.5	22.729	C
	5 - Grovehurst Road	460	115	573	680	0.676	452	320	0.0	2.0	15.298	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	781	195	409	846	0.924	760	0	2.6	8.0	35.390	E
	2 - Grovehurst Road	396	99	1005	471	0.839	384	163	1.3	4.1	37.346	E
	3 - A249 onslip (NB)			1086				304				
	4 - B2005 - link	409	102	0	1530	0.267	409	1086	0.3	0.4	3.211	A
2 - South	1 - A249 onslip (SB)			560				638				
	2 - B2005 - link	1081	270	150	1755	0.616	1079	410	1.1	1.6	5.313	A
	3 - A249 offslip (SB)	512	128	1229	503	1.019	471	0	1.8	12.3	73.871	F
	4 - Swale Way	627	157	441	629	0.997	592	1258	3.5	12.4	64.381	F
	5 - Grovehurst Road	549	137	665	612	0.897	533	368	2.0	6.1	39.031	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	957	239	434	828	1.156	819	0	8.0	42.3	124.733	F
	2 - Grovehurst Road	484	121	1079	423	1.146	412	174	4.1	22.3	137.723	F
	3 - A249 onslip (NB)			1168				323				
	4 - B2005 - link	434	108	0	1530	0.284	434	1168	0.4	0.4	3.284	A
2 - South	1 - A249 onslip (SB)			597				680				
	2 - B2005 - link	1164	291	162	1748	0.666	1162	435	1.6	2.0	6.132	A
	3 - A249 offslip (SB)	628	157	1325	428	1.465	427	0	12.3	62.5	334.901	F
	4 - Swale Way	769	192	448	626	1.228	622	1303	12.4	49.0	193.075	F
	5 - Grovehurst Road	673	168	700	586	1.147	577	371	6.1	30.1	131.118	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	957	239	437	826	1.158	825	0	42.3	75.4	267.195	F
	2 - Grovehurst Road	484	121	1086	418	1.159	416	175	22.3	39.4	284.665	F
	3 - A249 onslip (NB)			1177				325				
	4 - B2005 - link	437	109	0	1530	0.285	437	1177	0.4	0.4	3.292	A
2 - South	1 - A249 onslip (SB)			601				684				
	2 - B2005 - link	1172	293	164	1747	0.671	1172	438	2.0	2.0	6.259	A
	3 - A249 offslip (SB)	628	157	1336	420	1.496	419	0	62.5	114.5	765.610	F
	4 - Swale Way	769	192	448	626	1.228	625	1307	49.0	84.8	396.376	F
	5 - Grovehurst Road	673	168	704	584	1.152	582	370	30.1	52.8	270.426	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	781	195	433	828	0.943	817	0	75.4	66.3	312.693	F
	2 - Grovehurst Road	396	99	1077	424	0.933	414	174	39.4	34.9	324.783	F
	3 - A249 onslip (NB)			1168				323				
	4 - B2005 - link	433	108	0	1530	0.283	433	1168	0.4	0.4	3.286	A
2 - South	1 - A249 onslip (SB)			596				679				
	2 - B2005 - link	1163	291	162	1748	0.665	1163	434	2.0	2.0	6.157	A
	3 - A249 offslip (SB)	512	128	1325	428	1.198	428	0	114.5	135.7	1064.285	F
	4 - Swale Way	627	157	449	626	1.003	622	1304	84.8	86.0	499.905	F
	5 - Grovehurst Road	549	137	700	586	0.937	575	371	52.8	46.3	310.972	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	654	164	433	829	0.789	816	0	66.3	25.8	207.183	F

1 - North	2 - Grovehurst Road	331	83	1075	425	0.779	413	174	34.9	14.5	222.397	F
	3 - A249 onslip (NB)			1167				322				
	4 - B2005 - link	433	108	0	1530	0.283	433	1167	0.4	0.4	3.283	A
2 - South	1 - A249 onslip (SB)			596				677				
	2 - B2005 - link	1162	291	162	1748	0.665	1162	434	2.0	2.0	6.148	A
	3 - A249 offslip (SB)	429	107	1324	429	1.001	427	0	135.7	136.2	1152.196	F
	4 - Swale Way	525	131	448	626	0.840	619	1303	86.0	62.7	434.293	F
	5 - Grovehurst Road	460	115	697	589	0.781	576	370	46.3	17.2	204.371	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.65	0.08	1.31	6.60	9.48			N/A	N/A
	2 - Grovehurst Road	1.33	0.05	0.46	3.35	5.25			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.07	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.84	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	3.48	0.04	0.41	9.42	18.08			N/A	N/A
	5 - Grovehurst Road	1.98	0.06	0.99	4.86	7.08			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	7.96	0.18	3.94	19.82	27.30			N/A	N/A
	2 - Grovehurst Road	4.14	0.08	1.09	11.04	16.32			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.58	0.07	1.01	3.54	4.92			N/A	N/A
	3 - A249 offslip (SB)	12.31	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	12.42	0.27	6.64	30.85	42.15			N/A	N/A
	5 - Grovehurst Road	6.11	0.14	2.76	15.35	21.38			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	42.31	15.41	38.82	68.19	78.54			N/A	N/A
	2 - Grovehurst Road	22.29	5.36	19.29	39.40	46.83			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.96	0.03	0.27	1.96	1.96			N/A	N/A
	3 - A249 offslip (SB)	62.46	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	48.96	18.88	45.27	77.71	89.05			N/A	N/A
	5 - Grovehurst Road	30.12	8.97	26.86	51.01	59.75			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	75.38	34.42	71.23	113.48	127.86			N/A	N/A
	2 - Grovehurst Road	39.45	13.01	35.74	65.41	76.03			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.30	1.26	1.67			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.01	0.03	0.26	2.01	2.01			N/A	N/A
	3 - A249 offslip (SB)	114.52	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	84.77	43.56	81.13	122.12	135.80			N/A	N/A
	5 - Grovehurst Road	52.84	20.32	48.87	83.98	96.26			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	66.34	24.64	61.20	106.92	123.01			N/A	N/A
	2 - Grovehurst Road	34.94	7.98	30.16	63.23	75.57			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.00	0.19	1.11	3.71	4.73			N/A	N/A
	3 - A249 offslip (SB)	135.70	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	86.03	39.22	81.34	129.76	146.25			N/A	N/A
	5 - Grovehurst Road	46.33	13.54	41.40	79.52	93.36			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	25.78	5.25	21.87	47.41	57.03			N/A	N/A
	2 - Grovehurst Road	14.47	0.92	9.89	32.11	41.55			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.00	0.51	1.31	3.14	3.85			N/A	N/A
	3 - A249 offslip (SB)	136.20	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	62.72	18.02	56.01	108.56	127.70			N/A	N/A
	5 - Grovehurst Road	17.23	1.50	13.09	35.42	44.40			N/A	N/A

# 2024 + WKN Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	255.23	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1720.77	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2024 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	830	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	444	100.000
	4 - Swale Way		ONE HOUR	✓	1295	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From				
	1 - A249 offslip (NB)	0	180	0	650
	2 - Grovehurst Road	0	0	27	200
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	262	522	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	482	322
	3 - A249 offslip (SB)	1	27	0	200	216
	4 - Swale Way	704	432	0	0	159
	5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	22
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	4	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	29	1
	3 - A249 offslip (SB)	0	11	0	8	4
	4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.25	466.82	101.5	158.0	F	762	1142
	2 - Grovehurst Road	0.49	13.79	0.9	3.5	B	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.63	0.6	2.2	A	536	804
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.46	3.86	0.8	1.5	A	750	1125
	3 - A249 offslip (SB)	0.66	13.98	1.9	6.0	B	407	611
	4 - Swale Way	2.28	4046.98	795.3	179.1	F	1188	1782
	5 - Grovehurst Road	0.85	33.79	5.2	28.0	D	490	735

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	625	156	489	800	0.781	612	0	0.0	3.2	18.033	C
	2 - Grovehurst Road	171	43	805	619	0.276	169	296	0.0	0.4	7.988	A

	3 - A249 onslip (NB)			628				346				
	4 - B2005 - link	491	123	0	1580	0.311	489	628	0.0	0.4	3.292	A
2 - South	1 - A249 onslip (SB)			568				495				
	2 - B2005 - link	628	157	79	1741	0.361	626	490	0.0	0.6	3.222	A
	3 - A249 offslip (SB)	334	84	705	907	0.369	332	0	0.0	0.6	6.240	A
	4 - Swale Way	975	244	452	711	1.370	701	585	0.0	68.4	187.484	F
	5 - Grovehurst Road	402	101	667	656	0.613	396	486	0.0	1.5	13.565	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	746	187	531	772	0.966	716	0	3.2	10.7	48.170	E
	2 - Grovehurst Road	204	51	914	543	0.376	203	333	0.4	0.6	10.560	B
	3 - A249 onslip (NB)			740				377				
	4 - B2005 - link	531	133	0	1580	0.336	531	740	0.4	0.5	3.429	A
2 - South	1 - A249 onslip (SB)			625				497				
	2 - B2005 - link	739	185	95	1732	0.427	739	530	0.6	0.7	3.622	A
	3 - A249 offslip (SB)	399	100	833	802	0.498	398	0	0.6	1.0	8.854	A
	4 - Swale Way	1164	291	536	665	1.750	665	695	68.4	193.2	738.253	F
	5 - Grovehurst Road	480	120	645	671	0.715	477	556	1.5	2.4	18.189	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	914	228	583	736	1.241	732	0	10.7	56.1	178.492	F
	2 - Grovehurst Road	250	62	962	513	0.487	249	354	0.6	0.9	13.555	B
	3 - A249 onslip (NB)			793				418				
	4 - B2005 - link	584	146	0	1580	0.369	583	793	0.5	0.6	3.611	A
2 - South	1 - A249 onslip (SB)			698				500				
	2 - B2005 - link	787	197	115	1721	0.457	787	583	0.7	0.8	3.851	A
	3 - A249 offslip (SB)	489	122	901	748	0.654	485	0	1.0	1.8	13.542	B
	4 - Swale Way	1426	356	605	627	2.274	627	782	193.2	392.9	1688.879	F
	5 - Grovehurst Road	588	147	620	689	0.854	578	613	2.4	4.8	30.043	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	914	228	588	733	1.247	732	0	56.1	101.5	392.019	F
	2 - Grovehurst Road	250	62	965	511	0.489	250	355	0.9	0.9	13.790	B
	3 - A249 onslip (NB)			794				422				
	4 - B2005 - link	588	147	0	1580	0.372	588	794	0.6	0.6	3.628	A
2 - South	1 - A249 onslip (SB)			704				501				
	2 - B2005 - link	788	197	116	1720	0.458	788	588	0.8	0.8	3.862	A
	3 - A249 offslip (SB)	489	122	904	746	0.656	489	0	1.8	1.9	13.982	B
	4 - Swale Way	1426	356	608	626	2.279	626	785	392.9	593.0	2728.047	F
	5 - Grovehurst Road	588	147	619	689	0.853	586	614	4.8	5.2	33.791	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	746	187	536	768	0.971	761	0	101.5	97.8	466.825	F
	2 - Grovehurst Road	204	51	953	516	0.395	205	344	0.9	0.7	11.623	B
	3 - A249 onslip (NB)			777				381				
	4 - B2005 - link	536	134	0	1580	0.339	536	777	0.6	0.5	3.450	A
2 - South	1 - A249 onslip (SB)			632				496				
	2 - B2005 - link	777	194	97	1731	0.449	778	535	0.8	0.8	3.776	A
	3 - A249 offslip (SB)	399	100	875	768	0.520	402	0	1.9	1.1	9.913	A
	4 - Swale Way	1164	291	556	655	1.778	655	721	593.0	720.4	3534.847	F
	5 - Grovehurst Road	480	120	638	676	0.710	490	572	5.2	2.6	20.365	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	625	156	489	801	0.780	793	0	97.8	55.9	351.232	F

1 - North	2 - Grovehurst Road	171	43	946	518	0.330	172	335	0.7	0.5	10.425	B
	3 - A249 onslip (NB)			772				346				
	4 - B2005 - link	488	122	0	1580	0.309	489	772	0.5	0.4	3.300	A
2 - South	1 - A249 onslip (SB)			568				490				
	2 - B2005 - link	778	194	81	1740	0.447	778	487	0.8	0.8	3.740	A
	3 - A249 offslip (SB)	334	84	858	780	0.428	336	0	1.1	0.8	8.122	A
	4 - Swale Way	975	244	519	675	1.444	675	675	720.4	795.3	4046.983	F
	5 - Grovehurst Road	402	101	652	666	0.603	406	542	2.6	1.6	14.045	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.25	0.05	0.78	9.02	14.39			N/A	N/A
	2 - Grovehurst Road	0.38	0.00	0.00	0.38	0.38			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.56	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.58	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	68.43	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.52	1.05	1.50	1.90	1.95			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.75	0.28	5.94	26.19	35.49			N/A	N/A
	2 - Grovehurst Road	0.59	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.74	0.20	0.93	1.39	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.97	0.09	0.92	1.57	1.91			N/A	N/A
	4 - Swale Way	193.21	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.36	0.09	1.43	5.41	7.47			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	56.14	25.96	53.02	83.90	94.41			N/A	N/A
	2 - Grovehurst Road	0.92	0.03	0.26	0.92	0.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.58	0.03	0.25	0.58	0.58			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.03	0.25	0.84	0.84			N/A	N/A
	3 - A249 offslip (SB)	1.81	0.03	0.28	1.81	5.99			N/A	N/A
	4 - Swale Way	392.94	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.82	0.04	0.44	13.45	24.86			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	101.52	58.11	98.24	139.99	153.69			N/A	N/A
	2 - Grovehurst Road	0.94	0.03	0.28	0.94	3.50			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.28	0.69	2.21			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.03	0.26	0.84	0.85			N/A	N/A
	3 - A249 offslip (SB)	1.86	0.03	0.28	1.86	4.62			N/A	N/A
	4 - Swale Way	592.98	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.20	0.03	0.34	10.15	27.96			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	97.81	49.57	93.55	141.87	158.04			N/A	N/A
	2 - Grovehurst Road	0.67	0.08	0.79	1.37	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.82	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.10	0.07	0.90	1.98	2.77			N/A	N/A
	4 - Swale Way	720.36	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.61	0.04	0.43	7.19	12.80			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	55.89	18.39	50.74	93.14	108.30			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.45	1.28	1.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.76	0.05	0.48	1.51	2.03			N/A	N/A
	4 - Swale Way	795.31	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.57	0.03	0.35	3.83	8.07			N/A	N/A



# 2024 + K3 and WKN Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	253.02	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	397.60	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	871	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	701	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	829
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	147	327	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	141	0	0	918	183
	3 - A249 offslip (SB)	1	18	0	377	174
	4 - Swale Way	398	226	0	0	77
	5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	7	0	19
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	7	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	17	6
	3 - A249 offslip (SB)	0	6	0	9	4
	4 - Swale Way	41	10	0	0	9
	5 - Grovehurst Road	1	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.17	335.56	79.4	132.2	F	799	1199
	2 - Grovehurst Road	1.16	329.00	39.8	76.5	F	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.28	3.29	0.4	1.7	A	415	622
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.28	2.0	5.0	A	1113	1670
	3 - A249 offslip (SB)	1.50	1171.76	138.2	186.3	F	523	785
	4 - Swale Way	1.24	527.84	91.0	152.5	F	643	965
	5 - Grovehurst Road	1.15	314.99	53.3	96.8	F	561	841

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	656	164	349	880	0.745	645	0	0.0	2.7	14.696	B
	2 - Grovehurst Road	331	83	855	567	0.584	326	139	0.0	1.4	14.627	B

	3 - A249 onslip (NB)			921				260				
	4 - B2005 - link	351	88	0	1530	0.229	349	921	0.0	0.3	3.048	A
2 - South	1 - A249 onslip (SB)			478				549				
	2 - B2005 - link	923	231	127	1768	0.522	918	351	0.0	1.1	4.218	A
	3 - A249 offslip (SB)	429	107	1046	646	0.664	422	0	0.0	1.9	15.548	C
	4 - Swale Way	528	132	382	655	0.806	513	1085	0.0	3.6	23.493	C
	5 - Grovehurst Road	460	115	575	677	0.680	452	320	0.0	2.0	15.519	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	783	196	408	840	0.933	760	0	2.7	8.5	37.368	E
	2 - Grovehurst Road	396	99	1005	468	0.846	384	163	1.4	4.3	38.551	E
	3 - A249 onslip (NB)			1085				303				
	4 - B2005 - link	408	102	0	1530	0.267	408	1085	0.3	0.4	3.208	A
2 - South	1 - A249 onslip (SB)			558				639				
	2 - B2005 - link	1087	272	150	1755	0.620	1085	409	1.1	1.6	5.359	A
	3 - A249 offslip (SB)	512	128	1235	498	1.029	468	0	1.9	13.0	77.246	F
	4 - Swale Way	630	158	442	626	1.007	592	1262	3.6	13.3	67.781	F
	5 - Grovehurst Road	549	137	665	610	0.901	532	368	2.0	6.3	39.861	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	959	240	432	823	1.166	815	0	8.5	44.5	131.180	F
	2 - Grovehurst Road	484	121	1074	422	1.149	411	173	4.3	22.6	139.736	F
	3 - A249 onslip (NB)			1164				321				
	4 - B2005 - link	432	108	0	1530	0.282	432	1164	0.4	0.4	3.278	A
2 - South	1 - A249 onslip (SB)			595				679				
	2 - B2005 - link	1166	291	162	1748	0.667	1164	433	1.6	2.0	6.154	A
	3 - A249 offslip (SB)	628	157	1327	427	1.471	425	0	13.0	63.5	343.252	F
	4 - Swale Way	772	193	448	623	1.239	620	1304	13.3	51.2	202.629	F
	5 - Grovehurst Road	673	168	698	586	1.149	576	370	6.3	30.4	132.574	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	959	240	434	821	1.168	820	0	44.5	79.4	282.087	F
	2 - Grovehurst Road	484	121	1080	418	1.160	415	174	22.6	39.8	287.685	F
	3 - A249 onslip (NB)			1172				323				
	4 - B2005 - link	434	109	0	1530	0.284	434	1172	0.4	0.4	3.286	A
2 - South	1 - A249 onslip (SB)			599				683				
	2 - B2005 - link	1174	293	164	1747	0.672	1174	436	2.0	2.0	6.276	A
	3 - A249 offslip (SB)	628	157	1337	418	1.500	418	0	63.5	115.9	777.959	F
	4 - Swale Way	772	193	448	623	1.239	623	1308	51.2	88.6	415.478	F
	5 - Grovehurst Road	673	168	701	583	1.153	581	369	30.4	53.3	272.895	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	783	196	432	823	0.952	813	0	79.4	71.9	335.559	F
	2 - Grovehurst Road	396	99	1071	423	0.934	413	173	39.8	35.4	328.996	F
	3 - A249 onslip (NB)			1163				321				
	4 - B2005 - link	432	108	0	1530	0.282	432	1163	0.4	0.4	3.280	A
2 - South	1 - A249 onslip (SB)			594				679				
	2 - B2005 - link	1165	291	162	1748	0.666	1165	433	2.0	2.0	6.177	A
	3 - A249 offslip (SB)	512	128	1327	427	1.201	426	0	115.9	137.4	1080.073	F
	4 - Swale Way	630	158	448	623	1.012	621	1305	88.6	91.0	527.845	F
	5 - Grovehurst Road	549	137	699	585	0.939	574	370	53.3	47.0	314.987	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	656	164	431	823	0.796	812	0	71.9	32.8	235.586	F

1 - North	2 - Grovehurst Road	331	83	1070	424	0.781	412	173	35.4	15.2	227.705	F
	3 - A249 onslip (NB)			1162				321				
	4 - B2005 - link	431	108	0	1530	0.282	431	1162	0.4	0.4	3.275	A
	1 - A249 onslip (SB)			594				677				
2 - South	2 - B2005 - link	1164	291	162	1748	0.666	1164	432	2.0	2.0	6.166	A
	3 - A249 offslip (SB)	429	107	1326	427	1.005	426	0	137.4	138.2	1171.756	F
	4 - Swale Way	528	132	448	623	0.847	616	1304	91.0	68.8	468.088	F
	5 - Grovehurst Road	460	115	695	588	0.782	576	369	47.0	18.1	209.204	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.74	0.07	1.14	7.15	10.64			N/A	N/A
	2 - Grovehurst Road	1.35	0.05	0.46	3.44	5.46			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.08	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.88	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	3.63	0.04	0.38	9.39	19.38			N/A	N/A
	5 - Grovehurst Road	2.01	0.06	0.98	4.97	7.31			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	8.49	0.19	4.22	21.21	29.23			N/A	N/A
	2 - Grovehurst Road	4.28	0.08	1.21	11.40	16.75			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.60	0.07	1.02	3.60	4.99			N/A	N/A
	3 - A249 offslip (SB)	12.98	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	13.26	0.26	6.97	33.23	45.57			N/A	N/A
	5 - Grovehurst Road	6.25	0.15	2.88	15.66	21.75			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	44.49	16.81	41.00	70.90	81.37			N/A	N/A
	2 - Grovehurst Road	22.57	5.49	19.57	39.80	47.27			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.97	0.03	0.27	1.97	1.97			N/A	N/A
	3 - A249 offslip (SB)	63.52	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	51.23	19.76	47.40	81.39	93.30			N/A	N/A
	5 - Grovehurst Road	30.40	9.14	27.16	51.38	60.12			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	79.35	37.67	75.31	117.81	132.18			N/A	N/A
	2 - Grovehurst Road	39.82	13.27	36.13	65.84	76.47			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.30	1.26	1.65			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.02	0.03	0.26	2.02	2.02			N/A	N/A
	3 - A249 offslip (SB)	115.88	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	88.56	46.15	84.90	126.95	140.97			N/A	N/A
	5 - Grovehurst Road	53.26	20.64	49.32	84.52	96.85			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	71.95	27.85	66.72	114.54	131.25			N/A	N/A
	2 - Grovehurst Road	35.45	8.18	30.65	64.04	76.52			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.01	0.18	1.10	3.77	4.82			N/A	N/A
	3 - A249 offslip (SB)	137.36	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	90.97	42.76	86.30	135.74	152.50			N/A	N/A
	5 - Grovehurst Road	47.03	13.89	42.07	80.51	94.43			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	32.83	8.07	28.60	58.39	69.42			N/A	N/A
	2 - Grovehurst Road	15.15	0.96	10.38	33.65	43.52			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.01	0.49	1.31	3.20	3.90			N/A	N/A
	3 - A249 offslip (SB)	138.17	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	68.83	21.66	62.23	116.46	135.99			N/A	N/A
	5 - Grovehurst Road	18.08	1.87	14.01	36.55	45.53			N/A	N/A

# 2024 + K3 and WKN Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	259.45	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1729.63	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	832	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	444	100.000
	4 - Swale Way		ONE HOUR	✓	1298	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From				
	1 - A249 offslip (NB)	0	180	0	652
	2 - Grovehurst Road	0	0	27	200
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	262	523	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	484	322
	3 - A249 offslip (SB)	1	27	0	200	216
	4 - Swale Way	706	433	0	0	159
	5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	22
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	29	1
	3 - A249 offslip (SB)	0	11	0	8	4
	4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.25	474.13	102.9	160.2	F	763	1145
	2 - Grovehurst Road	0.49	13.77	0.9	3.5	B	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.61	0.6	2.2	A	540	810
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.46	3.86	0.8	1.4	A	750	1125
	3 - A249 offslip (SB)	0.66	14.00	1.9	6.0	B	407	611
	4 - Swale Way	2.28	4063.43	799.0	179.0	F	1191	1787
	5 - Grovehurst Road	0.85	33.88	5.2	28.1	D	490	735

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	626	157	492	800	0.783	613	0	0.0	3.3	18.159	C
	2 - Grovehurst Road	171	43	809	618	0.277	169	297	0.0	0.4	7.998	A

	3 - A249 onslip (NB)			630				348				
	4 - B2005 - link	494	123	0	1591	0.311	492	630	0.0	0.4	3.271	A
2 - South	1 - A249 onslip (SB)			569				495				
	2 - B2005 - link	630	157	79	1741	0.362	628	490	0.0	0.6	3.227	A
	3 - A249 offslip (SB)	334	84	706	905	0.369	332	0	0.0	0.6	6.253	A
	4 - Swale Way	977	244	452	711	1.373	701	586	0.0	69.0	188.846	F
	5 - Grovehurst Road	402	101	667	655	0.613	396	486	0.0	1.5	13.576	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	748	187	534	772	0.969	717	0	3.3	11.0	48.840	E
	2 - Grovehurst Road	204	51	918	543	0.376	203	333	0.4	0.6	10.567	B
	3 - A249 onslip (NB)			741				380				
	4 - B2005 - link	534	134	0	1591	0.336	534	741	0.4	0.5	3.407	A
2 - South	1 - A249 onslip (SB)			625				498				
	2 - B2005 - link	740	185	95	1732	0.428	740	530	0.6	0.7	3.627	A
	3 - A249 offslip (SB)	399	100	834	801	0.498	398	0	0.6	1.0	8.884	A
	4 - Swale Way	1167	292	536	665	1.754	665	696	69.0	194.4	742.833	F
	5 - Grovehurst Road	480	120	645	671	0.716	477	556	1.5	2.4	18.205	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	916	229	587	736	1.244	732	0	11.0	56.9	180.819	F
	2 - Grovehurst Road	250	62	965	513	0.487	249	354	0.6	0.9	13.540	B
	3 - A249 onslip (NB)			793				421				
	4 - B2005 - link	588	147	0	1591	0.369	587	793	0.5	0.6	3.588	A
2 - South	1 - A249 onslip (SB)			698				500				
	2 - B2005 - link	787	197	115	1721	0.458	787	583	0.7	0.8	3.853	A
	3 - A249 offslip (SB)	489	122	902	748	0.654	486	0	1.0	1.8	13.559	B
	4 - Swale Way	1429	357	605	627	2.278	627	783	194.4	394.9	1696.764	F
	5 - Grovehurst Road	588	147	620	688	0.854	578	612	2.4	4.8	30.089	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	916	229	592	733	1.250	732	0	56.9	102.9	397.085	F
	2 - Grovehurst Road	250	62	968	511	0.489	250	356	0.9	0.9	13.771	B
	3 - A249 onslip (NB)			794				424				
	4 - B2005 - link	592	148	0	1591	0.372	592	794	0.6	0.6	3.605	A
2 - South	1 - A249 onslip (SB)			704				501				
	2 - B2005 - link	788	197	116	1720	0.458	788	588	0.8	0.8	3.864	A
	3 - A249 offslip (SB)	489	122	905	745	0.656	489	0	1.8	1.9	13.995	B
	4 - Swale Way	1429	357	607	626	2.283	626	786	394.9	595.6	2738.762	F
	5 - Grovehurst Road	588	147	619	689	0.853	586	614	4.8	5.2	33.876	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	748	187	540	768	0.974	761	0	102.9	99.6	474.133	F
	2 - Grovehurst Road	204	51	956	516	0.395	205	345	0.9	0.7	11.613	B
	3 - A249 onslip (NB)			777				384				
	4 - B2005 - link	539	135	0	1591	0.339	540	777	0.6	0.5	3.425	A
2 - South	1 - A249 onslip (SB)			632				497				
	2 - B2005 - link	778	194	97	1730	0.449	778	535	0.8	0.8	3.781	A
	3 - A249 offslip (SB)	399	100	875	768	0.520	402	0	1.9	1.1	9.923	A
	4 - Swale Way	1167	292	555	655	1.781	655	722	595.6	723.6	3548.707	F
	5 - Grovehurst Road	480	120	639	676	0.711	490	571	5.2	2.6	20.407	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	626	157	492	801	0.782	793	0	99.6	58.1	360.232	F



1 - North	2 - Grovehurst Road	171	43	949	518	0.330	172	336	0.7	0.5	10.420	B
	3 - A249 onslip (NB)			772				348				
	4 - B2005 - link	492	123	0	1591	0.309	492	772	0.5	0.4	3.276	A
2 - South	1 - A249 onslip (SB)			568				490				
	2 - B2005 - link	778	194	81	1740	0.447	778	488	0.8	0.8	3.743	A
	3 - A249 offslip (SB)	334	84	859	780	0.429	336	0	1.1	0.8	8.129	A
	4 - Swale Way	977	244	518	675	1.447	675	676	723.6	799.0	4063.433	F
	5 - Grovehurst Road	402	101	652	666	0.604	406	541	2.6	1.6	14.059	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.28	0.05	0.71	9.16	14.75			N/A	N/A
	2 - Grovehurst Road	0.38	0.00	0.00	0.38	0.38			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.56	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.58	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	68.97	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.53	1.05	1.50	1.90	1.95			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.96	0.28	6.07	26.71	36.18			N/A	N/A
	2 - Grovehurst Road	0.59	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.74	0.21	0.93	1.39	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.97	0.09	0.92	1.58	1.91			N/A	N/A
	4 - Swale Way	194.40	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.36	0.09	1.43	5.42	7.48			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	56.90	26.42	53.78	84.91	95.50			N/A	N/A
	2 - Grovehurst Road	0.92	0.03	0.26	0.92	0.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.58	0.03	0.25	0.58	0.58			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.03	0.25	0.84	0.84			N/A	N/A
	3 - A249 offslip (SB)	1.81	0.03	0.28	1.81	6.01			N/A	N/A
	4 - Swale Way	394.86	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.83	0.04	0.44	13.49	24.90			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	102.86	59.20	99.59	141.49	155.20			N/A	N/A
	2 - Grovehurst Road	0.94	0.03	0.28	0.94	3.49			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.28	0.69	2.21			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.03	0.26	0.84	0.84			N/A	N/A
	3 - A249 offslip (SB)	1.86	0.03	0.28	1.86	4.62			N/A	N/A
	4 - Swale Way	595.63	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.22	0.03	0.34	10.22	28.05			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	99.62	50.96	95.38	143.98	160.23			N/A	N/A
	2 - Grovehurst Road	0.67	0.08	0.79	1.37	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.82	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.11	0.07	0.90	1.98	2.78			N/A	N/A
	4 - Swale Way	723.59	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.61	0.04	0.43	7.20	12.82			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	58.07	19.29	52.81	96.59	112.23			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.45	1.28	1.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.76	0.05	0.48	1.51	2.04			N/A	N/A
	4 - Swale Way	799.02	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.58	0.03	0.35	3.83	8.08			N/A	N/A

# 2024 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	309.80	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	516.84	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	906	100.000
	2 - Grovehurst Road		ONE HOUR	✓	446	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	593	100.000
	4 - Swale Way		ONE HOUR	✓	694	100.000
	5 - Grovehurst Road		ONE HOUR	✓	736	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	45	0	861
		2 - Grovehurst Road	0	0	25	421
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	151	366	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	144	0	0	910	225
		3 - A249 offslip (SB)	1	18	0	377	197
		4 - Swale Way	391	226	0	0	77
5 - Grovehurst Road	287	277	0	172	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	13	0	17
		2 - Grovehurst Road	0	0	8	4
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	4	6	0		

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	2	0	0	16	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	39	10	0	0	9
5 - Grovehurst Road	1	1	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.20	409.50	95.1	157.5	F	831	1247
	2 - Grovehurst Road	1.19	404.72	46.7	87.3	F	409	614
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.28	3.26	0.4	1.7	A	425	637
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.07	2.0	5.0	A	1125	1688
	3 - A249 offslip (SB)	1.49	1203.05	147.7	186.5	F	544	816
	4 - Swale Way	1.27	604.90	102.4	167.5	F	637	955
	5 - Grovehurst Road	1.34	773.65	135.9	200.0	F	675	1013

## Main Results for each time segment

07:15 - 07:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	682	171	379	873	0.781	669	0	0.0	3.3	16.707	C
	2 - Grovehurst Road	336	84	904	539	0.623	329	144	0.0	1.6	16.705	C
	3 - A249 onslip (NB)			947				287				
	4 - B2005 - link	380	95	0	1539	0.247	379	947	0.0	0.3	3.100	A
2 - South	1 - A249 onslip (SB)			507				603				
	2 - B2005 - link	947	237	126	1781	0.532	943	381	0.0	1.1	4.273	A
	3 - A249 offslip (SB)	446	112	1069	634	0.704	438	0	0.0	2.2	17.629	C
	4 - Swale Way	522	131	431	636	0.822	507	1075	0.0	3.9	25.450	D
	5 - Grovehurst Road	554	139	571	686	0.807	539	367	0.0	3.7	22.652	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	814	204	428	839	0.971	782	0	3.3	11.5	46.703	E
	2 - Grovehurst Road	401	100	1046	447	0.896	385	164	1.6	5.6	48.577	E
	3 - A249 onslip (NB)			1106				324				
	4 - B2005 - link	428	107	0	1539	0.278	428	1106	0.3	0.4	3.239	A
2 - South	1 - A249 onslip (SB)			570				686				
	2 - B2005 - link	1107	277	141	1772	0.624	1105	429	1.1	1.6	5.374	A
	3 - A249 offslip (SB)	533	133	1245	496	1.074	474	0	2.2	16.9	93.325	F
	4 - Swale Way	624	156	491	606	1.029	579	1228	3.9	15.3	77.025	F
	5 - Grovehurst Road	662	165	654	625	1.059	602	416	3.7	18.6	84.404	F

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	998	249	435	833	1.197	828	0	11.5	53.8	155.166	F
	2 - Grovehurst Road	491	123	1096	414	1.185	407	168	5.6	26.6	164.438	F
	3 - A249 onslip (NB)			1172				331				
	4 - B2005 - link	435	109	0	1539	0.283	435	1172	0.4	0.4	3.261	A
2 - South	1 - A249 onslip (SB)			578				706				
	2 - B2005 - link	1172	293	141	1772	0.662	1171	436	1.6	1.9	5.979	A
	3 - A249 offslip (SB)	653	163	1313	443	1.473	442	0	16.9	69.5	369.694	F
	4 - Swale Way	764	191	499	603	1.268	600	1256	15.3	56.2	229.514	F
	5 - Grovehurst Road	810	203	680	606	1.337	605	420	18.6	70.1	278.202	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	998	249	436	833	1.197	832	0	53.8	95.1	331.237	F
	2 - Grovehurst Road	491	123	1099	412	1.192	410	169	26.6	46.7	338.107	F
	3 - A249 onslip (NB)			1178				331				
	4 - B2005 - link	436	109	0	1539	0.283	436	1178	0.4	0.4	3.261	A
2 - South	1 - A249 onslip (SB)			578				708				
	2 - B2005 - link	1179	295	141	1772	0.665	1179	437	1.9	2.0	6.065	A
	3 - A249 offslip (SB)	653	163	1320	437	1.493	437	0	69.5	123.4	805.316	F
	4 - Swale Way	764	191	499	602	1.269	602	1258	56.2	96.8	468.665	F
	5 - Grovehurst Road	810	203	682	604	1.341	604	419	70.1	121.6	581.238	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	814	204	436	833	0.977	825	0	95.1	92.5	409.497	F
	2 - Grovehurst Road	401	100	1092	417	0.962	417	168	46.7	42.8	404.717	F
	3 - A249 onslip (NB)			1177				332				
	4 - B2005 - link	436	109	0	1539	0.283	436	1177	0.4	0.4	3.261	A
2 - South	1 - A249 onslip (SB)			578				708				
	2 - B2005 - link	1177	294	141	1772	0.664	1177	437	2.0	2.0	6.049	A
	3 - A249 offslip (SB)	533	133	1318	439	1.215	439	0	123.4	147.0	1117.684	F
	4 - Swale Way	624	156	499	602	1.036	601	1258	96.8	102.4	604.898	F
	5 - Grovehurst Road	662	165	681	605	1.094	605	420	121.6	135.9	773.651	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	682	171	434	834	0.818	825	0	92.5	56.7	327.377	F
	2 - Grovehurst Road	336	84	1092	417	0.805	407	168	42.8	24.8	303.040	F
	3 - A249 onslip (NB)			1169				330				
	4 - B2005 - link	434	109	0	1539	0.282	434	1169	0.4	0.4	3.259	A
2 - South	1 - A249 onslip (SB)			576				704				
	2 - B2005 - link	1170	292	141	1772	0.660	1170	435	2.0	2.0	5.979	A
	3 - A249 offslip (SB)	446	112	1311	445	1.004	444	0	147.0	147.7	1203.052	F
	4 - Swale Way	522	131	499	603	0.867	597	1255	102.4	83.9	563.033	F
	5 - Grovehurst Road	554	139	676	608	0.911	604	419	135.9	123.5	773.448	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.28	0.05	0.50	9.21	15.27			N/A	N/A
	2 - Grovehurst Road	1.57	0.04	0.38	4.05	7.70			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.13	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	2.23	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	3.92	0.03	0.33	7.65	20.99			N/A	N/A
	5 - Grovehurst Road	3.67	0.03	0.27	3.67	3.67			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	11.51	0.29	6.39	28.12	38.12			N/A	N/A
	2 - Grovehurst Road	5.60	0.10	1.83	14.92	21.71			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.64	0.07	1.05	3.65	5.04			N/A	N/A
	3 - A249 offslip (SB)	16.90	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	15.25	0.22	7.23	39.65	55.46			N/A	N/A
	5 - Grovehurst Road	18.63	0.09	3.69	54.35	85.15			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	53.77	22.48	50.21	83.17	94.54			N/A	N/A
	2 - Grovehurst Road	26.58	7.47	23.51	45.53	53.55			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.92	0.03	0.27	1.92	1.92			N/A	N/A
	3 - A249 offslip (SB)	69.53	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	56.24	20.81	51.80	90.58	104.22			N/A	N/A
	5 - Grovehurst Road	70.08	19.83	62.51	122.01	143.79			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	95.05	50.02	91.23	135.72	150.48			N/A	N/A
	2 - Grovehurst Road	46.74	18.31	43.29	73.74	84.36			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.30	1.22	1.70			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.96	0.03	0.26	1.96	1.96			N/A	N/A
	3 - A249 offslip (SB)	123.43	>199	>199	>199	>199			N/A	N/A

	4 - Swale Way	96.79	50.92	92.90	138.24	153.30			N/A	N/A
	5 - Grovehurst Road	121.65	>199	>199	>199	>199			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	92.53	42.14	87.50	139.73	157.55			N/A	N/A
	2 - Grovehurst Road	42.77	11.96	37.97	74.14	87.34			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.97	0.18	1.06	3.67	4.70			N/A	N/A
	3 - A249 offslip (SB)	147.02	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	102.45	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	135.93	>199	>199	>199	>199			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	56.70	15.12	50.13	99.94	118.30			N/A	N/A
	2 - Grovehurst Road	24.85	1.76	18.36	53.12	67.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.96	0.45	1.26	3.10	3.84			N/A	N/A
	3 - A249 offslip (SB)	147.74	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	83.89	31.23	77.50	135.44	155.84			N/A	N/A
	5 - Grovehurst Road	123.46	>199	>199	>199	>199			N/A	N/A

# 2024 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	391.51	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1852.62	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	899	100.000
	2 - Grovehurst Road		ONE HOUR	✓	235	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	482	100.000
	4 - Swale Way		ONE HOUR	✓	1278	100.000
	5 - Grovehurst Road		ONE HOUR	✓	595	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -



1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	183	0	716
		2 - Grovehurst Road	0	0	27	208
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	264	541	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	45	0	0	482	393
		3 - A249 offslip (SB)	1	27	0	199	255
		4 - Swale Way	687	432	0	0	159
5 - Grovehurst Road	150	339	0	106	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	2	0	20
		2 - Grovehurst Road	0	0	0	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	0	3	0		

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	9	0	0	29	2
		3 - A249 offslip (SB)	0	11	0	8	3
		4 - Swale Way	19	3	0	0	3
5 - Grovehurst Road	1	2	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.35	702.80	156.2	200.0	F	825	1237
	2 - Grovehurst Road	0.52	14.88	1.1	3.5	B	216	323
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.38	3.63	0.6	2.2	A	546	819
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.47	3.89	0.9	1.5	A	775	1162
	3 - A249 offslip (SB)	0.72	16.99	2.4	11.0	C	442	663
	4 - Swale Way	2.44	4550.59	840.9	179.2	F	1173	1759
	5 - Grovehurst Road	0.91	48.89	8.3	43.6	E	546	819

## Main Results for each time segment

16:15 - 16:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	677	169	496	806	0.840	659	0	0.0	4.5	22.374	C
	2 - Grovehurst Road	177	44	858	584	0.303	175	297	0.0	0.4	8.762	A
	3 - A249 onslip (NB)			680				353				
	4 - B2005 - link	497	124	0	1590	0.313	496	680	0.0	0.5	3.282	A
2 - South	1 - A249 onslip (SB)			572				498				
	2 - B2005 - link	676	169	78	1749	0.387	674	494	0.0	0.6	3.342	A
	3 - A249 offslip (SB)	363	91	752	876	0.414	360	0	0.0	0.7	6.944	A
	4 - Swale Way	962	241	532	666	1.444	658	580	0.0	76.1	221.625	F
	5 - Grovehurst Road	448	112	630	679	0.659	441	560	0.0	1.8	14.665	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	808	202	538	776	1.041	749	0	4.5	19.3	72.827	F
	2 - Grovehurst Road	211	53	958	517	0.409	210	329	0.4	0.7	11.692	B
	3 - A249 onslip (NB)			783				386				
	4 - B2005 - link	539	135	0	1590	0.339	538	783	0.5	0.5	3.422	A
2 - South	1 - A249 onslip (SB)			629				504				
	2 - B2005 - link	777	194	94	1740	0.447	777	535	0.6	0.8	3.736	A
	3 - A249 offslip (SB)	433	108	871	779	0.556	431	0	0.7	1.2	10.288	B
	4 - Swale Way	1149	287	623	616	1.864	616	679	76.1	209.2	872.036	F
	5 - Grovehurst Road	535	134	603	698	0.766	530	637	1.8	3.0	20.842	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	990	247	593	740	1.338	738	0	19.3	82.2	260.015	F
	2 - Grovehurst Road	259	65	986	501	0.516	257	345	0.7	1.0	14.663	B
	3 - A249 onslip (NB)			816				428				
	4 - B2005 - link	593	148	0	1590	0.373	593	816	0.5	0.6	3.608	A
2 - South	1 - A249 onslip (SB)			702				512				
	2 - B2005 - link	805	201	114	1729	0.466	805	589	0.8	0.9	3.893	A
	3 - A249 offslip (SB)	531	133	918	742	0.715	526	0	1.2	2.4	16.349	C
	4 - Swale Way	1407	352	692	578	2.434	578	753	209.2	416.5	1951.241	F
	5 - Grovehurst Road	655	164	576	716	0.915	638	694	3.0	7.2	39.327	E

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	990	247	600	735	1.348	734	0	82.2	146.1	558.720	F
	2 - Grovehurst Road	259	65	988	500	0.517	259	346	1.0	1.1	14.876	B
	3 - A249 onslip (NB)			814				433				
	4 - B2005 - link	600	150	0	1590	0.377	600	814	0.6	0.6	3.634	A
2 - South	1 - A249 onslip (SB)			712				515				
	2 - B2005 - link	803	201	116	1728	0.465	803	596	0.9	0.9	3.891	A
	3 - A249 offslip (SB)	531	133	919	742	0.716	530	0	2.4	2.4	16.988	C
	4 - Swale Way	1407	352	694	577	2.438	577	756	416.5	624.0	3076.535	F
	5 - Grovehurst Road	655	164	575	717	0.914	651	695	7.2	8.3	48.894	E

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	808	202	551	768	1.052	768	0	146.1	156.2	702.804	F
	2 - Grovehurst Road	211	53	981	502	0.421	212	337	1.1	0.7	12.494	B
	3 - A249 onslip (NB)			799				394				
	4 - B2005 - link	550	138	0	1590	0.346	551	799	0.6	0.5	3.465	A
2 - South	1 - A249 onslip (SB)			645				507				
	2 - B2005 - link	795	199	99	1738	0.457	795	546	0.9	0.8	3.817	A
	3 - A249 offslip (SB)	433	108	893	761	0.569	438	0	2.4	1.4	11.270	B
	4 - Swale Way	1149	287	635	610	1.885	610	696	624.0	758.8	3968.539	F
	5 - Grovehurst Road	535	134	598	701	0.763	554	647	8.3	3.5	26.900	D

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	677	169	498	804	0.841	799	0	156.2	125.6	635.580	F
	2 - Grovehurst Road	177	44	971	506	0.350	178	326	0.7	0.5	11.005	B
	3 - A249 onslip (NB)			794				355				
	4 - B2005 - link	497	124	0	1590	0.313	498	794	0.5	0.5	3.297	A
2 - South	1 - A249 onslip (SB)			574				495				
	2 - B2005 - link	793	198	81	1747	0.454	793	493	0.8	0.8	3.772	A
	3 - A249 offslip (SB)	363	91	874	775	0.468	365	0	1.4	0.9	8.809	A
	4 - Swale Way	962	241	592	634	1.518	634	647	758.8	840.9	4550.590	F
	5 - Grovehurst Road	448	112	615	690	0.650	454	611	3.5	1.9	15.679	C

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.49	0.03	0.34	9.18	24.25			N/A	N/A
	2 - Grovehurst Road	0.43	0.00	0.00	0.43	0.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.63	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.70	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	76.08	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.85	0.71	1.39	1.98	2.43			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	19.30	0.40	10.87	47.76	64.81			N/A	N/A
	2 - Grovehurst Road	0.68	0.24	0.94	1.39	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.80	0.22	0.94	1.40	1.46			N/A	N/A
	3 - A249 offslip (SB)	1.22	0.08	0.99	2.30	2.99			N/A	N/A
	4 - Swale Way	209.24	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.01	0.10	1.21	7.19	9.99			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	82.23	39.80	78.22	121.26	135.79			N/A	N/A
	2 - Grovehurst Road	1.03	0.03	0.27	1.03	1.10			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.25	0.59	0.59			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.86	0.03	0.25	0.86	0.86			N/A	N/A
	3 - A249 offslip (SB)	2.37	0.03	0.30	2.59	10.98			N/A	N/A
	4 - Swale Way	416.49	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	7.21	0.07	1.16	20.67	32.45			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	146.10	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.05	0.03	0.28	1.05	3.52			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.03	0.28	0.66	2.22			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.87	0.03	0.26	0.87	0.87			N/A	N/A
	3 - A249 offslip (SB)	2.44	0.03	0.28	2.44	7.34			N/A	N/A

	4 - Swale Way	623.97	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	8.29	0.05	0.47	23.34	43.65			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	156.23	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.74	0.08	0.79	1.07	1.07			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.36	0.06	0.74	3.10	4.57			N/A	N/A
	4 - Swale Way	758.80	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.52	0.04	0.43	9.75	17.88			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	125.64	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.55	0.05	0.47	1.32	1.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.46	0.00	0.00	0.46	0.46			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.90	0.04	0.41	2.07	3.39			N/A	N/A
	4 - Swale Way	840.93	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.93	0.03	0.34	4.37	10.15			N/A	N/A

# 2024 + WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	331.83	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	532.05	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2024 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	912	100.000
	2 - Grovehurst Road		ONE HOUR	✓	446	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	593	100.000
	4 - Swale Way		ONE HOUR	✓	700	100.000
	5 - Grovehurst Road		ONE HOUR	✓	736	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	45	0	867
		2 - Grovehurst Road	0	0	25	421
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	151	366	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	144	0	0	916	225
		3 - A249 offslip (SB)	1	18	0	377	197
		4 - Swale Way	397	226	0	0	77
5 - Grovehurst Road	287	277	0	172	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	13	0	18
		2 - Grovehurst Road	0	0	8	4
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	4	6	0		

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	2	0	0	17	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	40	10	0	0	9
5 - Grovehurst Road	1	1	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.21	446.38	101.8	168.7	F	837	1255
	2 - Grovehurst Road	1.19	410.43	47.3	88.2	F	409	614
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.28	3.25	0.4	1.7	A	423	634
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.13	2.0	5.2	A	1122	1684
	3 - A249 offslip (SB)	1.50	1227.40	150.3	186.5	F	544	816
	4 - Swale Way	1.28	642.42	109.3	177.1	F	642	964
	5 - Grovehurst Road	1.34	784.93	137.4	200.0	F	675	1013

## Main Results for each time segment

07:15 - 07:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	687	172	378	866	0.792	673	0	0.0	3.5	17.517	C
	2 - Grovehurst Road	336	84	907	533	0.630	329	144	0.0	1.6	17.154	C
	3 - A249 onslip (NB)			950				286				
	4 - B2005 - link	380	95	0	1539	0.247	378	950	0.0	0.3	3.099	A
2 - South	1 - A249 onslip (SB)			507				606				
	2 - B2005 - link	951	238	126	1769	0.537	946	381	0.0	1.1	4.348	A
	3 - A249 offslip (SB)	446	112	1072	627	0.712	437	0	0.0	2.3	18.226	C
	4 - Swale Way	527	132	431	633	0.833	510	1078	0.0	4.2	26.618	D
	5 - Grovehurst Road	554	139	574	682	0.813	539	367	0.0	3.8	23.253	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	820	205	426	833	0.984	783	0	3.5	12.7	50.512	F
	2 - Grovehurst Road	401	100	1046	443	0.905	384	163	1.6	5.9	50.672	F
	3 - A249 onslip (NB)			1107				323				
	4 - B2005 - link	426	106	0	1539	0.277	426	1107	0.3	0.4	3.233	A
2 - South	1 - A249 onslip (SB)			567				687				
	2 - B2005 - link	1107	277	140	1761	0.628	1105	427	1.1	1.7	5.465	A
	3 - A249 offslip (SB)	533	133	1245	491	1.086	471	0	2.3	17.9	98.193	F
	4 - Swale Way	629	157	489	604	1.041	580	1227	4.2	16.6	82.013	F
	5 - Grovehurst Road	662	165	655	622	1.064	600	414	3.8	19.2	86.824	F

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1004	251	433	829	1.212	824	0	12.7	57.7	166.774	F
	2 - Grovehurst Road	491	123	1090	414	1.187	407	167	5.9	27.0	167.683	F
	3 - A249 onslip (NB)			1167				329				
	4 - B2005 - link	433	108	0	1539	0.281	433	1167	0.4	0.4	3.253	A
2 - South	1 - A249 onslip (SB)			575				706				
	2 - B2005 - link	1168	292	141	1761	0.663	1166	434	1.7	1.9	6.043	A
	3 - A249 offslip (SB)	653	163	1307	441	1.479	441	0	17.9	71.0	381.013	F
	4 - Swale Way	771	193	495	601	1.282	599	1253	16.6	59.5	243.239	F
	5 - Grovehurst Road	810	203	678	605	1.340	603	416	19.2	71.0	283.149	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1004	251	433	828	1.212	828	0	57.7	101.8	355.974	F
	2 - Grovehurst Road	491	123	1093	411	1.194	410	167	27.0	47.3	342.606	F
	3 - A249 onslip (NB)			1174				330				
	4 - B2005 - link	433	108	0	1539	0.281	433	1174	0.4	0.4	3.254	A
2 - South	1 - A249 onslip (SB)			575				708				
	2 - B2005 - link	1174	293	141	1761	0.667	1174	434	1.9	2.0	6.125	A
	3 - A249 offslip (SB)	653	163	1314	436	1.498	436	0	71.0	125.3	821.487	F
	4 - Swale Way	771	193	496	601	1.282	601	1254	59.5	102.0	494.820	F
	5 - Grovehurst Road	810	203	680	603	1.343	603	416	71.0	122.8	588.579	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	820	205	433	828	0.990	820	0	101.8	101.8	446.384	F
	2 - Grovehurst Road	401	100	1086	416	0.963	416	167	47.3	43.4	410.426	F
	3 - A249 onslip (NB)			1172				330				
	4 - B2005 - link	433	108	0	1539	0.281	433	1172	0.4	0.4	3.254	A
2 - South	1 - A249 onslip (SB)			575				708				
	2 - B2005 - link	1172	293	141	1761	0.665	1172	434	2.0	2.0	6.108	A
	3 - A249 offslip (SB)	533	133	1312	437	1.219	437	0	125.3	149.2	1137.818	F
	4 - Swale Way	629	157	496	601	1.047	600	1254	102.0	109.3	642.424	F
	5 - Grovehurst Road	662	165	679	604	1.096	603	416	122.8	137.4	783.235	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	687	172	432	829	0.828	821	0	101.8	68.1	373.876	F
	2 - Grovehurst Road	336	84	1086	416	0.807	407	167	43.4	25.7	310.234	F
	3 - A249 onslip (NB)			1165				328				
	4 - B2005 - link	432	108	0	1539	0.280	432	1165	0.4	0.4	3.252	A
2 - South	1 - A249 onslip (SB)			573				704				
	2 - B2005 - link	1165	291	141	1761	0.661	1165	433	2.0	2.0	6.041	A
	3 - A249 offslip (SB)	446	112	1306	443	1.008	442	0	149.2	150.3	1227.401	F
	4 - Swale Way	527	132	495	601	0.877	596	1252	109.3	92.1	609.547	F
	5 - Grovehurst Road	554	139	675	607	0.913	603	416	137.4	125.3	784.929	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.47	0.04	0.44	9.73	17.37			N/A	N/A
	2 - Grovehurst Road	1.61	0.04	0.37	4.16	7.95			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.15	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	2.31	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	4.17	0.03	0.32	6.60	21.33			N/A	N/A
	5 - Grovehurst Road	3.78	0.03	0.27	3.78	3.78			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	12.73	0.30	7.04	31.29	42.48			N/A	N/A
	2 - Grovehurst Road	5.87	0.10	2.04	15.57	22.49			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.66	0.07	1.07	3.72	5.16			N/A	N/A
	3 - A249 offslip (SB)	17.89	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	16.56	0.20	7.48	43.69	61.65			N/A	N/A
	5 - Grovehurst Road	19.22	0.09	3.86	56.07	87.72			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	57.67	24.64	54.02	88.69	100.65			N/A	N/A
	2 - Grovehurst Road	27.00	7.67	23.92	46.13	54.20			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.93	0.03	0.27	1.93	1.93			N/A	N/A
	3 - A249 offslip (SB)	70.98	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	59.47	21.42	54.63	96.66	111.52			N/A	N/A
	5 - Grovehurst Road	70.99	19.75	63.19	124.12	146.46			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	101.79	55.28	98.02	143.55	158.60			N/A	N/A
	2 - Grovehurst Road	47.28	18.70	43.84	74.40	85.05			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.30	1.22	1.68			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.97	0.03	0.26	1.97	1.97			N/A	N/A
	3 - A249 offslip (SB)	125.27	>199	>199	>199	>199			N/A	N/A



	4 - Swale Way	102.01	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	122.84	>199	>199	>199	>199			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	101.79	49.07	96.87	150.55	168.66			N/A	N/A
	2 - Grovehurst Road	43.44	12.35	38.66	75.00	88.24			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.98	0.16	1.05	3.75	4.82			N/A	N/A
	3 - A249 offslip (SB)	149.21	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	109.30	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	137.43	>199	>199	>199	>199			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	68.10	20.49	61.21	116.63	136.73			N/A	N/A
	2 - Grovehurst Road	25.71	1.95	19.15	54.71	69.33			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.97	0.41	1.26	3.19	3.91			N/A	N/A
	3 - A249 offslip (SB)	150.32	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	92.14	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	125.27	>199	>199	>199	>199			N/A	N/A

# 2024 + WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	391.89	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1921.53	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2024 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	901	100.000
	2 - Grovehurst Road		ONE HOUR	✓	235	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	483	100.000
	4 - Swale Way		ONE HOUR	✓	1295	100.000
	5 - Grovehurst Road		ONE HOUR	✓	595	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To
	1 - A249 offslip    2 - Grovehurst    3 - A249 onslip    4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	183	0	718
		2 - Grovehurst Road	0	0	27	208
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	264	542	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	45	0	0	483	393
		3 - A249 offslip (SB)	1	27	0	200	255
		4 - Swale Way	704	432	0	0	159
5 - Grovehurst Road	150	339	0	106	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	2	0	20
		2 - Grovehurst Road	0	0	0	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	0	3	0		

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	9	0	0	29	2
		3 - A249 offslip (SB)	0	11	0	8	3
		4 - Swale Way	19	3	0	0	3
5 - Grovehurst Road	1	2	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.35	701.55	156.3	200.0	F	827	1240
	2 - Grovehurst Road	0.52	14.89	1.1	3.5	B	216	323
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.38	3.62	0.6	2.2	A	543	815
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.47	3.90	0.9	1.5	A	777	1165
	3 - A249 offslip (SB)	0.72	17.21	2.5	11.3	C	443	665
	4 - Swale Way	2.47	4686.18	865.4	179.1	F	1188	1782
	5 - Grovehurst Road	0.92	49.16	8.3	43.8	E	546	819

## Main Results for each time segment

16:15 - 16:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	678	170	493	808	0.840	660	0	0.0	4.5	22.303	C
	2 - Grovehurst Road	177	44	857	584	0.303	175	295	0.0	0.4	8.760	A
	3 - A249 onslip (NB)			681				351				
	4 - B2005 - link	494	124	0	1590	0.311	493	681	0.0	0.4	3.273	A
2 - South	1 - A249 onslip (SB)			569				502				
	2 - B2005 - link	678	169	78	1749	0.388	675	490	0.0	0.6	3.347	A
	3 - A249 offslip (SB)	364	91	754	874	0.416	361	0	0.0	0.7	6.973	A
	4 - Swale Way	975	244	533	666	1.465	657	582	0.0	79.4	231.007	F
	5 - Grovehurst Road	448	112	631	678	0.660	441	559	0.0	1.9	14.712	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	810	202	535	778	1.040	751	0	4.5	19.3	72.587	F
	2 - Grovehurst Road	211	53	958	517	0.409	210	328	0.4	0.7	11.700	B
	3 - A249 onslip (NB)			784				384				
	4 - B2005 - link	536	134	0	1590	0.337	535	784	0.4	0.5	3.412	A
2 - South	1 - A249 onslip (SB)			626				507				
	2 - B2005 - link	779	195	94	1740	0.448	779	532	0.6	0.8	3.744	A
	3 - A249 offslip (SB)	434	109	873	777	0.559	432	0	0.7	1.2	10.358	B
	4 - Swale Way	1164	291	623	616	1.891	616	682	79.4	216.6	905.762	F
	5 - Grovehurst Road	535	134	603	697	0.767	530	636	1.9	3.0	20.915	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	992	248	590	741	1.338	740	0	19.3	82.3	259.419	F
	2 - Grovehurst Road	259	65	986	501	0.516	257	343	0.7	1.0	14.677	B
	3 - A249 onslip (NB)			817				426				
	4 - B2005 - link	590	148	0	1590	0.371	590	817	0.5	0.6	3.598	A
2 - South	1 - A249 onslip (SB)			699				515				
	2 - B2005 - link	807	202	114	1729	0.467	807	586	0.8	0.9	3.901	A
	3 - A249 offslip (SB)	532	133	920	740	0.719	527	0	1.2	2.4	16.539	C
	4 - Swale Way	1426	356	692	577	2.469	577	755	216.6	428.7	2013.446	F
	5 - Grovehurst Road	655	164	576	716	0.915	638	693	3.0	7.2	39.489	E

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	992	248	597	736	1.347	736	0	82.3	146.2	557.728	F
	2 - Grovehurst Road	259	65	988	500	0.517	259	345	1.0	1.1	14.893	B
	3 - A249 onslip (NB)			816				431				
	4 - B2005 - link	597	149	0	1590	0.375	597	816	0.6	0.6	3.623	A
2 - South	1 - A249 onslip (SB)			709				518				
	2 - B2005 - link	805	201	116	1728	0.466	805	593	0.9	0.9	3.899	A
	3 - A249 offslip (SB)	532	133	921	740	0.719	532	0	2.4	2.5	17.205	C
	4 - Swale Way	1426	356	694	576	2.474	576	758	428.7	641.0	3163.521	F
	5 - Grovehurst Road	655	164	576	716	0.915	651	695	7.2	8.3	49.162	E

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	810	202	548	770	1.052	770	0	146.2	156.3	701.545	F
	2 - Grovehurst Road	211	53	982	502	0.421	212	336	1.1	0.7	12.506	B
	3 - A249 onslip (NB)			801				393				
	4 - B2005 - link	547	137	0	1590	0.344	548	801	0.6	0.5	3.452	A
2 - South	1 - A249 onslip (SB)			642				510				
	2 - B2005 - link	796	199	99	1737	0.458	796	543	0.9	0.9	3.825	A
	3 - A249 offslip (SB)	434	109	895	760	0.572	439	0	2.5	1.4	11.369	B
	4 - Swale Way	1164	291	636	609	1.912	609	698	641.0	779.9	4082.153	F
	5 - Grovehurst Road	535	134	598	701	0.763	554	646	8.3	3.5	27.044	D

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	678	170	494	806	0.841	801	0	156.3	125.6	634.060	F
	2 - Grovehurst Road	177	44	971	505	0.350	178	325	0.7	0.5	11.014	B
	3 - A249 onslip (NB)			796				353				
	4 - B2005 - link	494	124	0	1590	0.311	494	796	0.5	0.5	3.285	A
2 - South	1 - A249 onslip (SB)			571				498				
	2 - B2005 - link	795	199	81	1747	0.455	795	490	0.9	0.8	3.784	A
	3 - A249 offslip (SB)	364	91	876	773	0.470	366	0	1.4	0.9	8.866	A
	4 - Swale Way	975	244	592	633	1.541	633	649	779.9	865.4	4686.175	F
	5 - Grovehurst Road	448	112	615	689	0.650	454	610	3.5	1.9	15.719	C

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.48	0.03	0.34	9.20	24.23			N/A	N/A
	2 - Grovehurst Road	0.43	0.00	0.00	0.43	0.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.63	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.70	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	79.39	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.85	0.71	1.39	1.99	2.45			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	19.28	0.40	10.87	47.70	64.71			N/A	N/A
	2 - Grovehurst Road	0.68	0.24	0.94	1.39	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.22	0.94	1.40	1.46			N/A	N/A
	3 - A249 offslip (SB)	1.23	0.08	0.99	2.34	3.06			N/A	N/A
	4 - Swale Way	216.55	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.02	0.10	1.21	7.21	10.02			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	82.28	39.86	78.27	121.28	135.79			N/A	N/A
	2 - Grovehurst Road	1.03	0.03	0.27	1.03	1.12			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.25	0.59	0.59			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.87	0.03	0.25	0.87	0.87			N/A	N/A
	3 - A249 offslip (SB)	2.40	0.03	0.30	2.74	11.25			N/A	N/A
	4 - Swale Way	428.66	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	7.25	0.07	1.19	20.74	32.51			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	146.23	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.05	0.03	0.28	1.05	3.53			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.03	0.28	0.69	2.25			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.87	0.03	0.26	0.87	0.87			N/A	N/A
	3 - A249 offslip (SB)	2.47	0.03	0.28	2.47	7.58			N/A	N/A

	4 - Swale Way	641.01	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	8.34	0.05	0.47	23.50	43.78			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	156.32	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.74	0.08	0.79	1.08	1.08			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.37	0.06	0.73	3.18	4.67			N/A	N/A
	4 - Swale Way	779.86	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.53	0.04	0.43	9.78	17.95			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	125.59	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.55	0.05	0.47	1.32	1.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.90	0.04	0.41	2.11	3.47			N/A	N/A
	4 - Swale Way	865.40	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.94	0.03	0.34	4.37	10.18			N/A	N/A

# 2024 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	333.48	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	542.52	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	914	100.000
	2 - Grovehurst Road		ONE HOUR	✓	446	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	593	100.000
	4 - Swale Way		ONE HOUR	✓	703	100.000
	5 - Grovehurst Road		ONE HOUR	✓	736	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	45	0	869
		2 - Grovehurst Road	0	0	25	421
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	151	366	0

## Demand (Veh/hr)

2 - South	From		To				
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	144	0	0	918	225
		3 - A249 offslip (SB)	1	18	0	377	197
		4 - Swale Way	400	226	0	0	77
5 - Grovehurst Road	287	277	0	172	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From		To			
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	13	0	18
		2 - Grovehurst Road	0	0	8	4
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	4	6	0		

## Heavy Vehicle Percentages

2 - South	From		To				
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	2	0	0	17	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	41	10	0	0	9
5 - Grovehurst Road	1	1	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.21	448.13	102.3	169.3	F	839	1258
	2 - Grovehurst Road	1.19	411.69	47.3	88.8	F	409	614
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.28	3.25	0.4	1.7	A	421	632
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.14	2.0	5.2	A	1124	1685
	3 - A249 offslip (SB)	1.50	1237.30	151.3	186.5	F	544	816
	4 - Swale Way	1.29	673.04	114.6	185.0	F	645	968
	5 - Grovehurst Road	1.34	791.02	138.2	200.0	F	675	1013

## Main Results for each time segment

07:15 - 07:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay



Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	688	172	378	867	0.794	674	0	0.0	3.5	17.610	C
	2 - Grovehurst Road	336	84	909	533	0.631	329	144	0.0	1.6	17.216	C
	3 - A249 onslip (NB)			952				286				
	4 - B2005 - link	379	95	0	1539	0.246	378	952	0.0	0.3	3.098	A
2 - South	1 - A249 onslip (SB)			506				608				
	2 - B2005 - link	952	238	126	1769	0.538	947	381	0.0	1.2	4.355	A
	3 - A249 offslip (SB)	446	112	1073	626	0.714	437	0	0.0	2.3	18.317	C
	4 - Swale Way	529	132	431	630	0.840	512	1080	0.0	4.3	27.494	D
	5 - Grovehurst Road	554	139	576	679	0.817	539	367	0.0	3.9	23.667	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	822	205	424	834	0.985	784	0	3.5	12.8	50.777	F
	2 - Grovehurst Road	401	100	1046	443	0.906	384	163	1.6	5.9	50.860	F
	3 - A249 onslip (NB)			1108				322				
	4 - B2005 - link	424	106	0	1539	0.276	424	1108	0.3	0.4	3.229	A
2 - South	1 - A249 onslip (SB)			566				687				
	2 - B2005 - link	1108	277	140	1761	0.629	1106	426	1.2	1.7	5.477	A
	3 - A249 offslip (SB)	533	133	1246	490	1.088	470	0	2.3	18.1	99.097	F
	4 - Swale Way	632	158	488	602	1.050	579	1228	4.3	17.6	86.034	F
	5 - Grovehurst Road	662	165	654	620	1.067	599	413	3.9	19.6	88.335	F

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1006	252	431	830	1.213	826	0	12.8	58.0	167.385	F
	2 - Grovehurst Road	491	123	1090	413	1.188	406	166	5.9	27.0	168.020	F
	3 - A249 onslip (NB)			1169				328				
	4 - B2005 - link	431	108	0	1539	0.280	431	1169	0.4	0.4	3.247	A
2 - South	1 - A249 onslip (SB)			573				706				
	2 - B2005 - link	1169	292	141	1761	0.664	1168	432	1.7	1.9	6.057	A
	3 - A249 offslip (SB)	653	163	1309	440	1.482	440	0	18.1	71.4	384.320	F
	4 - Swale Way	774	194	495	598	1.293	597	1253	17.6	61.9	254.538	F
	5 - Grovehurst Road	810	203	676	604	1.342	603	416	19.6	71.5	286.027	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1006	252	431	830	1.213	829	0	58.0	102.3	357.160	F
	2 - Grovehurst Road	491	123	1093	411	1.194	410	167	27.0	47.3	343.224	F
	3 - A249 onslip (NB)			1175				328				
	4 - B2005 - link	431	108	0	1539	0.280	431	1175	0.4	0.4	3.248	A
2 - South	1 - A249 onslip (SB)			573				707				
	2 - B2005 - link	1175	294	141	1761	0.667	1175	432	1.9	2.0	6.139	A
	3 - A249 offslip (SB)	653	163	1316	435	1.501	435	0	71.4	125.9	827.196	F
	4 - Swale Way	774	194	495	598	1.294	598	1255	61.9	106.0	516.220	F
	5 - Grovehurst Road	810	203	678	603	1.345	602	415	71.5	123.5	592.615	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	822	205	431	830	0.990	822	0	102.3	102.3	448.127	F
	2 - Grovehurst Road	401	100	1086	416	0.964	415	166	47.3	43.9	411.693	F
	3 - A249 onslip (NB)			1173				328				
	4 - B2005 - link	431	108	0	1539	0.280	431	1173	0.4	0.4	3.248	A
2 - South	1 - A249 onslip (SB)			573				707				
	2 - B2005 - link	1172	293	141	1761	0.666	1172	432	2.0	2.0	6.112	A
	3 - A249 offslip (SB)	533	133	1313	437	1.219	437	0	125.9	149.9	1144.636	F
	4 - Swale Way	632	158	495	598	1.056	598	1255	106.0	114.6	673.039	F
	5 - Grovehurst Road	662	165	677	603	1.097	603	416	123.5	138.2	788.340	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	688	172	430	831	0.828	823	0	102.3	68.7	375.586	F
	2 - Grovehurst Road	336	84	1086	416	0.807	407	166	43.9	26.2	314.387	F
	3 - A249 onslip (NB)			1166				327				
	4 - B2005 - link	430	107	0	1539	0.279	430	1166	0.4	0.4	3.243	A
2 - South	1 - A249 onslip (SB)			571				704				
	2 - B2005 - link	1166	292	141	1761	0.662	1166	431	2.0	2.0	6.055	A
	3 - A249 offslip (SB)	446	112	1307	442	1.010	441	0	149.9	151.3	1237.298	F
	4 - Swale Way	529	132	495	598	0.884	593	1253	114.6	98.6	647.529	F
	5 - Grovehurst Road	554	139	673	606	0.914	602	415	138.2	126.2	791.020	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.50	0.04	0.44	9.81	17.53			N/A	N/A
	2 - Grovehurst Road	1.62	0.04	0.37	4.16	7.99			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.15	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	2.32	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	4.34	0.03	0.31	5.44	20.89			N/A	N/A
	5 - Grovehurst Road	3.85	0.03	0.27	3.85	3.85			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	12.84	0.31	7.13	31.52	42.76			N/A	N/A
	2 - Grovehurst Road	5.90	0.10	2.04	15.64	22.61			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.67	0.07	1.07	3.73	5.19			N/A	N/A
	3 - A249 offslip (SB)	18.08	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	17.59	0.19	7.51	47.01	66.90			N/A	N/A
	5 - Grovehurst Road	19.59	0.09	3.99	57.10	89.18			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	57.98	24.83	54.32	89.08	101.05			N/A	N/A
	2 - Grovehurst Road	27.05	7.68	23.95	46.22	54.30			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.94	0.03	0.27	1.94	1.94			N/A	N/A
	3 - A249 offslip (SB)	71.41	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	61.95	21.59	56.69	101.72	117.72			N/A	N/A
	5 - Grovehurst Road	71.52	19.73	63.59	125.34	148.02			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	102.31	55.67	98.53	144.12	159.17			N/A	N/A
	2 - Grovehurst Road	47.35	18.73	43.90	74.50	85.16			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.30	1.22	1.66			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.98	0.03	0.26	1.98	1.98			N/A	N/A
	3 - A249 offslip (SB)	125.94	>199	>199	>199	>199			N/A	N/A

	<b>4 - Swale Way</b>	105.98	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	123.50	>199	>199	>199	>199			N/A	N/A

**08:15 - 08:30**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	102.31	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	43.91	12.68	39.16	75.56	88.80			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.39	0.00	0.00	0.39	0.39			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	1.98	0.16	1.04	3.77	4.84			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	149.95	>199	>199	>199	>199			N/A	N/A
	<b>4 - Swale Way</b>	114.58	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	138.23	>199	>199	>199	>199			N/A	N/A

**08:30 - 08:45**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	68.65	20.77	61.75	117.36	137.47			N/A	N/A
	<b>2 - Grovehurst Road</b>	26.19	2.10	19.65	55.41	70.04			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.39	0.00	0.00	0.39	0.39			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	1.97	0.40	1.26	3.22	3.93			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	151.29	>199	>199	>199	>199			N/A	N/A
	<b>4 - Swale Way</b>	98.59	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	126.23	>199	>199	>199	>199			N/A	N/A

# 2024 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	410.85	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1930.73	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	903	100.000
	2 - Grovehurst Road		ONE HOUR	✓	235	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	482	100.000
	4 - Swale Way		ONE HOUR	✓	1298	100.000
	5 - Grovehurst Road		ONE HOUR	✓	595	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	183	0	720
		2 - Grovehurst Road	0	0	27	208
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	264	542	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	45	0	0	486	393
		3 - A249 offslip (SB)	1	27	0	199	255
		4 - Swale Way	706	433	0	0	159
5 - Grovehurst Road	150	339	0	106	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	2	0	21
		2 - Grovehurst Road	0	0	0	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	0	3	0		

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	9	0	0	29	2
		3 - A249 offslip (SB)	0	11	0	8	3
		4 - Swale Way	19	3	0	0	3
5 - Grovehurst Road	1	2	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.36	732.82	163.1	200.0	F	829	1243
	2 - Grovehurst Road	0.52	14.94	1.1	3.5	B	216	323
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.38	3.62	0.6	2.2	A	543	815
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.47	3.91	0.9	1.5	A	779	1168
	3 - A249 offslip (SB)	0.72	17.19	2.5	11.2	C	442	663
	4 - Swale Way	2.48	4704.58	869.3	179.0	F	1191	1787
	5 - Grovehurst Road	0.92	49.32	8.4	43.9	E	546	819

## Main Results for each time segment

16:15 - 16:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	680	170	492	802	0.847	661	0	0.0	4.7	23.121	C
	2 - Grovehurst Road	177	44	858	581	0.305	175	295	0.0	0.4	8.838	A
	3 - A249 onslip (NB)			682				351				
	4 - B2005 - link	494	124	0	1590	0.311	492	682	0.0	0.4	3.272	A
2 - South	1 - A249 onslip (SB)			569				502				
	2 - B2005 - link	683	171	78	1748	0.391	680	490	0.0	0.6	3.363	A
	3 - A249 offslip (SB)	363	91	759	870	0.417	360	0	0.0	0.7	7.023	A
	4 - Swale Way	977	244	534	665	1.470	657	585	0.0	80.1	233.254	F
	5 - Grovehurst Road	448	112	630	679	0.660	441	560	0.0	1.9	14.701	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	812	203	535	773	1.050	748	0	4.7	20.6	76.658	F
	2 - Grovehurst Road	211	53	957	515	0.410	210	327	0.4	0.7	11.784	B
	3 - A249 onslip (NB)			783				384				
	4 - B2005 - link	536	134	0	1590	0.337	535	783	0.4	0.5	3.412	A
2 - South	1 - A249 onslip (SB)			626				507				
	2 - B2005 - link	782	196	94	1739	0.450	782	532	0.6	0.8	3.758	A
	3 - A249 offslip (SB)	433	108	876	775	0.559	431	0	0.7	1.2	10.412	B
	4 - Swale Way	1167	292	624	615	1.896	615	684	80.1	218.0	912.232	F
	5 - Grovehurst Road	535	134	603	697	0.767	530	636	1.9	3.0	20.920	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	994	249	590	736	1.350	735	0	20.6	85.4	271.835	F
	2 - Grovehurst Road	259	65	983	500	0.517	257	342	0.7	1.0	14.731	B
	3 - A249 onslip (NB)			814				426				
	4 - B2005 - link	590	148	0	1590	0.371	590	814	0.5	0.6	3.598	A
2 - South	1 - A249 onslip (SB)			699				516				
	2 - B2005 - link	808	202	114	1728	0.467	808	586	0.8	0.9	3.908	A
	3 - A249 offslip (SB)	531	133	921	739	0.718	526	0	1.2	2.4	16.539	C
	4 - Swale Way	1429	357	692	578	2.474	578	756	218.0	430.8	2023.244	F
	5 - Grovehurst Road	655	164	577	715	0.916	638	693	3.0	7.3	39.574	E

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	994	249	597	731	1.360	731	0	85.4	151.2	580.757	F
	2 - Grovehurst Road	259	65	985	499	0.518	259	344	1.0	1.1	14.943	B
	3 - A249 onslip (NB)			812				431				
	4 - B2005 - link	597	149	0	1590	0.376	597	812	0.6	0.6	3.624	A
2 - South	1 - A249 onslip (SB)			709				518				
	2 - B2005 - link	806	201	116	1727	0.466	806	593	0.9	0.9	3.906	A
	3 - A249 offslip (SB)	531	133	922	739	0.718	530	0	2.4	2.5	17.190	C
	4 - Swale Way	1429	357	693	577	2.477	577	759	430.8	643.9	3175.972	F
	5 - Grovehurst Road	655	164	576	716	0.915	651	694	7.3	8.4	49.325	E

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	812	203	548	765	1.062	764	0	151.2	163.1	732.823	F
	2 - Grovehurst Road	211	53	978	501	0.422	213	334	1.1	0.7	12.548	B
	3 - A249 onslip (NB)			797				393				
	4 - B2005 - link	548	137	0	1590	0.344	548	797	0.6	0.5	3.456	A
2 - South	1 - A249 onslip (SB)			642				511				
	2 - B2005 - link	797	199	99	1737	0.459	797	543	0.9	0.9	3.834	A
	3 - A249 offslip (SB)	433	108	896	759	0.571	438	0	2.5	1.4	11.368	B
	4 - Swale Way	1167	292	635	609	1.915	609	699	643.9	783.3	4097.854	F
	5 - Grovehurst Road	535	134	599	700	0.764	554	645	8.4	3.5	27.127	D

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	680	170	495	801	0.849	796	0	163.1	134.0	672.600	F
	2 - Grovehurst Road	177	44	967	504	0.351	178	323	0.7	0.5	11.045	B
	3 - A249 onslip (NB)			792				353				
	4 - B2005 - link	494	124	0	1590	0.311	495	792	0.5	0.5	3.285	A
2 - South	1 - A249 onslip (SB)			571				498				
	2 - B2005 - link	797	199	81	1747	0.456	797	490	0.9	0.8	3.788	A
	3 - A249 offslip (SB)	363	91	877	772	0.470	365	0	1.4	0.9	8.874	A
	4 - Swale Way	977	244	592	633	1.543	633	650	783.3	869.3	4704.584	F
	5 - Grovehurst Road	448	112	616	689	0.650	454	609	3.5	1.9	15.742	C

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.68	0.03	0.33	8.54	24.81			N/A	N/A
	2 - Grovehurst Road	0.43	0.00	0.00	0.43	0.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.64	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.71	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	80.12	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.85	0.71	1.39	1.99	2.45			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	20.60	0.40	11.50	51.19	69.57			N/A	N/A
	2 - Grovehurst Road	0.68	0.25	0.94	1.39	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.22	0.94	1.40	1.46			N/A	N/A
	3 - A249 offslip (SB)	1.24	0.08	0.99	2.35	3.06			N/A	N/A
	4 - Swale Way	218.00	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.02	0.10	1.21	7.21	10.02			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	85.40	40.94	81.16	126.41	141.69			N/A	N/A
	2 - Grovehurst Road	1.04	0.03	0.27	1.04	1.17			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.25	0.59	0.59			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.87	0.03	0.25	0.87	0.87			N/A	N/A
	3 - A249 offslip (SB)	2.40	0.03	0.30	2.72	11.21			N/A	N/A
	4 - Swale Way	430.84	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	7.26	0.07	1.21	20.78	32.54			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	151.18	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.06	0.03	0.28	1.06	3.52			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.03	0.28	0.70	2.25			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.87	0.03	0.26	0.87	0.87			N/A	N/A
	3 - A249 offslip (SB)	2.47	0.03	0.28	2.47	7.52			N/A	N/A

	4 - Swale Way	643.90	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	8.36	0.05	0.47	23.60	43.87			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	163.05	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.75	0.08	0.79	1.13	1.13			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.37	0.06	0.73	3.17	4.67			N/A	N/A
	4 - Swale Way	783.33	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.54	0.04	0.43	9.81	17.98			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	134.04	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.55	0.05	0.47	1.32	1.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.90	0.04	0.41	2.11	3.47			N/A	N/A
	4 - Swale Way	869.34	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.94	0.03	0.34	4.38	10.20			N/A	N/A



# 2031, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	230.50	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	363.86	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	861	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	689	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	819
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	147	327	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	141	0	0	908	183
	3 - A249 offslip (SB)	1	18	0	377	174
	4 - Swale Way	386	226	0	0	77
	5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	7	0	18
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	7	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	16	6
	3 - A249 offslip (SB)	0	6	0	9	4
	4 - Swale Way	38	10	0	0	9
	5 - Grovehurst Road	1	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.15	298.81	72.4	124.5	F	790	1185
	2 - Grovehurst Road	1.16	320.92	39.1	75.6	F	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.29	3.31	0.4	1.7	A	420	629
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.18	2.0	4.8	A	1113	1669
	3 - A249 offslip (SB)	1.49	1124.24	133.6	200.0	F	523	785
	4 - Swale Way	1.20	438.92	76.2	133.4	F	632	948
	5 - Grovehurst Road	1.15	297.54	51.7	95.0	F	561	841

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	648	162	350	887	0.731	638	0	0.0	2.6	13.956	B
	2 - Grovehurst Road	331	83	848	575	0.576	326	140	0.0	1.3	14.189	B

	3 - A249 onslip (NB)			914				260				
	4 - B2005 - link	351	88	0	1530	0.230	350	914	0.0	0.3	3.049	A
2 - South	1 - A249 onslip (SB)			479				541				
	2 - B2005 - link	917	229	127	1780	0.515	912	352	0.0	1.1	4.130	A
	3 - A249 offslip (SB)	429	107	1040	656	0.654	422	0	0.0	1.8	14.961	B
	4 - Swale Way	519	130	383	665	0.781	506	1079	0.0	3.2	21.269	C
	5 - Grovehurst Road	460	115	568	688	0.669	452	321	0.0	1.9	14.830	B

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	774	194	411	844	0.917	754	0	2.6	7.6	34.112	D
	2 - Grovehurst Road	396	99	1001	475	0.834	385	164	1.3	4.0	36.398	E
	3 - A249 onslip (NB)			1080				305				
	4 - B2005 - link	411	103	0	1530	0.269	411	1080	0.3	0.4	3.217	A
2 - South	1 - A249 onslip (SB)			562				635				
	2 - B2005 - link	1083	271	150	1767	0.613	1081	412	1.1	1.6	5.233	A
	3 - A249 offslip (SB)	512	128	1231	507	1.010	473	0	1.8	11.7	70.796	F
	4 - Swale Way	619	155	444	634	0.977	589	1259	3.2	10.7	57.599	F
	5 - Grovehurst Road	549	137	663	618	0.888	534	371	1.9	5.8	37.145	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	948	237	438	825	1.149	816	0	7.6	40.7	120.890	F
	2 - Grovehurst Road	484	121	1078	423	1.144	412	176	4.0	22.1	136.026	F
	3 - A249 onslip (NB)			1165				326				
	4 - B2005 - link	439	110	0	1530	0.287	438	1165	0.4	0.4	3.298	A
2 - South	1 - A249 onslip (SB)			602				680				
	2 - B2005 - link	1168	292	163	1759	0.664	1166	439	1.6	1.9	6.054	A
	3 - A249 offslip (SB)	628	157	1329	431	1.456	430	0	11.7	61.2	325.375	F
	4 - Swale Way	759	190	452	630	1.203	626	1306	10.7	43.9	173.251	F
	5 - Grovehurst Road	673	168	704	589	1.143	578	374	5.8	29.4	127.531	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	948	237	441	823	1.152	821	0	40.7	72.4	258.356	F
	2 - Grovehurst Road	484	121	1085	419	1.157	416	177	22.1	39.1	281.933	F
	3 - A249 onslip (NB)			1174				328				
	4 - B2005 - link	441	110	0	1530	0.289	441	1174	0.4	0.4	3.307	A
2 - South	1 - A249 onslip (SB)			607				685				
	2 - B2005 - link	1177	294	164	1759	0.669	1176	442	1.9	2.0	6.182	A
	3 - A249 offslip (SB)	628	157	1341	422	1.487	422	0	61.2	112.7	749.218	F
	4 - Swale Way	759	190	452	630	1.203	630	1310	43.9	76.2	355.285	F
	5 - Grovehurst Road	673	168	708	585	1.149	583	374	29.4	51.7	263.771	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	774	194	438	825	0.938	814	0	72.4	62.4	298.814	F
	2 - Grovehurst Road	396	99	1076	425	0.931	414	175	39.1	34.5	320.919	F
	3 - A249 onslip (NB)			1165				325				
	4 - B2005 - link	438	109	0	1530	0.286	438	1165	0.4	0.4	3.296	A
2 - South	1 - A249 onslip (SB)			602				678				
	2 - B2005 - link	1168	292	163	1759	0.664	1168	439	2.0	2.0	6.093	A
	3 - A249 offslip (SB)	512	128	1331	429	1.194	429	0	112.7	133.5	1043.421	F
	4 - Swale Way	619	155	452	630	0.983	621	1308	76.2	75.8	438.925	F
	5 - Grovehurst Road	549	137	699	592	0.928	581	374	51.7	43.9	297.536	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	648	162	437	826	0.785	813	0	62.4	21.3	190.054	F

1 - North	2 - Grovehurst Road	331	83	1075	426	0.778	414	175	34.5	13.8	217.566	F
	3 - A249 onslip (NB)			1163				325				
	4 - B2005 - link	437	109	0	1530	0.286	437	1163	0.4	0.4	3.294	A
2 - South	1 - A249 onslip (SB)			601				678				
	2 - B2005 - link	1166	292	163	1759	0.663	1166	438	2.0	2.0	6.069	A
	3 - A249 offslip (SB)	429	107	1329	431	0.995	429	0	133.5	133.6	1124.245	F
	4 - Swale Way	519	130	452	631	0.823	622	1306	75.8	49.9	365.912	F
	5 - Grovehurst Road	460	115	701	591	0.778	578	374	43.9	14.4	188.251	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.56	0.08	1.39	6.17	8.72			N/A	N/A
	2 - Grovehurst Road	1.31	0.05	0.47	3.26	5.06			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.05	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.80	0.03	0.25	1.80	1.80			N/A	N/A
	4 - Swale Way	3.19	0.05	0.48	8.95	15.16			N/A	N/A
	5 - Grovehurst Road	1.92	0.07	1.05	4.61	6.61			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	7.56	0.18	3.70	18.85	26.00			N/A	N/A
	2 - Grovehurst Road	4.02	0.08	1.00	10.77	15.94			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.37	0.00	0.00	0.37	0.37			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.56	0.07	1.00	3.48	4.84			N/A	N/A
	3 - A249 offslip (SB)	11.71	0.03	0.29	11.71	30.43			N/A	N/A
	4 - Swale Way	10.72	0.27	5.88	26.23	35.61			N/A	N/A
	5 - Grovehurst Road	5.78	0.13	2.53	14.61	20.46			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	40.67	14.36	37.17	66.11	76.36			N/A	N/A
	2 - Grovehurst Road	22.06	5.24	19.05	39.06	46.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.94	0.03	0.27	1.94	1.94			N/A	N/A
	3 - A249 offslip (SB)	61.23	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	43.93	16.53	40.47	70.12	80.52			N/A	N/A
	5 - Grovehurst Road	29.38	8.53	26.13	50.05	58.74			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	72.41	32.12	68.20	110.15	124.52			N/A	N/A
	2 - Grovehurst Road	39.11	12.75	35.37	64.98	75.56			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.30	1.27	1.71			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.03	0.26	1.99	1.99			N/A	N/A
	3 - A249 offslip (SB)	112.67	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	76.20	37.35	72.55	111.74	124.92			N/A	N/A
	5 - Grovehurst Road	51.72	19.46	47.71	82.76	95.05			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	62.40	22.68	57.39	101.18	116.63			N/A	N/A
	2 - Grovehurst Road	34.48	7.79	29.72	62.55	74.83			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.20	1.13	3.63	4.61			N/A	N/A
	3 - A249 offslip (SB)	133.50	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	75.85	32.04	71.07	117.42	133.42			N/A	N/A
	5 - Grovehurst Road	43.88	12.34	38.99	76.00	89.52			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	21.30	2.78	17.01	41.96	51.74			N/A	N/A
	2 - Grovehurst Road	13.85	0.88	9.44	30.72	39.75			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.98	0.52	1.31	3.04	3.78			N/A	N/A
	3 - A249 offslip (SB)	133.58	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	49.93	11.34	43.18	91.08	109.02			N/A	N/A
	5 - Grovehurst Road	14.44	0.97	9.96	31.84	41.11			N/A	N/A

# 2031, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	239.33	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1633.71	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	825	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	443	100.000
	4 - Swale Way		ONE HOUR	✓	1276	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	645
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	262	522	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	477	322
	3 - A249 offslip (SB)	1	27	0	199	216
	4 - Swale Way	685	432	0	0	159
	5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	21
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	4	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	28	1
	3 - A249 offslip (SB)	0	11	0	8	4
	4 - Swale Way	18	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.24	441.17	97.1	150.6	F	757	1136
	2 - Grovehurst Road	0.49	13.73	0.9	3.5	B	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.64	0.6	2.2	A	541	811
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.46	3.82	0.8	1.5	A	748	1122
	3 - A249 offslip (SB)	0.65	13.74	1.8	5.6	B	407	610
	4 - Swale Way	2.24	3878.15	764.7	180.1	F	1171	1756
	5 - Grovehurst Road	0.85	33.36	5.1	27.5	D	490	735

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	621	155	494	803	0.774	609	0	0.0	3.1	17.560	C
	2 - Grovehurst Road	171	43	804	622	0.275	169	298	0.0	0.4	7.930	A

	3 - A249 onslip (NB)			625				349				
	4 - B2005 - link	495	124	0	1580	0.314	494	625	0.0	0.5	3.307	A
2 - South	1 - A249 onslip (SB)			573				492				
	2 - B2005 - link	624	156	79	1751	0.357	622	495	0.0	0.6	3.185	A
	3 - A249 offslip (SB)	334	83	701	913	0.365	331	0	0.0	0.6	6.167	A
	4 - Swale Way	961	240	452	716	1.342	705	580	0.0	64.0	175.209	F
	5 - Grovehurst Road	402	101	669	657	0.612	396	488	0.0	1.5	13.495	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	742	185	535	774	0.958	714	0	3.1	10.1	45.822	E
	2 - Grovehurst Road	204	51	914	547	0.373	203	335	0.4	0.6	10.456	B
	3 - A249 onslip (NB)			737				380				
	4 - B2005 - link	535	134	0	1580	0.339	535	737	0.5	0.5	3.444	A
2 - South	1 - A249 onslip (SB)			629				495				
	2 - B2005 - link	736	184	95	1742	0.422	735	534	0.6	0.7	3.575	A
	3 - A249 offslip (SB)	398	100	830	808	0.493	397	0	0.6	1.0	8.710	A
	4 - Swale Way	1147	287	537	669	1.715	669	690	64.0	183.6	695.260	F
	5 - Grovehurst Road	480	120	647	672	0.714	477	558	1.5	2.3	18.086	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	908	227	588	739	1.230	734	0	10.1	53.6	170.395	F
	2 - Grovehurst Road	250	62	965	514	0.486	249	357	0.6	0.9	13.484	B
	3 - A249 onslip (NB)			793				421				
	4 - B2005 - link	588	147	0	1580	0.372	588	793	0.5	0.6	3.626	A
2 - South	1 - A249 onslip (SB)			702				497				
	2 - B2005 - link	787	197	115	1730	0.455	787	587	0.7	0.8	3.811	A
	3 - A249 offslip (SB)	488	122	901	752	0.649	484	0	1.0	1.8	13.309	B
	4 - Swale Way	1405	351	607	629	2.232	629	779	183.6	377.4	1610.749	F
	5 - Grovehurst Road	588	147	621	690	0.852	578	616	2.3	4.8	29.738	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	908	227	592	735	1.235	735	0	53.6	97.1	374.287	F
	2 - Grovehurst Road	250	62	969	512	0.488	250	358	0.9	0.9	13.729	B
	3 - A249 onslip (NB)			794				424				
	4 - B2005 - link	592	148	0	1580	0.375	592	794	0.6	0.6	3.643	A
2 - South	1 - A249 onslip (SB)			708				498				
	2 - B2005 - link	788	197	116	1730	0.456	788	592	0.8	0.8	3.823	A
	3 - A249 offslip (SB)	488	122	905	749	0.651	488	0	1.8	1.8	13.744	B
	4 - Swale Way	1405	351	610	628	2.237	628	783	377.4	571.6	2619.250	F
	5 - Grovehurst Road	588	147	620	691	0.851	586	618	4.8	5.1	33.356	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	742	185	540	771	0.962	763	0	97.1	91.7	441.169	F
	2 - Grovehurst Road	204	51	956	517	0.394	205	347	0.9	0.7	11.575	B
	3 - A249 onslip (NB)			777				384				
	4 - B2005 - link	540	135	0	1580	0.342	540	777	0.6	0.5	3.463	A
2 - South	1 - A249 onslip (SB)			636				494				
	2 - B2005 - link	777	194	97	1740	0.447	777	539	0.8	0.8	3.738	A
	3 - A249 offslip (SB)	398	100	875	772	0.516	401	0	1.8	1.1	9.788	A
	4 - Swale Way	1147	287	557	657	1.745	657	718	571.6	694.0	3393.157	F
	5 - Grovehurst Road	480	120	640	677	0.709	490	575	5.1	2.6	20.163	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	621	155	493	803	0.773	795	0	91.7	48.3	319.637	F



1 - North	2 - Grovehurst Road	171	43	949	519	0.329	172	338	0.7	0.5	10.382	B
	3 - A249 onslip (NB)			772				349				
	4 - B2005 - link	493	123	0	1580	0.312	493	772	0.5	0.5	3.313	A
2 - South	1 - A249 onslip (SB)			572				487				
	2 - B2005 - link	777	194	81	1750	0.444	777	492	0.8	0.8	3.701	A
	3 - A249 offslip (SB)	334	83	858	784	0.425	335	0	1.1	0.8	8.036	A
	4 - Swale Way	961	240	521	678	1.417	678	672	694.0	764.7	3878.150	F
	5 - Grovehurst Road	402	101	654	668	0.602	406	545	2.6	1.6	13.957	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.13	0.06	1.01	8.53	13.10			N/A	N/A
	2 - Grovehurst Road	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.55	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.57	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	63.98	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.52	1.05	1.50	1.90	1.95			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.06	0.27	5.54	24.49	33.18			N/A	N/A
	2 - Grovehurst Road	0.59	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.73	0.20	0.93	1.39	1.44			N/A	N/A
	3 - A249 offslip (SB)	0.95	0.09	0.91	1.52	1.86			N/A	N/A
	4 - Swale Way	183.59	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.35	0.09	1.42	5.37	7.41			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	53.62	24.35	50.53	80.58	90.81			N/A	N/A
	2 - Grovehurst Road	0.92	0.03	0.26	0.92	0.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.25	0.59	0.59			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.83	0.03	0.25	0.83	0.83			N/A	N/A
	3 - A249 offslip (SB)	1.78	0.03	0.28	1.78	5.64			N/A	N/A
	4 - Swale Way	377.44	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.77	0.04	0.44	13.24	24.65			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	97.05	54.43	93.72	134.93	148.46			N/A	N/A
	2 - Grovehurst Road	0.94	0.03	0.28	0.94	3.51			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.03	0.28	0.63	2.18			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.83	0.03	0.26	0.83	0.94			N/A	N/A
	3 - A249 offslip (SB)	1.82	0.03	0.28	1.82	4.50			N/A	N/A
	4 - Swale Way	571.64	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.14	0.03	0.34	9.82	27.52			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	91.68	44.94	87.37	134.67	150.60			N/A	N/A
	2 - Grovehurst Road	0.66	0.08	0.79	1.37	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.09	0.08	0.91	1.93	2.67			N/A	N/A
	4 - Swale Way	694.04	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.59	0.04	0.43	7.12	12.67			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	48.31	15.65	43.74	80.71	93.96			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.44	1.27	1.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.46	0.00	0.00	0.46	0.46			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.80	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.75	0.05	0.48	1.45	1.96			N/A	N/A
	4 - Swale Way	764.68	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.57	0.03	0.35	3.81	8.01			N/A	N/A

# 2031 + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	1282.10	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1003.02	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D21	2031 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1107	100.000
	2 - Grovehurst Road		ONE HOUR	✓	737	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	620	100.000
	4 - Swale Way		ONE HOUR	✓	766	100.000
	5 - Grovehurst Road		ONE HOUR	✓	775	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	123	0	984
		2 - Grovehurst Road	0	0	38	699
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	159	403	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	419	0	0	1031	231
	3 - A249 offslip (SB)	1	22	0	381	216
	4 - Swale Way	459	229	0	0	78
	5 - Grovehurst Road	289	313	0	173	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	2	0	16
	2 - Grovehurst Road	0	0	5	2
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	6	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	16	5
	3 - A249 offslip (SB)	0	5	0	9	3
	4 - Swale Way	36	10	0	0	9
	5 - Grovehurst Road	1	1	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.39	959.12	238.6	238.6	F	1016	1524
	2 - Grovehurst Road	1.82	2591.72	335.2	195.8	F	676	1014
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.26	3.15	0.3	1.3	A	393	589
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	5.93	2.0	6.1	A	1202	1804
	3 - A249 offslip (SB)	1.53	1488.03	186.2	187.3	F	569	853
	4 - Swale Way	1.55	1617.59	246.8	159.4	F	703	1054
	5 - Grovehurst Road	1.57	1678.33	256.8	196.7	F	711	1067

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	833	208	381	890	0.937	798	0	0.0	8.7	32.148	D
	2 - Grovehurst Road	555	139	983	501	1.107	477	196	0.0	19.5	91.954	F

	3 - A249 onslip (NB)			1162					297				
	4 - B2005 - link	382	95	0	1539	0.248	381	1162	0.0	0.3	3.105	A	
2 - South	1 - A249 onslip (SB)			502				797					
	2 - B2005 - link	1163	291	118	1820	0.639	1156	384	0.0	1.7	5.360	A	
	3 - A249 offslip (SB)	467	117	1274	492	0.948	436	0	0.0	7.7	49.953	E	
	4 - Swale Way	577	144	615	555	1.039	519	1095	0.0	14.4	67.455	F	
	5 - Grovehurst Road	583	146	770	567	1.028	529	363	0.0	13.7	64.049	F	

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	995	249	394	880	1.131	870	0	8.7	39.9	114.695	F
	2 - Grovehurst Road	663	166	1056	452	1.465	452	208	19.5	72.3	383.230	F
	3 - A249 onslip (NB)			1202				306				
	4 - B2005 - link	394	99	0	1539	0.256	394	1202	0.3	0.3	3.144	A
2 - South	1 - A249 onslip (SB)			517				828				
	2 - B2005 - link	1208	302	121	1819	0.664	1207	396	1.7	1.9	5.873	A
	3 - A249 offslip (SB)	557	139	1328	451	1.237	446	0	7.7	35.6	195.265	F
	4 - Swale Way	689	172	638	544	1.267	541	1135	14.4	51.3	234.920	F
	5 - Grovehurst Road	697	174	803	544	1.281	542	376	13.7	52.5	236.253	F

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1219	305	395	880	1.386	879	0	39.9	124.9	346.370	F
	2 - Grovehurst Road	811	203	1064	447	1.816	447	209	72.3	163.4	961.331	F
	3 - A249 onslip (NB)			1205				306				
	4 - B2005 - link	395	99	0	1539	0.257	395	1205	0.3	0.3	3.145	A
2 - South	1 - A249 onslip (SB)			518				830				
	2 - B2005 - link	1211	303	121	1819	0.666	1211	397	1.9	2.0	5.926	A
	3 - A249 offslip (SB)	683	171	1332	447	1.528	446	0	35.6	94.6	539.201	F
	4 - Swale Way	843	211	641	543	1.554	542	1138	51.3	126.5	601.318	F
	5 - Grovehurst Road	853	213	806	542	1.573	542	377	52.5	130.2	617.496	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1219	305	395	880	1.386	880	0	124.9	209.7	691.364	F
	2 - Grovehurst Road	811	203	1065	447	1.817	447	209	163.4	254.6	1695.055	F
	3 - A249 onslip (NB)			1205				306				
	4 - B2005 - link	395	99	0	1539	0.257	395	1205	0.3	0.3	3.146	A
2 - South	1 - A249 onslip (SB)			518				830				
	2 - B2005 - link	1212	303	121	1819	0.666	1212	397	2.0	2.0	5.930	A
	3 - A249 offslip (SB)	683	171	1333	447	1.529	447	0	94.6	153.7	1012.248	F
	4 - Swale Way	843	211	641	543	1.555	542	1139	126.5	201.8	1098.467	F
	5 - Grovehurst Road	853	213	806	542	1.573	542	377	130.2	208.0	1131.542	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	995	249	395	880	1.131	879	0	209.7	238.6	923.506	F
	2 - Grovehurst Road	663	166	1065	447	1.483	447	209	254.6	308.6	2273.166	F
	3 - A249 onslip (NB)			1205				306				
	4 - B2005 - link	395	99	0	1539	0.257	395	1205	0.3	0.3	3.146	A
2 - South	1 - A249 onslip (SB)			518				830				
	2 - B2005 - link	1212	303	121	1819	0.666	1212	397	2.0	2.0	5.930	A
	3 - A249 offslip (SB)	557	139	1333	447	1.248	447	0	153.7	181.4	1359.917	F
	4 - Swale Way	689	172	641	543	1.269	542	1139	201.8	238.3	1468.483	F
	5 - Grovehurst Road	697	174	806	542	1.285	542	377	208.0	246.6	1516.818	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	833	208	395	880	0.948	876	0	238.6	228.0	959.120	F

1 - North	2 - Grovehurst Road	555	139	1062	449	1.236	449	209	308.6	335.2	2591.724	F
	3 - A249 onslip (NB)			1204				306				
	4 - B2005 - link	395	99	0	1539	0.257	395	1204	0.3	0.3	3.146	A
2 - South	1 - A249 onslip (SB)			518				830				
	2 - B2005 - link	1210	303	121	1819	0.665	1210	397	2.0	2.0	5.916	A
	3 - A249 offslip (SB)	467	117	1331	448	1.043	447	0	181.4	186.2	1488.033	F
	4 - Swale Way	577	144	640	543	1.063	542	1138	238.3	246.8	1617.594	F
	5 - Grovehurst Road	583	146	805	543	1.075	542	377	246.6	256.8	1678.330	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	8.74	0.03	0.28	8.74	11.52			N/A	N/A
	2 - Grovehurst Road	19.51	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.74	1.05	1.50	1.90	1.95			N/A	N/A
	3 - A249 offslip (SB)	7.73	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	14.41	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	13.69	>199	>199	>199	>199			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	39.94	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	72.25	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.94	0.08	1.21	4.41	6.11			N/A	N/A
	3 - A249 offslip (SB)	35.60	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	51.28	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	52.46	>199	>199	>199	>199			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	124.87	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	163.42	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.97	0.03	0.27	1.97	1.97			N/A	N/A
	3 - A249 offslip (SB)	94.64	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	126.53	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	130.21	>199	>199	>199	>199			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	209.71	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	254.63	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.03	0.31	1.18	1.25			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.98	0.03	0.26	1.98	1.98			N/A	N/A
	3 - A249 offslip (SB)	153.67	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	201.76	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	207.96	>199	>199	>199	>199			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	238.63	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	308.62	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.11	1.41	4.08	5.50			N/A	N/A
	3 - A249 offslip (SB)	181.38	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	238.29	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	246.56	>199	>199	>199	>199			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	228.01	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	335.15	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.23	1.16	3.56	4.48			N/A	N/A
	3 - A249 offslip (SB)	186.21	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	246.84	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	256.81	>199	>199	>199	>199			N/A	N/A

# 2031 + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	1077.34	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	2483.20	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D22	2031 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1190	100.000
	2 - Grovehurst Road		ONE HOUR	✓	389	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	529	100.000
	4 - Swale Way		ONE HOUR	✓	1374	100.000
	5 - Grovehurst Road		ONE HOUR	✓	613	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From				
	1 - A249 offslip (NB)	0	430	0	760
	2 - Grovehurst Road	0	0	34	355
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only



	4 - B2005 - link	0	277	560	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	187	0	0	521	402
	3 - A249 offslip (SB)	1	39	0	202	287
	4 - Swale Way	778	435	0	0	161
	5 - Grovehurst Road	150	356	0	107	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	0	0	19
	2 - Grovehurst Road	0	0	0	0
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	1	0	0	27	1
	3 - A249 offslip (SB)	0	8	0	8	3
	4 - Swale Way	17	3	0	0	3
	5 - Grovehurst Road	0	1	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.70	1867.33	440.0	178.4	F	1092	1638
	2 - Grovehurst Road	0.73	22.91	2.6	13.2	C	357	535
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.60	0.6	2.3	A	540	809
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.48	3.92	0.9	1.5	A	823	1235
	3 - A249 offslip (SB)	0.81	26.35	4.1	20.5	D	485	728
	4 - Swale Way	2.93	6009.28	1050.3	180.3	F	1261	1891
	5 - Grovehurst Road	0.98	86.96	15.7	60.3	F	562	844

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	896	224	482	846	1.059	809	0	0.0	21.8	62.059	F
	2 - Grovehurst Road	293	73	839	610	0.480	289	452	0.0	0.9	11.094	B

	3 - A249 onslip (NB)			780					347				
	4 - B2005 - link	483	121	0	1591	0.304		482	780	0.0	0.4	3.246	A
2 - South	1 - A249 onslip (SB)			561					582				
	2 - B2005 - link	776	194	79	1799	0.431		773	482	0.0	0.8	3.498	A
	3 - A249 offslip (SB)	398	100	852	813	0.490		394	0	0.0	0.9	8.524	A
	4 - Swale Way	1034	259	654	607	1.704		601	593	0.0	108.3	340.881	F
	5 - Grovehurst Road	461	115	691	655	0.705		453	564	0.0	2.2	17.123	C

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1070	267	530	812	1.318	810	0	21.8	86.7	255.231	F
	2 - Grovehurst Road	350	87	872	590	0.593	348	468	0.9	1.4	14.734	B
	3 - A249 onslip (NB)			835				385				
	4 - B2005 - link	530	133	0	1591	0.333	530	835	0.4	0.5	3.394	A
2 - South	1 - A249 onslip (SB)			624				593				
	2 - B2005 - link	824	206	95	1790	0.460	824	530	0.8	0.8	3.722	A
	3 - A249 offslip (SB)	476	119	919	761	0.625	473	0	0.9	1.6	12.390	B
	4 - Swale Way	1235	309	729	565	2.185	565	662	108.3	275.7	1301.726	F
	5 - Grovehurst Road	551	138	674	667	0.826	544	621	2.2	4.1	27.449	D

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1310	328	581	776	1.689	776	0	86.7	220.3	722.742	F
	2 - Grovehurst Road	428	107	884	585	0.732	424	472	1.4	2.5	21.754	C
	3 - A249 onslip (NB)			882				426				
	4 - B2005 - link	581	145	0	1591	0.365	581	882	0.5	0.6	3.565	A
2 - South	1 - A249 onslip (SB)			693				598				
	2 - B2005 - link	862	216	112	1780	0.484	862	581	0.8	0.9	3.919	A
	3 - A249 offslip (SB)	582	146	974	717	0.812	574	0	1.6	3.8	23.750	C
	4 - Swale Way	1513	378	812	520	2.912	520	736	275.7	524.0	2778.818	F
	5 - Grovehurst Road	675	169	647	686	0.984	644	684	4.1	11.9	59.295	F

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1310	328	590	769	1.704	769	0	220.3	355.6	1354.149	F
	2 - Grovehurst Road	428	107	886	584	0.734	428	473	2.5	2.6	22.914	C
	3 - A249 onslip (NB)			882				432				
	4 - B2005 - link	590	148	0	1591	0.371	590	882	0.6	0.6	3.597	A
2 - South	1 - A249 onslip (SB)			705				600				
	2 - B2005 - link	861	215	115	1779	0.484	861	590	0.9	0.9	3.924	A
	3 - A249 offslip (SB)	582	146	976	716	0.814	581	0	3.8	4.1	26.349	D
	4 - Swale Way	1513	378	816	517	2.925	517	741	524.0	773.0	4088.383	F
	5 - Grovehurst Road	675	169	646	687	0.982	660	688	11.9	15.7	86.961	F

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1070	267	558	792	1.351	792	0	355.6	425.1	1733.798	F
	2 - Grovehurst Road	350	87	879	587	0.596	354	471	2.6	1.5	15.754	C
	3 - A249 onslip (NB)			829				404				
	4 - B2005 - link	558	139	0	1591	0.351	558	829	0.6	0.5	3.489	A
2 - South	1 - A249 onslip (SB)			661				602				
	2 - B2005 - link	817	204	103	1785	0.458	817	557	0.9	0.8	3.722	A
	3 - A249 offslip (SB)	476	119	921	760	0.626	485	0	4.1	1.7	13.505	B
	4 - Swale Way	1235	309	733	563	2.194	563	672	773.0	941.0	5224.563	F
	5 - Grovehurst Road	551	138	671	669	0.824	591	625	15.7	5.6	54.775	F

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	896	224	495	836	1.071	836	0	425.1	440.0	1867.326	F

1 - North	2 - Grovehurst Road	293	73	865	592	0.494	295	466	1.5	1.0	12.190	B
	3 - A249 onslip (NB)			803				357				
	4 - B2005 - link	495	124	0	1591	0.311	495	803	0.5	0.5	3.286	A
2 - South	1 - A249 onslip (SB)			576				589				
	2 - B2005 - link	799	200	83	1797	0.445	799	494	0.8	0.8	3.610	A
	3 - A249 offslip (SB)	398	100	882	789	0.505	401	0	1.7	1.0	9.338	A
	4 - Swale Way	1034	259	672	597	1.732	597	611	941.0	1050.3	6009.281	F
	5 - Grovehurst Road	461	115	692	654	0.705	474	577	5.6	2.5	21.076	C

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	21.80	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.90	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.75	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.94	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	108.25	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.24	0.73	1.64	2.95	3.53			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	86.71	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.40	0.11	1.15	2.60	3.38			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.00	0.00	0.50	0.50			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.18	0.94	1.43	1.49			N/A	N/A
	3 - A249 offslip (SB)	1.61	0.07	1.00	3.65	5.10			N/A	N/A
	4 - Swale Way	275.73	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.09	0.13	1.92	9.73	13.33			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	220.34	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	2.52	0.03	0.32	4.53	13.20			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.57	0.03	0.25	0.57	0.57			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.93	0.03	0.25	0.93	0.93			N/A	N/A
	3 - A249 offslip (SB)	3.81	0.04	0.37	9.34	20.47			N/A	N/A
	4 - Swale Way	524.04	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	11.91	0.27	6.45	29.40	40.02			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	355.62	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	2.63	0.03	0.29	2.63	10.18			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.28	0.78	2.29			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.94	0.03	0.26	0.94	0.94			N/A	N/A
	3 - A249 offslip (SB)	4.06	0.03	0.31	5.18	19.62			N/A	N/A
	4 - Swale Way	772.96	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	15.68	0.17	6.45	42.16	60.33			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	425.15	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.53	0.05	0.50	3.88	5.98			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.54	0.54	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.73	0.04	0.44	4.63	7.67			N/A	N/A
	4 - Swale Way	941.00	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.59	0.05	0.49	16.01	28.02			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	440.04	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.00	0.04	0.39	2.50	4.25			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.04	0.03	0.34	2.44	5.10			N/A	N/A
	4 - Swale Way	1050.32	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.55	0.03	0.34	5.67	13.62			N/A	N/A

# 2031 + K3 Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	231.93	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	373.34	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D23	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	863	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	692	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From				
	1 - A249 offslip (NB)	0	42	0	821
	2 - Grovehurst Road	0	0	25	415
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	147	327	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	141	0	0	910	183
	3 - A249 offslip (SB)	1	18	0	377	174
	4 - Swale Way	389	226	0	0	77
	5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	7	0	18
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	7	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	16	6
	3 - A249 offslip (SB)	0	6	0	9	4
	4 - Swale Way	39	10	0	0	9
	5 - Grovehurst Road	1	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.15	300.60	72.9	125.1	F	792	1188
	2 - Grovehurst Road	1.16	321.84	39.2	75.7	F	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.29	3.30	0.4	1.7	A	418	627
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.20	2.0	4.9	A	1114	1672
	3 - A249 offslip (SB)	1.49	1134.31	134.5	200.0	F	523	785
	4 - Swale Way	1.21	465.37	80.0	138.6	F	635	952
	5 - Grovehurst Road	1.15	303.49	52.1	95.5	F	561	841

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	650	162	350	887	0.733	639	0	0.0	2.6	14.023	B
	2 - Grovehurst Road	331	83	850	574	0.577	326	140	0.0	1.3	14.239	B

	3 - A249 onslip (NB)			916				260				
	4 - B2005 - link	351	88	0	1530	0.230	350	916	0.0	0.3	3.049	A
2 - South	1 - A249 onslip (SB)			479				543				
	2 - B2005 - link	918	229	127	1780	0.516	914	352	0.0	1.1	4.138	A
	3 - A249 offslip (SB)	429	107	1041	655	0.655	422	0	0.0	1.8	15.028	C
	4 - Swale Way	521	130	383	661	0.788	508	1080	0.0	3.3	21.883	C
	5 - Grovehurst Road	460	115	570	685	0.672	452	321	0.0	1.9	15.022	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	776	194	410	845	0.918	756	0	2.6	7.6	34.371	D
	2 - Grovehurst Road	396	99	1002	474	0.835	385	164	1.3	4.0	36.600	E
	3 - A249 onslip (NB)			1082				305				
	4 - B2005 - link	410	103	0	1530	0.268	410	1082	0.3	0.4	3.215	A
2 - South	1 - A249 onslip (SB)			561				636				
	2 - B2005 - link	1084	271	150	1767	0.614	1082	411	1.1	1.6	5.245	A
	3 - A249 offslip (SB)	512	128	1232	506	1.013	472	0	1.8	11.9	71.617	F
	4 - Swale Way	622	156	444	631	0.985	590	1261	3.3	11.4	60.464	F
	5 - Grovehurst Road	549	137	663	616	0.892	533	370	1.9	5.9	37.919	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	950	238	436	826	1.150	817	0	7.6	40.9	121.432	F
	2 - Grovehurst Road	484	121	1078	423	1.145	412	175	4.0	22.1	136.403	F
	3 - A249 onslip (NB)			1166				324				
	4 - B2005 - link	437	109	0	1530	0.285	436	1166	0.4	0.4	3.292	A
2 - South	1 - A249 onslip (SB)			600				679				
	2 - B2005 - link	1169	292	163	1759	0.665	1168	437	1.6	1.9	6.069	A
	3 - A249 offslip (SB)	628	157	1330	430	1.460	429	0	11.9	61.6	328.415	F
	4 - Swale Way	762	190	452	628	1.214	623	1307	11.4	46.0	181.714	F
	5 - Grovehurst Road	673	168	702	588	1.145	578	373	5.9	29.7	128.942	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	950	238	439	824	1.153	823	0	40.9	72.9	259.440	F
	2 - Grovehurst Road	484	121	1086	418	1.158	416	176	22.1	39.2	282.586	F
	3 - A249 onslip (NB)			1175				327				
	4 - B2005 - link	439	110	0	1530	0.287	439	1175	0.4	0.4	3.301	A
2 - South	1 - A249 onslip (SB)			604				684				
	2 - B2005 - link	1178	295	164	1758	0.670	1178	440	1.9	2.0	6.197	A
	3 - A249 offslip (SB)	628	157	1342	421	1.491	421	0	61.6	113.3	754.943	F
	4 - Swale Way	762	190	452	628	1.214	627	1311	46.0	79.8	373.023	F
	5 - Grovehurst Road	673	168	706	585	1.150	583	373	29.7	52.1	266.368	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	776	194	436	826	0.939	815	0	72.9	63.0	300.602	F
	2 - Grovehurst Road	396	99	1076	425	0.932	414	175	39.2	34.6	321.839	F
	3 - A249 onslip (NB)			1166				324				
	4 - B2005 - link	436	109	0	1530	0.285	436	1166	0.4	0.4	3.290	A
2 - South	1 - A249 onslip (SB)			600				679				
	2 - B2005 - link	1169	292	163	1759	0.664	1169	437	2.0	2.0	6.102	A
	3 - A249 offslip (SB)	512	128	1332	429	1.195	429	0	113.3	134.3	1050.523	F
	4 - Swale Way	622	156	452	627	0.992	621	1308	79.8	80.0	465.371	F
	5 - Grovehurst Road	549	137	700	589	0.933	578	373	52.1	45.0	303.493	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	650	162	435	827	0.786	814	0	63.0	21.9	192.255	F

1 - North	2 - Grovehurst Road	331	83	1075	426	0.778	414	175	34.6	14.0	218.685	F
	3 - A249 onslip (NB)			1165				324				
	4 - B2005 - link	435	109	0	1530	0.285	435	1165	0.4	0.4	3.291	A
	1 - A249 onslip (SB)			599				677				
2 - South	2 - B2005 - link	1168	292	163	1759	0.664	1168	436	2.0	2.0	6.086	A
	3 - A249 offslip (SB)	429	107	1330	430	0.998	428	0	134.3	134.5	1134.310	F
	4 - Swale Way	521	130	452	628	0.830	620	1307	80.0	55.2	394.386	F
	5 - Grovehurst Road	460	115	699	590	0.779	577	373	45.0	15.7	195.374	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.58	0.08	1.39	6.25	8.83			N/A	N/A
	2 - Grovehurst Road	1.31	0.05	0.47	3.28	5.10			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.06	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.81	0.03	0.25	1.81	1.81			N/A	N/A
	4 - Swale Way	3.31	0.04	0.44	9.24	16.45			N/A	N/A
	5 - Grovehurst Road	1.94	0.07	1.03	4.72	6.81			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	7.65	0.18	3.77	19.01	26.21			N/A	N/A
	2 - Grovehurst Road	4.05	0.08	1.02	10.83	16.02			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.57	0.07	1.00	3.50	4.87			N/A	N/A
	3 - A249 offslip (SB)	11.86	0.03	0.29	11.86	31.85			N/A	N/A
	4 - Swale Way	11.41	0.27	6.20	28.09	38.22			N/A	N/A
	5 - Grovehurst Road	5.92	0.14	2.63	14.90	20.81			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	40.94	14.53	37.43	66.44	76.69			N/A	N/A
	2 - Grovehurst Road	22.11	5.26	19.10	39.15	46.57			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.95	0.03	0.27	1.95	1.95			N/A	N/A
	3 - A249 offslip (SB)	61.63	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	46.03	17.56	42.49	73.22	83.97			N/A	N/A
	5 - Grovehurst Road	29.67	8.70	26.41	50.43	59.12			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	72.85	32.44	68.65	110.67	125.05			N/A	N/A
	2 - Grovehurst Road	39.19	12.81	35.46	65.09	75.69			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.30	1.26	1.70			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.00	0.03	0.26	2.00	2.00			N/A	N/A
	3 - A249 offslip (SB)	113.33	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	79.81	40.04	76.18	116.02	129.37			N/A	N/A
	5 - Grovehurst Road	52.14	19.78	48.14	83.21	95.49			N/A	N/A



## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	62.99	22.97	57.95	102.04	117.59			N/A	N/A
	2 - Grovehurst Road	34.59	7.83	29.83	62.72	75.01			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.20	1.13	3.66	4.65			N/A	N/A
	3 - A249 offslip (SB)	134.26	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	79.96	34.91	75.21	122.39	138.57			N/A	N/A
	5 - Grovehurst Road	44.99	12.90	40.09	77.61	91.27			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	21.89	3.09	17.67	42.73	52.52			N/A	N/A
	2 - Grovehurst Road	13.99	0.89	9.55	31.03	40.15			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.52	1.31	3.07	3.80			N/A	N/A
	3 - A249 offslip (SB)	134.48	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	55.22	13.89	48.43	98.56	117.11			N/A	N/A
	5 - Grovehurst Road	15.66	1.39	11.36	33.42	42.53			N/A	N/A

# 2031 + K3 Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	254.52	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1661.70	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D24	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	828	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	443	100.000
	4 - Swale Way		ONE HOUR	✓	1278	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	648
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	262	522	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	480	322
	3 - A249 offslip (SB)	1	27	0	199	216
	4 - Swale Way	687	432	0	0	159
	5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	22
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	4	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	28	1
	3 - A249 offslip (SB)	0	11	0	8	4
	4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.25	466.83	101.3	157.7	F	760	1140
	2 - Grovehurst Road	0.49	13.78	0.9	3.5	B	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.64	0.6	2.2	A	539	809
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.46	3.83	0.8	1.5	A	752	1128
	3 - A249 offslip (SB)	0.65	13.84	1.8	5.8	B	407	610
	4 - Swale Way	2.25	3935.47	772.5	179.2	F	1173	1759
	5 - Grovehurst Road	0.85	33.47	5.2	27.6	D	490	735

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	623	156	492	799	0.781	610	0	0.0	3.2	18.070	C
	2 - Grovehurst Road	171	43	805	618	0.276	169	297	0.0	0.4	7.991	A

	3 - A249 onslip (NB)			627				348				
	4 - B2005 - link	494	123	0	1580	0.312	492	627	0.0	0.5	3.301	A
2 - South	1 - A249 onslip (SB)			571				490				
	2 - B2005 - link	630	158	79	1750	0.360	628	493	0.0	0.6	3.201	A
	3 - A249 offslip (SB)	334	83	707	908	0.367	331	0	0.0	0.6	6.218	A
	4 - Swale Way	962	241	453	711	1.353	701	584	0.0	65.4	179.773	F
	5 - Grovehurst Road	402	101	666	657	0.612	396	488	0.0	1.5	13.501	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	744	186	533	770	0.966	714	0	3.2	10.7	48.254	E
	2 - Grovehurst Road	204	51	914	543	0.376	203	334	0.4	0.6	10.557	B
	3 - A249 onslip (NB)			738				379				
	4 - B2005 - link	534	133	0	1580	0.338	533	738	0.5	0.5	3.438	A
2 - South	1 - A249 onslip (SB)			627				493				
	2 - B2005 - link	741	185	95	1741	0.426	741	533	0.6	0.7	3.596	A
	3 - A249 offslip (SB)	398	100	835	804	0.495	397	0	0.6	1.0	8.809	A
	4 - Swale Way	1149	287	538	665	1.728	665	694	65.4	186.4	710.891	F
	5 - Grovehurst Road	480	120	644	672	0.714	477	559	1.5	2.3	18.089	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	912	228	586	734	1.241	731	0	10.7	56.0	178.611	F
	2 - Grovehurst Road	250	62	962	513	0.487	249	355	0.6	0.9	13.546	B
	3 - A249 onslip (NB)			791				420				
	4 - B2005 - link	587	147	0	1580	0.371	586	791	0.5	0.6	3.621	A
2 - South	1 - A249 onslip (SB)			700				496				
	2 - B2005 - link	789	197	115	1730	0.456	789	586	0.7	0.8	3.823	A
	3 - A249 offslip (SB)	488	122	904	749	0.651	484	0	1.0	1.8	13.414	B
	4 - Swale Way	1407	352	607	627	2.246	627	781	186.4	381.6	1638.166	F
	5 - Grovehurst Road	588	147	618	690	0.852	578	615	2.3	4.8	29.810	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	912	228	591	731	1.247	731	0	56.0	101.3	392.107	F
	2 - Grovehurst Road	250	62	965	511	0.489	250	356	0.9	0.9	13.781	B
	3 - A249 onslip (NB)			792				423				
	4 - B2005 - link	591	148	0	1580	0.374	591	792	0.6	0.6	3.638	A
2 - South	1 - A249 onslip (SB)			707				497				
	2 - B2005 - link	790	198	116	1729	0.457	790	590	0.8	0.8	3.834	A
	3 - A249 offslip (SB)	488	122	907	747	0.653	488	0	1.8	1.8	13.841	B
	4 - Swale Way	1407	352	609	625	2.251	625	785	381.6	577.0	2656.593	F
	5 - Grovehurst Road	588	147	618	690	0.852	586	617	4.8	5.2	33.469	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	744	186	539	767	0.971	759	0	101.3	97.6	466.835	F
	2 - Grovehurst Road	204	51	953	516	0.395	205	345	0.9	0.7	11.618	B
	3 - A249 onslip (NB)			775				383				
	4 - B2005 - link	538	135	0	1580	0.341	539	775	0.6	0.5	3.456	A
2 - South	1 - A249 onslip (SB)			635				492				
	2 - B2005 - link	780	195	97	1740	0.448	780	538	0.8	0.8	3.752	A
	3 - A249 offslip (SB)	398	100	877	770	0.517	401	0	1.8	1.1	9.843	A
	4 - Swale Way	1149	287	557	654	1.756	654	721	577.0	700.7	3441.446	F
	5 - Grovehurst Road	480	120	637	677	0.709	490	574	5.2	2.6	20.215	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	623	156	491	799	0.780	791	0	97.6	55.7	351.214	F

1 - North	2 - Grovehurst Road	171	43	946	518	0.330	172	336	0.7	0.5	10.421	B
	3 - A249 onslip (NB)			770				348				
	4 - B2005 - link	491	123	0	1580	0.311	491	770	0.5	0.5	3.306	A
2 - South	1 - A249 onslip (SB)			571				486				
	2 - B2005 - link	780	195	81	1749	0.446	780	490	0.8	0.8	3.713	A
	3 - A249 offslip (SB)	334	83	860	782	0.427	335	0	1.1	0.8	8.078	A
	4 - Swale Way	962	241	521	675	1.426	675	674	700.7	772.5	3935.472	F
	5 - Grovehurst Road	402	101	651	668	0.602	406	545	2.6	1.6	13.979	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.24	0.05	0.79	9.01	14.38			N/A	N/A
	2 - Grovehurst Road	0.38	0.00	0.00	0.38	0.38			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.56	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.57	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	65.38	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.52	1.05	1.50	1.90	1.95			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.74	0.28	5.94	26.16	35.44			N/A	N/A
	2 - Grovehurst Road	0.59	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.74	0.20	0.93	1.39	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.96	0.09	0.92	1.55	1.89			N/A	N/A
	4 - Swale Way	186.41	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.35	0.09	1.42	5.38	7.42			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	56.02	25.88	52.90	83.71	94.16			N/A	N/A
	2 - Grovehurst Road	0.92	0.03	0.26	0.92	0.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.25	0.59	0.59			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.83	0.03	0.25	0.83	0.83			N/A	N/A
	3 - A249 offslip (SB)	1.79	0.03	0.28	1.79	5.79			N/A	N/A
	4 - Swale Way	381.56	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.78	0.04	0.44	13.29	24.70			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	101.29	57.94	97.99	139.63	153.23			N/A	N/A
	2 - Grovehurst Road	0.94	0.03	0.28	0.94	3.50			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.28	0.65	2.19			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.03	0.26	0.84	0.87			N/A	N/A
	3 - A249 offslip (SB)	1.84	0.03	0.28	1.84	4.53			N/A	N/A
	4 - Swale Way	577.03	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.16	0.03	0.34	9.90	27.64			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	97.58	49.41	93.32	141.56	157.70			N/A	N/A
	2 - Grovehurst Road	0.67	0.08	0.79	1.37	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.82	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.09	0.07	0.90	1.95	2.72			N/A	N/A
	4 - Swale Way	700.67	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.59	0.04	0.43	7.14	12.70			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	55.75	18.31	50.61	92.98	108.14			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.45	1.28	1.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.75	0.05	0.48	1.48	1.98			N/A	N/A
	4 - Swale Way	772.50	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.57	0.03	0.35	3.82	8.02			N/A	N/A

# 2031 + WKN Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	239.43	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	386.53	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D25	2031 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	869	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	698	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	827
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	147	327	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	141	0	0	916	183
	3 - A249 offslip (SB)	1	18	0	377	174
	4 - Swale Way	395	226	0	0	77
	5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	7	0	18
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	7	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	17	6
	3 - A249 offslip (SB)	0	6	0	9	4
	4 - Swale Way	40	10	0	0	9
	5 - Grovehurst Road	1	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.16	312.69	75.4	127.9	F	797	1196
	2 - Grovehurst Road	1.16	324.78	39.4	76.0	F	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.29	3.29	0.4	1.7	A	416	624
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.26	2.0	4.9	A	1110	1665
	3 - A249 offslip (SB)	1.50	1152.20	136.2	186.3	F	523	785
	4 - Swale Way	1.23	499.91	86.0	146.3	F	640	961
	5 - Grovehurst Road	1.15	310.97	52.8	96.3	F	561	841

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	654	164	350	887	0.738	644	0	0.0	2.6	14.242	B
	2 - Grovehurst Road	331	83	854	571	0.580	326	140	0.0	1.3	14.389	B



	3 - A249 onslip (NB)			920				260				
	4 - B2005 - link	351	88	0	1530	0.229	350	920	0.0	0.3	3.048	A
2 - South	1 - A249 onslip (SB)			479				546				
	2 - B2005 - link	916	229	127	1768	0.518	912	351	0.0	1.1	4.185	A
	3 - A249 offslip (SB)	429	107	1039	651	0.659	422	0	0.0	1.8	15.232	C
	4 - Swale Way	525	131	381	659	0.798	512	1080	0.0	3.5	22.729	C
	5 - Grovehurst Road	460	115	573	680	0.676	452	320	0.0	2.0	15.298	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	781	195	409	846	0.924	760	0	2.6	8.0	35.390	E
	2 - Grovehurst Road	396	99	1005	471	0.839	384	163	1.3	4.1	37.346	E
	3 - A249 onslip (NB)			1086				304				
	4 - B2005 - link	409	102	0	1530	0.267	409	1086	0.3	0.4	3.211	A
2 - South	1 - A249 onslip (SB)			560				638				
	2 - B2005 - link	1081	270	150	1755	0.616	1079	410	1.1	1.6	5.313	A
	3 - A249 offslip (SB)	512	128	1229	503	1.019	471	0	1.8	12.3	73.871	F
	4 - Swale Way	627	157	441	629	0.997	592	1258	3.5	12.4	64.381	F
	5 - Grovehurst Road	549	137	665	612	0.897	533	368	2.0	6.1	39.031	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	957	239	434	828	1.156	819	0	8.0	42.3	124.733	F
	2 - Grovehurst Road	484	121	1079	423	1.146	412	174	4.1	22.3	137.723	F
	3 - A249 onslip (NB)			1168				323				
	4 - B2005 - link	434	108	0	1530	0.284	434	1168	0.4	0.4	3.284	A
2 - South	1 - A249 onslip (SB)			597				680				
	2 - B2005 - link	1164	291	162	1748	0.666	1162	435	1.6	2.0	6.132	A
	3 - A249 offslip (SB)	628	157	1325	428	1.465	427	0	12.3	62.5	334.901	F
	4 - Swale Way	769	192	448	626	1.228	622	1303	12.4	49.0	193.075	F
	5 - Grovehurst Road	673	168	700	586	1.147	577	371	6.1	30.1	131.118	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	957	239	437	826	1.158	825	0	42.3	75.4	267.195	F
	2 - Grovehurst Road	484	121	1086	418	1.159	416	175	22.3	39.4	284.665	F
	3 - A249 onslip (NB)			1177				325				
	4 - B2005 - link	437	109	0	1530	0.285	437	1177	0.4	0.4	3.292	A
2 - South	1 - A249 onslip (SB)			601				684				
	2 - B2005 - link	1172	293	164	1747	0.671	1172	438	2.0	2.0	6.259	A
	3 - A249 offslip (SB)	628	157	1336	420	1.496	419	0	62.5	114.5	765.610	F
	4 - Swale Way	769	192	448	626	1.228	625	1307	49.0	84.8	396.376	F
	5 - Grovehurst Road	673	168	704	584	1.152	582	370	30.1	52.8	270.426	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	781	195	433	828	0.943	817	0	75.4	66.3	312.693	F
	2 - Grovehurst Road	396	99	1077	424	0.933	414	174	39.4	34.9	324.783	F
	3 - A249 onslip (NB)			1168				323				
	4 - B2005 - link	433	108	0	1530	0.283	433	1168	0.4	0.4	3.286	A
2 - South	1 - A249 onslip (SB)			596				679				
	2 - B2005 - link	1163	291	162	1748	0.665	1163	434	2.0	2.0	6.157	A
	3 - A249 offslip (SB)	512	128	1325	428	1.198	428	0	114.5	135.7	1064.285	F
	4 - Swale Way	627	157	449	626	1.003	622	1304	84.8	86.0	499.905	F
	5 - Grovehurst Road	549	137	700	586	0.937	575	371	52.8	46.3	310.972	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	654	164	433	829	0.789	816	0	66.3	25.8	207.183	F

1 - North	2 - Grovehurst Road	331	83	1075	425	0.779	413	174	34.9	14.5	222.397	F
	3 - A249 onslip (NB)			1167				322				
	4 - B2005 - link	433	108	0	1530	0.283	433	1167	0.4	0.4	3.283	A
	1 - A249 onslip (SB)			596				677				
2 - South	2 - B2005 - link	1162	291	162	1748	0.665	1162	434	2.0	2.0	6.148	A
	3 - A249 offslip (SB)	429	107	1324	429	1.001	427	0	135.7	136.2	1152.196	F
	4 - Swale Way	525	131	448	626	0.840	619	1303	86.0	62.7	434.293	F
	5 - Grovehurst Road	460	115	697	589	0.781	576	370	46.3	17.2	204.371	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.65	0.08	1.31	6.60	9.48			N/A	N/A
	2 - Grovehurst Road	1.33	0.05	0.46	3.35	5.25			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.07	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.84	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	3.48	0.04	0.41	9.42	18.08			N/A	N/A
	5 - Grovehurst Road	1.98	0.06	0.99	4.86	7.08			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	7.96	0.18	3.94	19.82	27.30			N/A	N/A
	2 - Grovehurst Road	4.14	0.08	1.09	11.04	16.32			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.58	0.07	1.01	3.54	4.92			N/A	N/A
	3 - A249 offslip (SB)	12.31	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	12.42	0.27	6.64	30.85	42.15			N/A	N/A
	5 - Grovehurst Road	6.11	0.14	2.76	15.35	21.38			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	42.31	15.41	38.82	68.19	78.54			N/A	N/A
	2 - Grovehurst Road	22.29	5.36	19.29	39.40	46.83			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.96	0.03	0.27	1.96	1.96			N/A	N/A
	3 - A249 offslip (SB)	62.46	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	48.96	18.88	45.27	77.71	89.05			N/A	N/A
	5 - Grovehurst Road	30.12	8.97	26.86	51.01	59.75			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	75.38	34.42	71.23	113.48	127.86			N/A	N/A
	2 - Grovehurst Road	39.45	13.01	35.74	65.41	76.03			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.30	1.26	1.67			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.01	0.03	0.26	2.01	2.01			N/A	N/A
	3 - A249 offslip (SB)	114.52	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	84.77	43.56	81.13	122.12	135.80			N/A	N/A
	5 - Grovehurst Road	52.84	20.32	48.87	83.98	96.26			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	66.34	24.64	61.20	106.92	123.01			N/A	N/A
	2 - Grovehurst Road	34.94	7.98	30.16	63.23	75.57			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.00	0.19	1.11	3.71	4.73			N/A	N/A
	3 - A249 offslip (SB)	135.70	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	86.03	39.22	81.34	129.76	146.25			N/A	N/A
	5 - Grovehurst Road	46.33	13.54	41.40	79.52	93.36			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	25.78	5.25	21.87	47.41	57.03			N/A	N/A
	2 - Grovehurst Road	14.47	0.92	9.89	32.11	41.55			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.00	0.51	1.31	3.14	3.85			N/A	N/A
	3 - A249 offslip (SB)	136.20	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	62.72	18.02	56.01	108.56	127.70			N/A	N/A
	5 - Grovehurst Road	17.23	1.50	13.09	35.42	44.40			N/A	N/A

# 2031 + WKN Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	255.23	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1720.77	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D26	2031 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	830	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	444	100.000
	4 - Swale Way		ONE HOUR	✓	1295	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From	1 - A249 offslip (NB)	180	0	650
		2 - Grovehurst Road	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	262	522	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	482	322
	3 - A249 offslip (SB)	1	27	0	200	216
	4 - Swale Way	704	432	0	0	159
	5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	22
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	4	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	29	1
	3 - A249 offslip (SB)	0	11	0	8	4
	4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.25	466.82	101.5	158.0	F	762	1142
	2 - Grovehurst Road	0.49	13.79	0.9	3.5	B	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.63	0.6	2.2	A	536	804
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.46	3.86	0.8	1.5	A	750	1125
	3 - A249 offslip (SB)	0.66	13.98	1.9	6.0	B	407	611
	4 - Swale Way	2.28	4046.98	795.3	179.1	F	1188	1782
	5 - Grovehurst Road	0.85	33.79	5.2	28.0	D	490	735

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	625	156	489	800	0.781	612	0	0.0	3.2	18.033	C
	2 - Grovehurst Road	171	43	805	619	0.276	169	296	0.0	0.4	7.988	A

	3 - A249 onslip (NB)			628				346				
	4 - B2005 - link	491	123	0	1580	0.311	489	628	0.0	0.4	3.292	A
2 - South	1 - A249 onslip (SB)			568				495				
	2 - B2005 - link	628	157	79	1741	0.361	626	490	0.0	0.6	3.222	A
	3 - A249 offslip (SB)	334	84	705	907	0.369	332	0	0.0	0.6	6.240	A
	4 - Swale Way	975	244	452	711	1.370	701	585	0.0	68.4	187.484	F
	5 - Grovehurst Road	402	101	667	656	0.613	396	486	0.0	1.5	13.565	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	746	187	531	772	0.966	716	0	3.2	10.7	48.170	E
	2 - Grovehurst Road	204	51	914	543	0.376	203	333	0.4	0.6	10.560	B
	3 - A249 onslip (NB)			740				377				
	4 - B2005 - link	531	133	0	1580	0.336	531	740	0.4	0.5	3.429	A
2 - South	1 - A249 onslip (SB)			625				497				
	2 - B2005 - link	739	185	95	1732	0.427	739	530	0.6	0.7	3.622	A
	3 - A249 offslip (SB)	399	100	833	802	0.498	398	0	0.6	1.0	8.854	A
	4 - Swale Way	1164	291	536	665	1.750	665	695	68.4	193.2	738.253	F
	5 - Grovehurst Road	480	120	645	671	0.715	477	556	1.5	2.4	18.189	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	914	228	583	736	1.241	732	0	10.7	56.1	178.492	F
	2 - Grovehurst Road	250	62	962	513	0.487	249	354	0.6	0.9	13.555	B
	3 - A249 onslip (NB)			793				418				
	4 - B2005 - link	584	146	0	1580	0.369	583	793	0.5	0.6	3.611	A
2 - South	1 - A249 onslip (SB)			698				500				
	2 - B2005 - link	787	197	115	1721	0.457	787	583	0.7	0.8	3.851	A
	3 - A249 offslip (SB)	489	122	901	748	0.654	485	0	1.0	1.8	13.542	B
	4 - Swale Way	1426	356	605	627	2.274	627	782	193.2	392.9	1688.879	F
	5 - Grovehurst Road	588	147	620	689	0.854	578	613	2.4	4.8	30.043	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	914	228	588	733	1.247	732	0	56.1	101.5	392.019	F
	2 - Grovehurst Road	250	62	965	511	0.489	250	355	0.9	0.9	13.790	B
	3 - A249 onslip (NB)			794				422				
	4 - B2005 - link	588	147	0	1580	0.372	588	794	0.6	0.6	3.628	A
2 - South	1 - A249 onslip (SB)			704				501				
	2 - B2005 - link	788	197	116	1720	0.458	788	588	0.8	0.8	3.862	A
	3 - A249 offslip (SB)	489	122	904	746	0.656	489	0	1.8	1.9	13.982	B
	4 - Swale Way	1426	356	608	626	2.279	626	785	392.9	593.0	2728.047	F
	5 - Grovehurst Road	588	147	619	689	0.853	586	614	4.8	5.2	33.791	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	746	187	536	768	0.971	761	0	101.5	97.8	466.825	F
	2 - Grovehurst Road	204	51	953	516	0.395	205	344	0.9	0.7	11.623	B
	3 - A249 onslip (NB)			777				381				
	4 - B2005 - link	536	134	0	1580	0.339	536	777	0.6	0.5	3.450	A
2 - South	1 - A249 onslip (SB)			632				496				
	2 - B2005 - link	777	194	97	1731	0.449	778	535	0.8	0.8	3.776	A
	3 - A249 offslip (SB)	399	100	875	768	0.520	402	0	1.9	1.1	9.913	A
	4 - Swale Way	1164	291	556	655	1.778	655	721	593.0	720.4	3534.847	F
	5 - Grovehurst Road	480	120	638	676	0.710	490	572	5.2	2.6	20.365	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	625	156	489	801	0.780	793	0	97.8	55.9	351.232	F

1 - North	2 - Grovehurst Road	171	43	946	518	0.330	172	335	0.7	0.5	10.425	B
	3 - A249 onslip (NB)			772				346				
	4 - B2005 - link	488	122	0	1580	0.309	489	772	0.5	0.4	3.300	A
2 - South	1 - A249 onslip (SB)			568				490				
	2 - B2005 - link	778	194	81	1740	0.447	778	487	0.8	0.8	3.740	A
	3 - A249 offslip (SB)	334	84	858	780	0.428	336	0	1.1	0.8	8.122	A
	4 - Swale Way	975	244	519	675	1.444	675	675	720.4	795.3	4046.983	F
	5 - Grovehurst Road	402	101	652	666	0.603	406	542	2.6	1.6	14.045	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.25	0.05	0.78	9.02	14.39			N/A	N/A
	2 - Grovehurst Road	0.38	0.00	0.00	0.38	0.38			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.56	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.58	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	68.43	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.52	1.05	1.50	1.90	1.95			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.75	0.28	5.94	26.19	35.49			N/A	N/A
	2 - Grovehurst Road	0.59	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.74	0.20	0.93	1.39	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.97	0.09	0.92	1.57	1.91			N/A	N/A
	4 - Swale Way	193.21	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.36	0.09	1.43	5.41	7.47			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	56.14	25.96	53.02	83.90	94.41			N/A	N/A
	2 - Grovehurst Road	0.92	0.03	0.26	0.92	0.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.58	0.03	0.25	0.58	0.58			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.03	0.25	0.84	0.84			N/A	N/A
	3 - A249 offslip (SB)	1.81	0.03	0.28	1.81	5.99			N/A	N/A
	4 - Swale Way	392.94	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.82	0.04	0.44	13.45	24.86			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	101.52	58.11	98.24	139.99	153.69			N/A	N/A
	2 - Grovehurst Road	0.94	0.03	0.28	0.94	3.50			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.28	0.69	2.21			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.03	0.26	0.84	0.85			N/A	N/A
	3 - A249 offslip (SB)	1.86	0.03	0.28	1.86	4.62			N/A	N/A
	4 - Swale Way	592.98	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.20	0.03	0.34	10.15	27.96			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	97.81	49.57	93.55	141.87	158.04			N/A	N/A
	2 - Grovehurst Road	0.67	0.08	0.79	1.37	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.82	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.10	0.07	0.90	1.98	2.77			N/A	N/A
	4 - Swale Way	720.36	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.61	0.04	0.43	7.19	12.80			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	55.89	18.39	50.74	93.14	108.30			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.45	1.28	1.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.76	0.05	0.48	1.51	2.03			N/A	N/A
	4 - Swale Way	795.31	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.57	0.03	0.35	3.83	8.07			N/A	N/A



# 2031 + K3 and WKN Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	253.02	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	397.60	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D27	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	871	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	701	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	829
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	147	327	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	141	0	0	918	183
	3 - A249 offslip (SB)	1	18	0	377	174
	4 - Swale Way	398	226	0	0	77
	5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	7	0	19
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	7	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	17	6
	3 - A249 offslip (SB)	0	6	0	9	4
	4 - Swale Way	41	10	0	0	9
	5 - Grovehurst Road	1	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.17	335.56	79.4	132.2	F	799	1199
	2 - Grovehurst Road	1.16	329.00	39.8	76.5	F	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.28	3.29	0.4	1.7	A	415	622
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.28	2.0	5.0	A	1113	1670
	3 - A249 offslip (SB)	1.50	1171.76	138.2	186.3	F	523	785
	4 - Swale Way	1.24	527.84	91.0	152.5	F	643	965
	5 - Grovehurst Road	1.15	314.99	53.3	96.8	F	561	841

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	656	164	349	880	0.745	645	0	0.0	2.7	14.696	B
	2 - Grovehurst Road	331	83	855	567	0.584	326	139	0.0	1.4	14.627	B

	3 - A249 onslip (NB)			921				260				
	4 - B2005 - link	351	88	0	1530	0.229	349	921	0.0	0.3	3.048	A
2 - South	1 - A249 onslip (SB)			478				549				
	2 - B2005 - link	923	231	127	1768	0.522	918	351	0.0	1.1	4.218	A
	3 - A249 offslip (SB)	429	107	1046	646	0.664	422	0	0.0	1.9	15.548	C
	4 - Swale Way	528	132	382	655	0.806	513	1085	0.0	3.6	23.493	C
	5 - Grovehurst Road	460	115	575	677	0.680	452	320	0.0	2.0	15.519	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	783	196	408	840	0.933	760	0	2.7	8.5	37.368	E
	2 - Grovehurst Road	396	99	1005	468	0.846	384	163	1.4	4.3	38.551	E
	3 - A249 onslip (NB)			1085				303				
	4 - B2005 - link	408	102	0	1530	0.267	408	1085	0.3	0.4	3.208	A
2 - South	1 - A249 onslip (SB)			558				639				
	2 - B2005 - link	1087	272	150	1755	0.620	1085	409	1.1	1.6	5.359	A
	3 - A249 offslip (SB)	512	128	1235	498	1.029	468	0	1.9	13.0	77.246	F
	4 - Swale Way	630	158	442	626	1.007	592	1262	3.6	13.3	67.781	F
	5 - Grovehurst Road	549	137	665	610	0.901	532	368	2.0	6.3	39.861	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	959	240	432	823	1.166	815	0	8.5	44.5	131.180	F
	2 - Grovehurst Road	484	121	1074	422	1.149	411	173	4.3	22.6	139.736	F
	3 - A249 onslip (NB)			1164				321				
	4 - B2005 - link	432	108	0	1530	0.282	432	1164	0.4	0.4	3.278	A
2 - South	1 - A249 onslip (SB)			595				679				
	2 - B2005 - link	1166	291	162	1748	0.667	1164	433	1.6	2.0	6.154	A
	3 - A249 offslip (SB)	628	157	1327	427	1.471	425	0	13.0	63.5	343.252	F
	4 - Swale Way	772	193	448	623	1.239	620	1304	13.3	51.2	202.629	F
	5 - Grovehurst Road	673	168	698	586	1.149	576	370	6.3	30.4	132.574	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	959	240	434	821	1.168	820	0	44.5	79.4	282.087	F
	2 - Grovehurst Road	484	121	1080	418	1.160	415	174	22.6	39.8	287.685	F
	3 - A249 onslip (NB)			1172				323				
	4 - B2005 - link	434	109	0	1530	0.284	434	1172	0.4	0.4	3.286	A
2 - South	1 - A249 onslip (SB)			599				683				
	2 - B2005 - link	1174	293	164	1747	0.672	1174	436	2.0	2.0	6.276	A
	3 - A249 offslip (SB)	628	157	1337	418	1.500	418	0	63.5	115.9	777.959	F
	4 - Swale Way	772	193	448	623	1.239	623	1308	51.2	88.6	415.478	F
	5 - Grovehurst Road	673	168	701	583	1.153	581	369	30.4	53.3	272.895	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	783	196	432	823	0.952	813	0	79.4	71.9	335.559	F
	2 - Grovehurst Road	396	99	1071	423	0.934	413	173	39.8	35.4	328.996	F
	3 - A249 onslip (NB)			1163				321				
	4 - B2005 - link	432	108	0	1530	0.282	432	1163	0.4	0.4	3.280	A
2 - South	1 - A249 onslip (SB)			594				679				
	2 - B2005 - link	1165	291	162	1748	0.666	1165	433	2.0	2.0	6.177	A
	3 - A249 offslip (SB)	512	128	1327	427	1.201	426	0	115.9	137.4	1080.073	F
	4 - Swale Way	630	158	448	623	1.012	621	1305	88.6	91.0	527.845	F
	5 - Grovehurst Road	549	137	699	585	0.939	574	370	53.3	47.0	314.987	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	656	164	431	823	0.796	812	0	71.9	32.8	235.586	F

1 - North	2 - Grovehurst Road	331	83	1070	424	0.781	412	173	35.4	15.2	227.705	F
	3 - A249 onslip (NB)			1162				321				
	4 - B2005 - link	431	108	0	1530	0.282	431	1162	0.4	0.4	3.275	A
	1 - A249 onslip (SB)			594				677				
2 - South	2 - B2005 - link	1164	291	162	1748	0.666	1164	432	2.0	2.0	6.166	A
	3 - A249 offslip (SB)	429	107	1326	427	1.005	426	0	137.4	138.2	1171.756	F
	4 - Swale Way	528	132	448	623	0.847	616	1304	91.0	68.8	468.088	F
	5 - Grovehurst Road	460	115	695	588	0.782	576	369	47.0	18.1	209.204	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.74	0.07	1.14	7.15	10.64			N/A	N/A
	2 - Grovehurst Road	1.35	0.05	0.46	3.44	5.46			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.08	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.88	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	3.63	0.04	0.38	9.39	19.38			N/A	N/A
	5 - Grovehurst Road	2.01	0.06	0.98	4.97	7.31			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	8.49	0.19	4.22	21.21	29.23			N/A	N/A
	2 - Grovehurst Road	4.28	0.08	1.21	11.40	16.75			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.60	0.07	1.02	3.60	4.99			N/A	N/A
	3 - A249 offslip (SB)	12.98	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	13.26	0.26	6.97	33.23	45.57			N/A	N/A
	5 - Grovehurst Road	6.25	0.15	2.88	15.66	21.75			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	44.49	16.81	41.00	70.90	81.37			N/A	N/A
	2 - Grovehurst Road	22.57	5.49	19.57	39.80	47.27			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.97	0.03	0.27	1.97	1.97			N/A	N/A
	3 - A249 offslip (SB)	63.52	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	51.23	19.76	47.40	81.39	93.30			N/A	N/A
	5 - Grovehurst Road	30.40	9.14	27.16	51.38	60.12			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	79.35	37.67	75.31	117.81	132.18			N/A	N/A
	2 - Grovehurst Road	39.82	13.27	36.13	65.84	76.47			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.30	1.26	1.65			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.02	0.03	0.26	2.02	2.02			N/A	N/A
	3 - A249 offslip (SB)	115.88	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	88.56	46.15	84.90	126.95	140.97			N/A	N/A
	5 - Grovehurst Road	53.26	20.64	49.32	84.52	96.85			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	71.95	27.85	66.72	114.54	131.25			N/A	N/A
	2 - Grovehurst Road	35.45	8.18	30.65	64.04	76.52			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.01	0.18	1.10	3.77	4.82			N/A	N/A
	3 - A249 offslip (SB)	137.36	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	90.97	42.76	86.30	135.74	152.50			N/A	N/A
	5 - Grovehurst Road	47.03	13.89	42.07	80.51	94.43			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	32.83	8.07	28.60	58.39	69.42			N/A	N/A
	2 - Grovehurst Road	15.15	0.96	10.38	33.65	43.52			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.01	0.49	1.31	3.20	3.90			N/A	N/A
	3 - A249 offslip (SB)	138.17	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	68.83	21.66	62.23	116.46	135.99			N/A	N/A
	5 - Grovehurst Road	18.08	1.87	14.01	36.55	45.53			N/A	N/A

# 2031 + K3 and WKN Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	259.45	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1729.63	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D28	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	832	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	444	100.000
	4 - Swale Way		ONE HOUR	✓	1298	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	652
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	262	523	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	484	322
	3 - A249 offslip (SB)	1	27	0	200	216
	4 - Swale Way	706	433	0	0	159
	5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	22
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	29	1
	3 - A249 offslip (SB)	0	11	0	8	4
	4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.25	474.13	102.9	160.2	F	763	1145
	2 - Grovehurst Road	0.49	13.77	0.9	3.5	B	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.61	0.6	2.2	A	540	810
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.46	3.86	0.8	1.4	A	750	1125
	3 - A249 offslip (SB)	0.66	14.00	1.9	6.0	B	407	611
	4 - Swale Way	2.28	4063.43	799.0	179.0	F	1191	1787
	5 - Grovehurst Road	0.85	33.88	5.2	28.1	D	490	735

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	626	157	492	800	0.783	613	0	0.0	3.3	18.159	C
	2 - Grovehurst Road	171	43	809	618	0.277	169	297	0.0	0.4	7.998	A

	3 - A249 onslip (NB)			630				348				
	4 - B2005 - link	494	123	0	1591	0.311	492	630	0.0	0.4	3.271	A
2 - South	1 - A249 onslip (SB)			569				495				
	2 - B2005 - link	630	157	79	1741	0.362	628	490	0.0	0.6	3.227	A
	3 - A249 offslip (SB)	334	84	706	905	0.369	332	0	0.0	0.6	6.253	A
	4 - Swale Way	977	244	452	711	1.373	701	586	0.0	69.0	188.846	F
	5 - Grovehurst Road	402	101	667	655	0.613	396	486	0.0	1.5	13.576	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	748	187	534	772	0.969	717	0	3.3	11.0	48.840	E
	2 - Grovehurst Road	204	51	918	543	0.376	203	333	0.4	0.6	10.567	B
	3 - A249 onslip (NB)			741				380				
	4 - B2005 - link	534	134	0	1591	0.336	534	741	0.4	0.5	3.407	A
2 - South	1 - A249 onslip (SB)			625				498				
	2 - B2005 - link	740	185	95	1732	0.428	740	530	0.6	0.7	3.627	A
	3 - A249 offslip (SB)	399	100	834	801	0.498	398	0	0.6	1.0	8.884	A
	4 - Swale Way	1167	292	536	665	1.754	665	696	69.0	194.4	742.833	F
	5 - Grovehurst Road	480	120	645	671	0.716	477	556	1.5	2.4	18.205	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	916	229	587	736	1.244	732	0	11.0	56.9	180.819	F
	2 - Grovehurst Road	250	62	965	513	0.487	249	354	0.6	0.9	13.540	B
	3 - A249 onslip (NB)			793				421				
	4 - B2005 - link	588	147	0	1591	0.369	587	793	0.5	0.6	3.588	A
2 - South	1 - A249 onslip (SB)			698				500				
	2 - B2005 - link	787	197	115	1721	0.458	787	583	0.7	0.8	3.853	A
	3 - A249 offslip (SB)	489	122	902	748	0.654	486	0	1.0	1.8	13.559	B
	4 - Swale Way	1429	357	605	627	2.278	627	783	194.4	394.9	1696.764	F
	5 - Grovehurst Road	588	147	620	688	0.854	578	612	2.4	4.8	30.089	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	916	229	592	733	1.250	732	0	56.9	102.9	397.085	F
	2 - Grovehurst Road	250	62	968	511	0.489	250	356	0.9	0.9	13.771	B
	3 - A249 onslip (NB)			794				424				
	4 - B2005 - link	592	148	0	1591	0.372	592	794	0.6	0.6	3.605	A
2 - South	1 - A249 onslip (SB)			704				501				
	2 - B2005 - link	788	197	116	1720	0.458	788	588	0.8	0.8	3.864	A
	3 - A249 offslip (SB)	489	122	905	745	0.656	489	0	1.8	1.9	13.995	B
	4 - Swale Way	1429	357	607	626	2.283	626	786	394.9	595.6	2738.762	F
	5 - Grovehurst Road	588	147	619	689	0.853	586	614	4.8	5.2	33.876	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	748	187	540	768	0.974	761	0	102.9	99.6	474.133	F
	2 - Grovehurst Road	204	51	956	516	0.395	205	345	0.9	0.7	11.613	B
	3 - A249 onslip (NB)			777				384				
	4 - B2005 - link	539	135	0	1591	0.339	540	777	0.6	0.5	3.425	A
2 - South	1 - A249 onslip (SB)			632				497				
	2 - B2005 - link	778	194	97	1730	0.449	778	535	0.8	0.8	3.781	A
	3 - A249 offslip (SB)	399	100	875	768	0.520	402	0	1.9	1.1	9.923	A
	4 - Swale Way	1167	292	555	655	1.781	655	722	595.6	723.6	3548.707	F
	5 - Grovehurst Road	480	120	639	676	0.711	490	571	5.2	2.6	20.407	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	626	157	492	801	0.782	793	0	99.6	58.1	360.232	F



1 - North	2 - Grovehurst Road	171	43	949	518	0.330	172	336	0.7	0.5	10.420	B
	3 - A249 onslip (NB)			772				348				
	4 - B2005 - link	492	123	0	1591	0.309	492	772	0.5	0.4	3.276	A
2 - South	1 - A249 onslip (SB)			568				490				
	2 - B2005 - link	778	194	81	1740	0.447	778	488	0.8	0.8	3.743	A
	3 - A249 offslip (SB)	334	84	859	780	0.429	336	0	1.1	0.8	8.129	A
	4 - Swale Way	977	244	518	675	1.447	675	676	723.6	799.0	4063.433	F
	5 - Grovehurst Road	402	101	652	666	0.604	406	541	2.6	1.6	14.059	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.28	0.05	0.71	9.16	14.75			N/A	N/A
	2 - Grovehurst Road	0.38	0.00	0.00	0.38	0.38			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.56	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.58	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	68.97	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.53	1.05	1.50	1.90	1.95			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.96	0.28	6.07	26.71	36.18			N/A	N/A
	2 - Grovehurst Road	0.59	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.74	0.21	0.93	1.39	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.97	0.09	0.92	1.58	1.91			N/A	N/A
	4 - Swale Way	194.40	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.36	0.09	1.43	5.42	7.48			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	56.90	26.42	53.78	84.91	95.50			N/A	N/A
	2 - Grovehurst Road	0.92	0.03	0.26	0.92	0.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.58	0.03	0.25	0.58	0.58			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.03	0.25	0.84	0.84			N/A	N/A
	3 - A249 offslip (SB)	1.81	0.03	0.28	1.81	6.01			N/A	N/A
	4 - Swale Way	394.86	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.83	0.04	0.44	13.49	24.90			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	102.86	59.20	99.59	141.49	155.20			N/A	N/A
	2 - Grovehurst Road	0.94	0.03	0.28	0.94	3.49			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.28	0.69	2.21			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.03	0.26	0.84	0.84			N/A	N/A
	3 - A249 offslip (SB)	1.86	0.03	0.28	1.86	4.62			N/A	N/A
	4 - Swale Way	595.63	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.22	0.03	0.34	10.22	28.05			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	99.62	50.96	95.38	143.98	160.23			N/A	N/A
	2 - Grovehurst Road	0.67	0.08	0.79	1.37	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.82	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.11	0.07	0.90	1.98	2.78			N/A	N/A
	4 - Swale Way	723.59	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.61	0.04	0.43	7.20	12.82			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	58.07	19.29	52.81	96.59	112.23			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.45	1.28	1.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.76	0.05	0.48	1.51	2.04			N/A	N/A
	4 - Swale Way	799.02	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.58	0.03	0.35	3.83	8.08			N/A	N/A

# 2031 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	1287.60	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1005.31	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D29	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1109	100.000
	2 - Grovehurst Road		ONE HOUR	✓	737	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	620	100.000
	4 - Swale Way		ONE HOUR	✓	769	100.000
	5 - Grovehurst Road		ONE HOUR	✓	775	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	123	0	986
		2 - Grovehurst Road	0	0	38	699
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	159	403	0

## Demand (Veh/hr)

2 - South	From		To				
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	419	0	0	1033	231
		3 - A249 offslip (SB)	1	22	0	381	216
		4 - Swale Way	462	229	0	0	78
5 - Grovehurst Road	289	313	0	173	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From		To			
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	2	0	16
		2 - Grovehurst Road	0	0	5	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	4	6	0		

## Heavy Vehicle Percentages

2 - South	From		To				
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	0	0	0	16	5
		3 - A249 offslip (SB)	0	5	0	9	3
		4 - Swale Way	36	10	0	0	9
5 - Grovehurst Road	0	1	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.39	968.71	240.8	240.8	F	1018	1526
	2 - Grovehurst Road	1.82	2594.76	335.5	195.8	F	676	1014
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.26	3.15	0.3	1.3	A	393	589
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	5.93	2.0	6.1	A	1203	1804
	3 - A249 offslip (SB)	1.53	1492.39	186.7	187.3	F	569	853
	4 - Swale Way	1.56	1639.88	250.5	159.3	F	706	1058
	5 - Grovehurst Road	1.57	1658.03	254.4	197.4	F	711	1067

## Main Results for each time segment

07:15 - 07:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	835	209	380	890	0.938	800	0	0.0	8.8	32.417	D
	2 - Grovehurst Road	555	139	984	501	1.108	476	196	0.0	19.6	92.507	F
	3 - A249 onslip (NB)			1163				297				
	4 - B2005 - link	382	95	0	1539	0.248	380	1163	0.0	0.3	3.105	A
2 - South	1 - A249 onslip (SB)			502				798				
	2 - B2005 - link	1163	291	118	1820	0.639	1156	384	0.0	1.7	5.367	A
	3 - A249 offslip (SB)	467	117	1274	492	0.950	436	0	0.0	7.8	50.244	F
	4 - Swale Way	579	145	614	555	1.043	520	1096	0.0	14.8	68.580	F
	5 - Grovehurst Road	583	146	771	569	1.026	529	363	0.0	13.5	63.316	F

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	997	249	394	880	1.133	871	0	8.8	40.5	115.936	F
	2 - Grovehurst Road	663	166	1057	452	1.465	451	208	19.6	72.4	384.650	F
	3 - A249 onslip (NB)			1202				306				
	4 - B2005 - link	394	99	0	1539	0.256	394	1202	0.3	0.3	3.144	A
2 - South	1 - A249 onslip (SB)			518				829				
	2 - B2005 - link	1208	302	121	1818	0.664	1207	396	1.7	1.9	5.877	A
	3 - A249 offslip (SB)	557	139	1328	450	1.238	446	0	7.8	35.7	196.179	F
	4 - Swale Way	691	173	638	544	1.271	541	1136	14.8	52.3	239.132	F
	5 - Grovehurst Road	697	174	803	546	1.276	543	376	13.5	51.8	232.936	F

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1221	305	395	880	1.388	879	0	40.5	126.0	349.636	F
	2 - Grovehurst Road	811	203	1065	447	1.816	447	209	72.4	163.6	963.203	F
	3 - A249 onslip (NB)			1205				306				
	4 - B2005 - link	395	99	0	1539	0.257	395	1205	0.3	0.3	3.146	A
2 - South	1 - A249 onslip (SB)			519				831				
	2 - B2005 - link	1211	303	121	1818	0.666	1211	397	1.9	2.0	5.929	A
	3 - A249 offslip (SB)	683	171	1333	447	1.529	446	0	35.7	94.9	541.001	F
	4 - Swale Way	847	212	640	543	1.560	543	1139	52.3	128.3	610.116	F
	5 - Grovehurst Road	853	213	806	544	1.568	544	377	51.8	129.1	609.903	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1221	305	395	880	1.388	879	0	126.0	211.4	697.019	F
	2 - Grovehurst Road	811	203	1065	447	1.817	446	209	163.6	254.9	1697.324	F
	3 - A249 onslip (NB)			1205				306				
	4 - B2005 - link	395	99	0	1539	0.257	395	1205	0.3	0.3	3.146	A
2 - South	1 - A249 onslip (SB)			519				831				
	2 - B2005 - link	1212	303	121	1818	0.666	1212	397	2.0	2.0	5.933	A
	3 - A249 offslip (SB)	683	171	1333	446	1.530	446	0	94.9	154.0	1015.005	F
	4 - Swale Way	847	212	640	543	1.560	543	1139	128.3	204.3	1112.352	F
	5 - Grovehurst Road	853	213	806	544	1.568	544	377	129.1	206.4	1119.152	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	997	249	395	880	1.134	879	0	211.4	240.8	931.319	F
	2 - Grovehurst Road	663	166	1065	447	1.484	447	209	254.9	308.9	2275.840	F
	3 - A249 onslip (NB)			1205				306				
	4 - B2005 - link	395	99	0	1539	0.257	395	1205	0.3	0.3	3.146	A
2 - South	1 - A249 onslip (SB)			519				831				
	2 - B2005 - link	1212	303	121	1818	0.666	1212	397	2.0	2.0	5.933	A
	3 - A249 offslip (SB)	557	139	1333	446	1.249	446	0	154.0	181.8	1363.538	F
	4 - Swale Way	691	173	640	543	1.274	543	1139	204.3	241.5	1486.970	F
	5 - Grovehurst Road	697	174	806	544	1.280	544	377	206.4	244.6	1500.089	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	835	209	395	879	0.949	876	0	240.8	230.5	968.710	F
	2 - Grovehurst Road	555	139	1062	449	1.237	449	209	308.9	335.5	2594.758	F
	3 - A249 onslip (NB)			1204				306				
	4 - B2005 - link	395	99	0	1539	0.257	395	1204	0.3	0.3	3.146	A
2 - South	1 - A249 onslip (SB)			519				831				
	2 - B2005 - link	1210	303	121	1818	0.666	1210	397	2.0	2.0	5.919	A
	3 - A249 offslip (SB)	467	117	1332	447	1.043	447	0	181.8	186.7	1492.392	F
	4 - Swale Way	579	145	640	543	1.067	543	1139	241.5	250.5	1639.883	F
	5 - Grovehurst Road	583	146	805	544	1.072	544	377	244.6	254.4	1658.034	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	8.85	0.03	0.28	8.85	10.37			N/A	N/A
	2 - Grovehurst Road	19.64	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.74	1.05	1.50	1.90	1.95			N/A	N/A
	3 - A249 offslip (SB)	7.79	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	14.77	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	13.50	>199	>199	>199	>199			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	40.45	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	72.44	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.94	0.08	1.21	4.42	6.11			N/A	N/A
	3 - A249 offslip (SB)	35.74	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	52.25	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	51.85	>199	>199	>199	>199			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	125.96	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	163.63	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.97	0.03	0.27	1.97	1.97			N/A	N/A
	3 - A249 offslip (SB)	94.86	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	128.29	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	129.14	>199	>199	>199	>199			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	211.36	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	254.88	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.03	0.31	1.18	1.25			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.98	0.03	0.26	1.98	1.98			N/A	N/A
	3 - A249 offslip (SB)	153.96	>199	>199	>199	>199			N/A	N/A

	<b>4 - Swale Way</b>	204.30	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	206.43	>199	>199	>199	>199			N/A	N/A

**08:15 - 08:30**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	240.76	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	308.89	>199	>199	>199	>199			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.34	0.00	0.00	0.34	0.34			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	1.99	0.11	1.41	4.09	5.51			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	181.75	>199	>199	>199	>199			N/A	N/A
	<b>4 - Swale Way</b>	241.46	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	244.57	>199	>199	>199	>199			N/A	N/A

**08:30 - 08:45**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	230.53	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	335.45	>199	>199	>199	>199			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.34	0.00	0.00	0.34	0.34			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	1.99	0.23	1.16	3.56	4.48			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	186.66	>199	>199	>199	>199			N/A	N/A
	<b>4 - Swale Way</b>	250.53	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	254.37	>199	>199	>199	>199			N/A	N/A

# 2031 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	1084.34	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	2487.54	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D30	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1192	100.000
	2 - Grovehurst Road		ONE HOUR	✓	389	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	529	100.000
	4 - Swale Way		ONE HOUR	✓	1376	100.000
	5 - Grovehurst Road		ONE HOUR	✓	613	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -



1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	430	0	762
		2 - Grovehurst Road	0	0	34	355
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	277	560	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	187	0	0	524	402
		3 - A249 offslip (SB)	1	39	0	202	287
		4 - Swale Way	780	435	0	0	161
	5 - Grovehurst Road	150	356	0	107	0	

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	0	0	19
		2 - Grovehurst Road	0	0	0	0
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0	

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	1	0	0	27	1
		3 - A249 offslip (SB)	0	8	0	8	3
		4 - Swale Way	17	3	0	0	3
	5 - Grovehurst Road	0	1	0	4	0	

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.71	1877.99	442.7	178.3	F	1094	1641
	2 - Grovehurst Road	0.73	22.96	2.6	13.2	C	357	535
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.60	0.6	2.3	A	539	809
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.48	3.93	0.9	1.5	A	824	1235
	3 - A249 offslip (SB)	0.81	26.42	4.1	20.5	D	485	728
	4 - Swale Way	2.93	6015.44	1052.3	180.3	F	1263	1894
	5 - Grovehurst Road	0.98	87.19	15.7	60.4	F	562	844

## Main Results for each time segment

16:15 - 16:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	897	224	481	846	1.061	809	0	0.0	22.1	62.591	F
	2 - Grovehurst Road	293	73	839	610	0.480	289	451	0.0	0.9	11.111	B
	3 - A249 onslip (NB)			781				347				
	4 - B2005 - link	483	121	0	1591	0.304	481	781	0.0	0.4	3.242	A
2 - South	1 - A249 onslip (SB)			561				583				
	2 - B2005 - link	777	194	79	1799	0.432	774	482	0.0	0.8	3.502	A
	3 - A249 offslip (SB)	398	100	853	813	0.490	394	0	0.0	0.9	8.535	A
	4 - Swale Way	1036	259	653	607	1.706	602	594	0.0	108.5	341.464	F
	5 - Grovehurst Road	461	115	691	655	0.705	453	564	0.0	2.2	17.135	C

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1072	268	530	812	1.320	810	0	22.1	87.4	257.387	F
	2 - Grovehurst Road	350	87	872	590	0.593	348	468	0.9	1.4	14.754	B
	3 - A249 onslip (NB)			835				385				
	4 - B2005 - link	530	133	0	1591	0.333	530	835	0.4	0.5	3.394	A
2 - South	1 - A249 onslip (SB)			624				593				
	2 - B2005 - link	824	206	95	1790	0.461	824	529	0.8	0.8	3.726	A
	3 - A249 offslip (SB)	476	119	919	760	0.626	473	0	0.9	1.6	12.408	B
	4 - Swale Way	1237	309	728	566	2.186	566	663	108.5	276.3	1303.314	F
	5 - Grovehurst Road	551	138	674	667	0.826	544	620	2.2	4.1	27.486	D

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1312	328	581	776	1.692	776	0	87.4	221.6	727.312	F
	2 - Grovehurst Road	428	107	884	584	0.733	424	472	1.4	2.5	21.790	C
	3 - A249 onslip (NB)			883				425				
	4 - B2005 - link	581	145	0	1591	0.365	581	883	0.5	0.6	3.564	A
2 - South	1 - A249 onslip (SB)			693				598				
	2 - B2005 - link	863	216	112	1780	0.485	862	580	0.8	0.9	3.922	A
	3 - A249 offslip (SB)	582	146	975	717	0.813	574	0	1.6	3.8	23.802	C
	4 - Swale Way	1515	379	811	520	2.913	520	737	276.3	525.0	2781.231	F
	5 - Grovehurst Road	675	169	648	686	0.984	644	684	4.1	11.9	59.404	F

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1312	328	590	769	1.706	769	0	221.6	357.4	1361.341	F
	2 - Grovehurst Road	428	107	886	584	0.734	428	473	2.5	2.6	22.956	C
	3 - A249 onslip (NB)			882				432				
	4 - B2005 - link	590	148	0	1591	0.371	590	882	0.6	0.6	3.597	A
2 - South	1 - A249 onslip (SB)			705				601				
	2 - B2005 - link	861	215	115	1778	0.485	861	590	0.9	0.9	3.927	A
	3 - A249 offslip (SB)	582	146	977	715	0.814	581	0	3.8	4.1	26.419	D
	4 - Swale Way	1515	379	815	518	2.926	518	743	525.0	774.4	4092.077	F
	5 - Grovehurst Road	675	169	646	687	0.983	660	687	11.9	15.7	87.191	F

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1072	268	558	792	1.354	792	0	357.4	427.4	1742.690	F
	2 - Grovehurst Road	350	87	879	586	0.596	354	470	2.6	1.5	15.776	C
	3 - A249 onslip (NB)			829				404				
	4 - B2005 - link	558	139	0	1591	0.351	558	829	0.6	0.5	3.486	A
2 - South	1 - A249 onslip (SB)			661				603				
	2 - B2005 - link	817	204	103	1785	0.458	817	557	0.9	0.9	3.722	A
	3 - A249 offslip (SB)	476	119	921	759	0.626	485	0	4.1	1.7	13.530	B
	4 - Swale Way	1237	309	732	564	2.195	564	673	774.4	942.7	5229.615	F
	5 - Grovehurst Road	551	138	672	669	0.824	592	624	15.7	5.6	54.995	F

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	897	224	495	836	1.073	836	0	427.4	442.7	1877.994	F
	2 - Grovehurst Road	293	73	866	592	0.495	295	465	1.5	1.0	12.203	B
	3 - A249 onslip (NB)			804				357				
	4 - B2005 - link	494	124	0	1591	0.311	495	804	0.5	0.5	3.285	A
2 - South	1 - A249 onslip (SB)			576				590				
	2 - B2005 - link	800	200	83	1797	0.445	800	494	0.9	0.8	3.611	A
	3 - A249 offslip (SB)	398	100	882	789	0.505	401	0	1.7	1.0	9.346	A
	4 - Swale Way	1036	259	671	598	1.733	598	612	942.7	1052.3	6015.440	F
	5 - Grovehurst Road	461	115	692	654	0.705	474	576	5.6	2.6	21.109	C

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	22.06	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.90	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.75	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.94	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	108.53	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.24	0.73	1.65	2.96	3.54			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	87.42	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.40	0.11	1.15	2.61	3.38			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.00	0.00	0.50	0.50			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.18	0.94	1.43	1.49			N/A	N/A
	3 - A249 offslip (SB)	1.61	0.07	1.00	3.66	5.11			N/A	N/A
	4 - Swale Way	276.32	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.09	0.14	1.93	9.74	13.35			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	221.60	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	2.53	0.03	0.32	4.55	13.23			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.57	0.03	0.25	0.57	0.57			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.93	0.03	0.25	0.93	0.93			N/A	N/A
	3 - A249 offslip (SB)	3.82	0.04	0.37	9.38	20.52			N/A	N/A
	4 - Swale Way	525.04	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	11.94	0.27	6.48	29.44	40.07			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	357.43	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	2.63	0.03	0.29	2.63	10.21			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.28	0.78	2.29			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.94	0.03	0.26	0.94	0.94			N/A	N/A
	3 - A249 offslip (SB)	4.07	0.03	0.31	5.23	19.70			N/A	N/A

	4 - Swale Way	774.37	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	15.73	0.17	6.51	42.23	60.38			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	427.42	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.53	0.05	0.50	3.88	5.99			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.54	0.54	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.74	0.04	0.44	4.64	7.69			N/A	N/A
	4 - Swale Way	942.72	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.60	0.05	0.49	16.06	28.08			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	442.70	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.00	0.04	0.39	2.50	4.26			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.04	0.03	0.34	2.44	5.11			N/A	N/A
	4 - Swale Way	1052.30	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.55	0.03	0.34	5.68	13.64			N/A	N/A

# 2031 + WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	1325.38	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1033.37	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D31	2031 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1116	100.000
	2 - Grovehurst Road		ONE HOUR	✓	737	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	620	100.000
	4 - Swale Way		ONE HOUR	✓	776	100.000
	5 - Grovehurst Road		ONE HOUR	✓	775	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	123	0	993
		2 - Grovehurst Road	0	0	38	699
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	159	403	0

## Demand (Veh/hr)

2 - South	From		To				
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	419	0	0	1040	231
		3 - A249 offslip (SB)	1	22	0	381	216
		4 - Swale Way	469	229	0	0	78
5 - Grovehurst Road	289	313	0	173	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From		To			
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	2	0	17
		2 - Grovehurst Road	0	0	5	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	4	6	0		

## Heavy Vehicle Percentages

2 - South	From		To				
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	0	0	0	16	5
		3 - A249 offslip (SB)	0	5	0	9	3
		4 - Swale Way	37	10	0	0	9
5 - Grovehurst Road	0	1	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.41	1031.12	253.3	253.3	F	1024	1536
	2 - Grovehurst Road	1.82	2615.81	337.6	195.8	F	676	1014
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.26	3.14	0.3	1.2	A	390	585
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	5.96	2.0	6.2	A	1205	1808
	3 - A249 offslip (SB)	1.54	1516.25	189.1	187.3	F	569	853
	4 - Swale Way	1.58	1721.62	262.8	158.5	F	712	1068
	5 - Grovehurst Road	1.57	1667.58	255.6	197.4	F	711	1067

## Main Results for each time segment

07:15 - 07:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	840	210	378	884	0.950	802	0	0.0	9.7	34.567	D
	2 - Grovehurst Road	555	139	984	496	1.119	473	195	0.0	20.5	96.340	F
	3 - A249 onslip (NB)			1162				296				
	4 - B2005 - link	380	95	0	1539	0.247	378	1162	0.0	0.3	3.100	A
2 - South	1 - A249 onslip (SB)			500				800				
	2 - B2005 - link	1169	292	118	1820	0.642	1162	382	0.0	1.8	5.412	A
	3 - A249 offslip (SB)	467	117	1280	487	0.958	434	0	0.0	8.2	52.128	F
	4 - Swale Way	584	146	614	552	1.058	520	1100	0.0	16.1	73.021	F
	5 - Grovehurst Road	583	146	772	566	1.031	528	362	0.0	13.9	64.681	F

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1003	251	392	875	1.147	867	0	9.7	43.8	124.725	F
	2 - Grovehurst Road	663	166	1052	451	1.471	450	206	20.5	73.7	394.323	F
	3 - A249 onslip (NB)			1198				304				
	4 - B2005 - link	392	98	0	1539	0.255	392	1198	0.3	0.3	3.137	A
2 - South	1 - A249 onslip (SB)			515				829				
	2 - B2005 - link	1210	303	121	1818	0.666	1209	394	1.8	2.0	5.904	A
	3 - A249 offslip (SB)	557	139	1331	448	1.244	444	0	8.2	36.6	201.640	F
	4 - Swale Way	698	174	636	541	1.288	540	1138	16.1	55.6	255.207	F
	5 - Grovehurst Road	697	174	802	545	1.279	542	374	13.9	52.4	236.262	F

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1229	307	392	874	1.405	874	0	43.8	132.4	371.540	F
	2 - Grovehurst Road	811	203	1059	446	1.820	446	207	73.7	165.1	976.051	F
	3 - A249 onslip (NB)			1201				304				
	4 - B2005 - link	392	98	0	1539	0.255	392	1201	0.3	0.3	3.139	A
2 - South	1 - A249 onslip (SB)			516				831				
	2 - B2005 - link	1213	303	121	1818	0.667	1213	395	2.0	2.0	5.951	A
	3 - A249 offslip (SB)	683	171	1335	445	1.535	445	0	36.6	96.1	551.217	F
	4 - Swale Way	854	214	638	541	1.580	540	1141	55.6	134.1	642.886	F
	5 - Grovehurst Road	853	213	803	544	1.570	543	375	52.4	129.9	614.898	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1229	307	392	874	1.405	874	0	132.4	221.0	734.222	F
	2 - Grovehurst Road	811	203	1059	446	1.821	446	207	165.1	256.6	1713.081	F
	3 - A249 onslip (NB)			1201				304				
	4 - B2005 - link	392	98	0	1539	0.255	392	1201	0.3	0.3	3.139	A
2 - South	1 - A249 onslip (SB)			516				831				
	2 - B2005 - link	1214	303	121	1818	0.668	1214	395	2.0	2.0	5.956	A
	3 - A249 offslip (SB)	683	171	1335	445	1.535	445	0	96.1	155.6	1030.322	F
	4 - Swale Way	854	214	638	541	1.581	541	1141	134.1	212.6	1163.583	F
	5 - Grovehurst Road	853	213	804	544	1.570	544	375	129.9	207.3	1125.844	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1003	251	392	874	1.147	874	0	221.0	253.3	982.325	F
	2 - Grovehurst Road	663	166	1059	446	1.486	446	207	256.6	310.8	2294.420	F
	3 - A249 onslip (NB)			1201				304				
	4 - B2005 - link	392	98	0	1539	0.255	392	1201	0.3	0.3	3.139	A
2 - South	1 - A249 onslip (SB)			516				831				
	2 - B2005 - link	1214	303	121	1818	0.668	1214	395	2.0	2.0	5.956	A
	3 - A249 offslip (SB)	557	139	1335	445	1.254	445	0	155.6	183.8	1383.469	F
	4 - Swale Way	698	174	638	541	1.291	541	1141	212.6	251.8	1554.912	F
	5 - Grovehurst Road	697	174	804	544	1.282	544	375	207.3	245.6	1508.323	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	840	210	392	874	0.961	871	0	253.3	245.6	1031.123	F
	2 - Grovehurst Road	555	139	1056	448	1.239	448	207	310.8	337.6	2615.813	F
	3 - A249 onslip (NB)			1200				305				
	4 - B2005 - link	392	98	0	1539	0.255	392	1200	0.3	0.3	3.139	A
2 - South	1 - A249 onslip (SB)			516				831				
	2 - B2005 - link	1212	303	121	1818	0.667	1212	395	2.0	2.0	5.942	A
	3 - A249 offslip (SB)	467	117	1334	446	1.047	445	0	183.8	189.1	1516.246	F
	4 - Swale Way	584	146	638	541	1.081	541	1141	251.8	262.8	1721.619	F
	5 - Grovehurst Road	583	146	803	544	1.073	544	375	245.6	255.6	1667.577	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	9.67	0.03	0.27	9.67	9.67			N/A	N/A
	2 - Grovehurst Road	20.52	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.76	1.05	1.50	1.90	1.95			N/A	N/A
	3 - A249 offslip (SB)	8.16	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	16.09	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	13.86	>199	>199	>199	>199			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	43.75	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	73.72	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.96	0.08	1.21	4.46	6.18			N/A	N/A
	3 - A249 offslip (SB)	36.56	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	55.62	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	52.41	>199	>199	>199	>199			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	132.44	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	165.12	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.03	0.27	1.99	1.99			N/A	N/A
	3 - A249 offslip (SB)	96.09	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	134.11	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	129.88	>199	>199	>199	>199			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	221.04	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	256.56	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.03	0.31	1.18	1.22			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.03	0.26	1.99	1.99			N/A	N/A
	3 - A249 offslip (SB)	155.60	>199	>199	>199	>199			N/A	N/A



	<b>4 - Swale Way</b>	212.58	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	207.32	>199	>199	>199	>199			N/A	N/A

**08:15 - 08:30**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	253.28	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	310.77	>199	>199	>199	>199			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.34	0.00	0.00	0.34	0.34			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	2.00	0.11	1.40	4.14	5.58			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	183.80	>199	>199	>199	>199			N/A	N/A
	<b>4 - Swale Way</b>	251.85	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	245.62	>199	>199	>199	>199			N/A	N/A

**08:30 - 08:45**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	245.59	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	337.55	>199	>199	>199	>199			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.34	0.00	0.00	0.34	0.34			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	2.00	0.22	1.16	3.59	4.54			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	189.12	>199	>199	>199	>199			N/A	N/A
	<b>4 - Swale Way</b>	262.76	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	255.59	>199	>199	>199	>199			N/A	N/A

# 2031 + WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	1083.77	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	2597.22	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D32	2031 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1194	100.000
	2 - Grovehurst Road		ONE HOUR	✓	389	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	529	100.000
	4 - Swale Way		ONE HOUR	✓	1394	100.000
	5 - Grovehurst Road		ONE HOUR	✓	613	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	430	0	764
		2 - Grovehurst Road	0	0	34	355
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	277	561	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	187	0	0	526	402
		3 - A249 offslip (SB)	1	39	0	202	287
		4 - Swale Way	797	436	0	0	161
	5 - Grovehurst Road	150	356	0	107	0	

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	0	0	19
		2 - Grovehurst Road	0	0	0	0
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0	

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	1	0	0	27	1
		3 - A249 offslip (SB)	0	8	0	8	3
		4 - Swale Way	18	3	0	0	3
	5 - Grovehurst Road	0	1	0	4	0	

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.70	1872.95	442.5	178.3	F	1096	1643
	2 - Grovehurst Road	0.73	22.98	2.6	13.2	C	357	535
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.59	0.6	2.3	A	536	805
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.49	3.94	0.9	1.5	A	825	1238
	3 - A249 offslip (SB)	0.82	26.68	4.1	20.7	D	485	728
	4 - Swale Way	2.98	6217.64	1081.9	179.3	F	1279	1919
	5 - Grovehurst Road	0.99	87.98	15.9	60.5	F	562	844

## Main Results for each time segment

16:15 - 16:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	899	225	478	848	1.060	811	0	0.0	22.0	62.274	F
	2 - Grovehurst Road	293	73	839	610	0.480	289	450	0.0	0.9	11.112	B
	3 - A249 onslip (NB)			783				345				
	4 - B2005 - link	480	120	0	1591	0.302	478	783	0.0	0.4	3.233	A
2 - South	1 - A249 onslip (SB)			558				584				
	2 - B2005 - link	778	195	79	1798	0.433	775	479	0.0	0.8	3.509	A
	3 - A249 offslip (SB)	398	100	854	811	0.491	394	0	0.0	0.9	8.565	A
	4 - Swale Way	1049	262	653	604	1.738	599	595	0.0	112.7	356.514	F
	5 - Grovehurst Road	461	115	689	654	0.706	453	563	0.0	2.2	17.207	C

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1073	268	527	814	1.319	812	0	22.0	87.3	256.240	F
	2 - Grovehurst Road	350	87	872	589	0.593	348	467	0.9	1.4	14.763	B
	3 - A249 onslip (NB)			837				383				
	4 - B2005 - link	527	132	0	1591	0.331	527	837	0.4	0.5	3.384	A
2 - South	1 - A249 onslip (SB)			621				594				
	2 - B2005 - link	826	207	95	1789	0.462	826	527	0.8	0.9	3.734	A
	3 - A249 offslip (SB)	476	119	921	759	0.627	473	0	0.9	1.6	12.471	B
	4 - Swale Way	1253	313	729	563	2.228	563	665	112.7	285.4	1356.682	F
	5 - Grovehurst Road	551	138	672	666	0.827	544	619	2.2	4.1	27.628	D

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1315	329	578	778	1.690	778	0	87.3	221.5	724.977	F
	2 - Grovehurst Road	428	107	884	584	0.733	424	471	1.4	2.5	21.809	C
	3 - A249 onslip (NB)			884				424				
	4 - B2005 - link	578	144	0	1591	0.363	578	884	0.5	0.6	3.554	A
2 - South	1 - A249 onslip (SB)			690				599				
	2 - B2005 - link	864	216	112	1779	0.486	864	578	0.9	0.9	3.931	A
	3 - A249 offslip (SB)	582	146	976	715	0.814	574	0	1.6	3.8	23.998	C
	4 - Swale Way	1535	384	811	517	2.968	517	739	285.4	539.8	2880.190	F
	5 - Grovehurst Road	675	169	646	685	0.985	643	682	4.1	12.0	59.794	F

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1315	329	587	771	1.705	771	0	221.5	357.4	1357.703	F
	2 - Grovehurst Road	428	107	886	583	0.734	428	472	2.5	2.6	22.980	C
	3 - A249 onslip (NB)			884				430				
	4 - B2005 - link	587	147	0	1591	0.369	587	884	0.6	0.6	3.587	A
2 - South	1 - A249 onslip (SB)			702				602				
	2 - B2005 - link	863	216	115	1778	0.486	863	587	0.9	0.9	3.936	A
	3 - A249 offslip (SB)	582	146	978	714	0.816	581	0	3.8	4.1	26.680	D
	4 - Swale Way	1535	384	815	515	2.982	515	744	539.8	794.8	4221.976	F
	5 - Grovehurst Road	675	169	644	686	0.984	660	686	12.0	15.9	87.979	F

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1073	268	555	793	1.353	793	0	357.4	427.4	1738.573	F
	2 - Grovehurst Road	350	87	880	586	0.597	354	469	2.6	1.5	15.789	C
	3 - A249 onslip (NB)			831				403				
	4 - B2005 - link	555	139	0	1591	0.349	555	831	0.6	0.5	3.477	A
2 - South	1 - A249 onslip (SB)			658				603				
	2 - B2005 - link	819	205	103	1784	0.459	819	555	0.9	0.9	3.729	A
	3 - A249 offslip (SB)	476	119	922	758	0.627	485	0	4.1	1.7	13.615	B
	4 - Swale Way	1253	313	732	560	2.237	560	675	794.8	968.1	5399.119	F
	5 - Grovehurst Road	551	138	670	668	0.825	592	623	15.9	5.6	55.784	F

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	899	225	492	838	1.072	838	0	427.4	442.5	1872.954	F
	2 - Grovehurst Road	293	73	866	592	0.495	295	464	1.5	1.0	12.209	B
	3 - A249 onslip (NB)			806				355				
	4 - B2005 - link	491	123	0	1591	0.309	492	806	0.5	0.4	3.276	A
2 - South	1 - A249 onslip (SB)			573				591				
	2 - B2005 - link	801	200	83	1796	0.446	801	491	0.9	0.8	3.618	A
	3 - A249 offslip (SB)	398	100	884	787	0.506	401	0	1.7	1.0	9.387	A
	4 - Swale Way	1049	262	671	594	1.767	594	614	968.1	1081.9	6217.641	F
	5 - Grovehurst Road	461	115	690	653	0.706	474	575	5.6	2.6	21.237	C

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	21.97	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.90	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.76	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.95	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	112.74	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.25	0.74	1.65	2.97	3.57			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	87.27	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.41	0.11	1.15	2.61	3.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.49	0.00	0.00	0.49	0.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.18	0.94	1.43	1.50			N/A	N/A
	3 - A249 offslip (SB)	1.62	0.07	1.00	3.68	5.16			N/A	N/A
	4 - Swale Way	285.40	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.11	0.14	1.94	9.79	13.41			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	221.52	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	2.53	0.03	0.32	4.57	13.25			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.57	0.03	0.25	0.57	0.57			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.94	0.03	0.25	0.94	0.94			N/A	N/A
	3 - A249 offslip (SB)	3.85	0.04	0.37	9.54	20.70			N/A	N/A
	4 - Swale Way	539.82	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	12.03	0.28	6.60	29.59	40.22			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	357.42	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	2.64	0.03	0.29	2.64	10.24			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.58	0.03	0.28	0.82	2.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.94	0.03	0.26	0.94	0.94			N/A	N/A
	3 - A249 offslip (SB)	4.11	0.03	0.31	5.40	19.98			N/A	N/A

	4 - Swale Way	794.85	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	15.88	0.18	6.70	42.46	60.50			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	427.40	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.54	0.05	0.50	3.89	6.00			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.54	0.54	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.75	0.04	0.44	4.67	7.76			N/A	N/A
	4 - Swale Way	968.07	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.65	0.05	0.49	16.21	28.29			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	442.54	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.00	0.04	0.39	2.51	4.26			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.04	0.03	0.34	2.44	5.15			N/A	N/A
	4 - Swale Way	1081.91	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.56	0.03	0.34	5.70	13.70			N/A	N/A

# 2031 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	1328.29	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1044.53	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D33	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1118	100.000
	2 - Grovehurst Road		ONE HOUR	✓	737	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	620	100.000
	4 - Swale Way		ONE HOUR	✓	779	100.000
	5 - Grovehurst Road		ONE HOUR	✓	775	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	123	0	995
		2 - Grovehurst Road	0	0	38	699
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	159	403	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	419	0	0	1042	231
		3 - A249 offslip (SB)	1	22	0	381	216
		4 - Swale Way	472	229	0	0	78
5 - Grovehurst Road	289	313	0	173	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	2	0	17
		2 - Grovehurst Road	0	0	5	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	4	6	0		

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	0	0	0	16	5
		3 - A249 offslip (SB)	0	5	0	9	3
		4 - Swale Way	38	10	0	0	1
5 - Grovehurst Road	0	1	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.41	1034.46	254.3	254.3	F	1026	1539
	2 - Grovehurst Road	1.82	2617.87	337.8	195.8	F	676	1014
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.25	3.14	0.3	1.2	A	389	583
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	5.96	2.0	6.2	A	1206	1809
	3 - A249 offslip (SB)	1.54	1521.31	189.6	187.3	F	569	853
	4 - Swale Way	1.58	1736.41	265.6	158.6	F	715	1072
	5 - Grovehurst Road	1.58	1699.40	259.4	197.4	F	711	1067

## Main Results for each time segment

07:15 - 07:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay



Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	842	210	377	885	0.951	803	0	0.0	9.8	34.736	D
	2 - Grovehurst Road	555	139	985	495	1.120	472	195	0.0	20.6	96.686	F
	3 - A249 onslip (NB)			1162				295				
	4 - B2005 - link	379	95	0	1539	0.246	377	1162	0.0	0.3	3.097	A
2 - South	1 - A249 onslip (SB)			499				801				
	2 - B2005 - link	1170	292	117	1820	0.643	1163	381	0.0	1.8	5.419	A
	3 - A249 offslip (SB)	467	117	1280	487	0.959	434	0	0.0	8.2	52.355	F
	4 - Swale Way	586	147	614	553	1.061	521	1100	0.0	16.4	73.730	F
	5 - Grovehurst Road	583	146	773	563	1.036	526	362	0.0	14.3	66.312	F

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1005	251	390	876	1.147	868	0	9.8	44.0	125.272	F
	2 - Grovehurst Road	663	166	1052	450	1.471	450	206	20.6	73.8	395.190	F
	3 - A249 onslip (NB)			1199				303				
	4 - B2005 - link	390	98	0	1539	0.254	390	1199	0.3	0.3	3.133	A
2 - South	1 - A249 onslip (SB)			513				829				
	2 - B2005 - link	1211	303	121	1818	0.666	1210	393	1.8	2.0	5.912	A
	3 - A249 offslip (SB)	557	139	1331	448	1.245	443	0	8.2	36.7	202.499	F
	4 - Swale Way	700	175	636	542	1.291	540	1138	16.4	56.3	257.987	F
	5 - Grovehurst Road	697	174	802	542	1.285	540	374	14.3	53.5	242.327	F

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1231	308	391	875	1.406	875	0	44.0	133.0	372.776	F
	2 - Grovehurst Road	811	203	1059	446	1.820	446	207	73.8	165.3	977.243	F
	3 - A249 onslip (NB)			1202				303				
	4 - B2005 - link	391	98	0	1539	0.254	391	1202	0.3	0.3	3.135	A
2 - South	1 - A249 onslip (SB)			514				831				
	2 - B2005 - link	1214	304	121	1818	0.668	1214	393	2.0	2.0	5.959	A
	3 - A249 offslip (SB)	683	171	1335	444	1.536	444	0	36.7	96.3	553.131	F
	4 - Swale Way	858	214	638	541	1.584	541	1141	56.3	135.4	648.718	F
	5 - Grovehurst Road	853	213	804	541	1.578	541	375	53.5	131.7	627.506	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1231	308	391	875	1.406	875	0	133.0	221.9	736.250	F
	2 - Grovehurst Road	811	203	1059	446	1.821	446	207	165.3	256.7	1714.591	F
	3 - A249 onslip (NB)			1202				303				
	4 - B2005 - link	391	98	0	1539	0.254	391	1202	0.3	0.3	3.135	A
2 - South	1 - A249 onslip (SB)			514				831				
	2 - B2005 - link	1215	304	121	1818	0.668	1215	393	2.0	2.0	5.963	A
	3 - A249 offslip (SB)	683	171	1335	444	1.537	444	0	96.3	155.9	1033.425	F
	4 - Swale Way	858	214	638	541	1.584	541	1142	135.4	214.5	1172.807	F
	5 - Grovehurst Road	853	213	804	541	1.578	541	375	131.7	209.8	1145.695	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1005	251	391	875	1.148	875	0	221.9	254.3	985.068	F
	2 - Grovehurst Road	663	166	1059	446	1.487	446	207	256.7	310.9	2296.226	F
	3 - A249 onslip (NB)			1202				303				
	4 - B2005 - link	391	98	0	1539	0.254	391	1202	0.3	0.3	3.135	A
2 - South	1 - A249 onslip (SB)			514				831				
	2 - B2005 - link	1215	304	121	1818	0.668	1215	393	2.0	2.0	5.963	A
	3 - A249 offslip (SB)	557	139	1335	444	1.255	444	0	155.9	184.2	1387.645	F
	4 - Swale Way	700	175	638	541	1.294	541	1142	214.5	254.3	1567.178	F
	5 - Grovehurst Road	697	174	804	541	1.288	541	375	209.8	248.8	1534.733	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	842	210	391	875	0.962	872	0	254.3	246.8	1034.455	F
	2 - Grovehurst Road	555	139	1056	448	1.240	448	207	310.9	337.8	2617.872	F
	3 - A249 onslip (NB)			1201				303				
	4 - B2005 - link	391	98	0	1539	0.254	391	1201	0.3	0.3	3.135	A
2 - South	1 - A249 onslip (SB)			514				831				
	2 - B2005 - link	1213	303	121	1818	0.667	1213	393	2.0	2.0	5.949	A
	3 - A249 offslip (SB)	467	117	1334	445	1.048	445	0	184.2	189.6	1521.308	F
	4 - Swale Way	586	147	638	541	1.083	541	1141	254.3	265.6	1736.407	F
	5 - Grovehurst Road	583	146	804	541	1.079	541	375	248.8	259.4	1699.399	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	9.75	0.03	0.27	9.75	9.75			N/A	N/A
	2 - Grovehurst Road	20.60	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.77	1.05	1.50	1.90	1.95			N/A	N/A
	3 - A249 offslip (SB)	8.20	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	16.35	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	14.29	>199	>199	>199	>199			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	44.02	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	73.84	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.96	0.08	1.21	4.47	6.20			N/A	N/A
	3 - A249 offslip (SB)	36.70	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	56.33	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	53.51	>199	>199	>199	>199			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	133.00	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	165.25	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.03	0.27	1.99	1.99			N/A	N/A
	3 - A249 offslip (SB)	96.32	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	135.45	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	131.66	>199	>199	>199	>199			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	221.89	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	256.71	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.03	0.31	1.17	1.20			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.00	0.03	0.26	2.00	2.00			N/A	N/A
	3 - A249 offslip (SB)	155.93	>199	>199	>199	>199			N/A	N/A

	<b>4 - Swale Way</b>	214.54	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	209.79	>199	>199	>199	>199			N/A	N/A

**08:15 - 08:30**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	254.32	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	310.94	>199	>199	>199	>199			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.34	0.00	0.00	0.34	0.34			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	2.00	0.11	1.40	4.17	5.61			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	184.22	>199	>199	>199	>199			N/A	N/A
	<b>4 - Swale Way</b>	254.28	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	248.78	>199	>199	>199	>199			N/A	N/A

**08:30 - 08:45**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	246.75	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	337.75	>199	>199	>199	>199			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.34	0.00	0.00	0.34	0.34			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	2.00	0.22	1.16	3.61	4.56			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	189.63	>199	>199	>199	>199			N/A	N/A
	<b>4 - Swale Way</b>	265.56	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	259.44	>199	>199	>199	>199			N/A	N/A

# 2031 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	1118.18	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	2598.38	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D34	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1197	100.000
	2 - Grovehurst Road		ONE HOUR	✓	389	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	529	100.000
	4 - Swale Way		ONE HOUR	✓	1396	100.000
	5 - Grovehurst Road		ONE HOUR	✓	613	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	430	0	767
		2 - Grovehurst Road	0	0	34	355
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	277	561	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	187	0	0	528	402
		3 - A249 offslip (SB)	1	39	0	202	287
		4 - Swale Way	799	436	0	0	161
5 - Grovehurst Road	150	356	0	107	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	0	0	20
		2 - Grovehurst Road	0	0	0	0
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	0	3	0		

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	1	0	0	28	1
		3 - A249 offslip (SB)	0	8	0	8	3
		4 - Swale Way	18	3	0	0	3
5 - Grovehurst Road	0	1	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.72	1925.84	453.1	177.3	F	1098	1648
	2 - Grovehurst Road	0.74	23.19	2.7	13.4	C	357	535
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.59	0.6	2.3	A	536	805
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.49	3.96	0.9	1.5	A	824	1236
	3 - A249 offslip (SB)	0.82	26.99	4.2	20.9	D	485	728
	4 - Swale Way	2.98	6219.54	1083.6	179.2	F	1281	1921
	5 - Grovehurst Road	0.99	88.31	15.9	60.6	F	562	844

## Main Results for each time segment

16:15 - 16:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	901	225	478	843	1.069	808	0	0.0	23.2	65.101	F
	2 - Grovehurst Road	293	73	838	607	0.482	289	448	0.0	0.9	11.188	B
	3 - A249 onslip (NB)			782				345				
	4 - B2005 - link	480	120	0	1591	0.302	478	782	0.0	0.4	3.232	A
2 - South	1 - A249 onslip (SB)			558				584				
	2 - B2005 - link	778	195	79	1790	0.435	775	479	0.0	0.8	3.536	A
	3 - A249 offslip (SB)	398	100	854	808	0.493	394	0	0.0	1.0	8.621	A
	4 - Swale Way	1051	263	653	604	1.740	599	596	0.0	113.0	357.078	F
	5 - Grovehurst Road	461	115	689	654	0.706	452	562	0.0	2.3	17.219	C

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1076	269	527	809	1.330	808	0	23.2	90.3	267.295	F
	2 - Grovehurst Road	350	87	870	588	0.595	348	464	0.9	1.4	14.853	B
	3 - A249 onslip (NB)			835				383				
	4 - B2005 - link	527	132	0	1591	0.331	527	835	0.4	0.5	3.384	A
2 - South	1 - A249 onslip (SB)			621				594				
	2 - B2005 - link	825	206	95	1781	0.463	824	526	0.8	0.9	3.759	A
	3 - A249 offslip (SB)	476	119	919	757	0.628	473	0	1.0	1.6	12.549	B
	4 - Swale Way	1255	314	727	563	2.228	563	665	113.0	286.0	1357.277	F
	5 - Grovehurst Road	551	138	672	666	0.827	544	618	2.3	4.1	27.676	D

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1318	329	578	773	1.705	773	0	90.3	226.5	748.011	F
	2 - Grovehurst Road	428	107	882	583	0.735	424	469	1.4	2.6	21.981	C
	3 - A249 onslip (NB)			882				424				
	4 - B2005 - link	578	144	0	1591	0.363	578	882	0.5	0.6	3.554	A
2 - South	1 - A249 onslip (SB)			690				599				
	2 - B2005 - link	862	216	112	1771	0.487	862	578	0.9	0.9	3.957	A
	3 - A249 offslip (SB)	582	146	974	714	0.816	573	0	1.6	3.9	24.228	C
	4 - Swale Way	1537	384	809	518	2.967	518	739	286.0	540.7	2879.870	F
	5 - Grovehurst Road	675	169	646	685	0.986	643	681	4.1	12.1	59.954	F

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1318	329	587	767	1.719	767	0	226.5	364.4	1393.767	F
	2 - Grovehurst Road	428	107	884	582	0.736	428	469	2.6	2.7	23.188	C
	3 - A249 onslip (NB)			882				430				
	4 - B2005 - link	587	147	0	1591	0.369	587	882	0.6	0.6	3.587	A
2 - South	1 - A249 onslip (SB)			702				602				
	2 - B2005 - link	861	215	115	1770	0.487	861	587	0.9	0.9	3.962	A
	3 - A249 offslip (SB)	582	146	976	712	0.818	581	0	3.9	4.2	26.988	D
	4 - Swale Way	1537	384	814	516	2.981	516	744	540.7	796.0	4222.757	F
	5 - Grovehurst Road	675	169	644	686	0.984	659	685	12.1	15.9	88.308	F

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1076	269	555	789	1.364	789	0	364.4	436.2	1782.624	F
	2 - Grovehurst Road	350	87	877	585	0.598	354	467	2.7	1.5	15.894	C
	3 - A249 onslip (NB)			829				403				
	4 - B2005 - link	555	139	0	1591	0.349	555	829	0.6	0.5	3.480	A
2 - South	1 - A249 onslip (SB)			658				604				
	2 - B2005 - link	817	204	103	1777	0.460	818	555	0.9	0.9	3.757	A
	3 - A249 offslip (SB)	476	119	921	756	0.629	485	0	4.2	1.8	13.716	B
	4 - Swale Way	1255	314	731	561	2.237	561	675	796.0	969.5	5400.549	F
	5 - Grovehurst Road	551	138	670	668	0.825	592	622	15.9	5.7	56.090	F

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	901	225	492	834	1.081	833	0	436.2	453.1	1925.840	F
	2 - Grovehurst Road	293	73	863	590	0.496	295	462	1.5	1.0	12.273	B
	3 - A249 onslip (NB)			803				355				
	4 - B2005 - link	491	123	0	1591	0.309	492	803	0.5	0.4	3.279	A
2 - South	1 - A249 onslip (SB)			573				591				
	2 - B2005 - link	800	200	83	1788	0.447	800	491	0.9	0.8	3.645	A
	3 - A249 offslip (SB)	398	100	883	786	0.507	401	0	1.8	1.0	9.433	A
	4 - Swale Way	1051	263	670	595	1.767	595	614	969.5	1083.6	6219.536	F
	5 - Grovehurst Road	461	115	690	653	0.707	474	574	5.7	2.6	21.277	C

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	23.22	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.91	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.76	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.95	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	113.03	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.25	0.74	1.65	2.97	3.57			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	90.34	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.41	0.11	1.15	2.63	3.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.49	0.00	0.00	0.49	0.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.86	0.17	0.94	1.00	1.00			N/A	N/A
	3 - A249 offslip (SB)	1.63	0.07	1.01	3.71	5.21			N/A	N/A
	4 - Swale Way	285.95	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.12	0.14	1.94	9.80	13.43			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	226.54	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	2.55	0.03	0.32	4.67	13.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.57	0.03	0.25	0.57	0.57			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.94	0.03	0.25	0.94	0.94			N/A	N/A
	3 - A249 offslip (SB)	3.89	0.04	0.37	9.72	20.90			N/A	N/A
	4 - Swale Way	540.68	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	12.07	0.29	6.64	29.65	40.27			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	364.39	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	2.66	0.03	0.29	2.66	10.41			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.58	0.03	0.28	0.82	2.31			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.94	0.03	0.26	0.94	0.94			N/A	N/A
	3 - A249 offslip (SB)	4.15	0.03	0.31	5.60	20.34			N/A	N/A

	<b>4 - Swale Way</b>	796.03	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	15.95	0.18	6.78	42.57	60.57			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	436.22	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	1.55	0.05	0.49	3.92	6.07			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.54	0.54	1.00	1.40	1.45			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	0.86	0.55	1.00	1.40	1.45			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	1.76	0.04	0.44	4.70	7.84			N/A	N/A
	<b>4 - Swale Way</b>	969.51	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	5.67	0.05	0.50	16.26	28.36			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	453.14	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	1.01	0.04	0.39	2.52	4.31			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.45	0.00	0.00	0.45	0.45			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	1.05	0.03	0.34	2.44	5.19			N/A	N/A
	<b>4 - Swale Way</b>	1083.56	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	2.57	0.03	0.34	5.71	13.72			N/A	N/A



<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
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Filename: Dumbbell\_Mitigation\_FULLLK3.j9

Path: P:\JNY9290 - Kemsley K5\Transport\Arcady\WKN DCO\North and South Dumbell Roundabouts

Report generation date: 08/07/2019 16:20:47

- »2017, AM
- »2017, PM
- »2024, AM
- »2024, PM
- »2024 + Cumulative Development, AM
- »2024 + Cumulative Development, PM
- »2024 + K3 Operational, AM
- »2024 + K3 Operational, PM
- »2024 + K3 and WKN Operational, AM
- »2024 + K3 and WKN Operational, PM
- »2024 + K3 Operational + Cumulative Development, AM
- »2024 + K3 Operational + Cumulative Development, PM
- »2024 + K3 and WKN Operational + Cumulative Development, AM
- »2024 + K3 and WKN Operational + Cumulative Development, PM
- »2031, AM
- »2031, PM
- »2031 + Cumulative Development, AM
- »2031 + Cumulative Development, PM
- »2031 + K3 Operational, AM
- »2031 + K3 Operational, PM
- »2031 + K3 and WKN Operational, AM
- »2031 + K3 and WKN Operational, PM
- »2031 + K3 Operational + Cumulative Development, AM
- »2031 + K3 Operational + Cumulative Development, PM
- »2031 + K3 and WKN Operational + Cumulative Development, AM
- »2031 + K3 and WKN Operational + Cumulative Development, PM

### Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
<b>2017</b>						
1 - North - 1 - A249 offslip (NB)	1.7	8.43	0.63	4.7	21.72	0.84
1 - North - 2 - Grovehurst Road	0.9	7.71	0.48	0.4	5.88	0.29
1 - North - 4 - B2005 - link	0.4	3.00	0.29	0.8	3.67	0.43
2 - South - 2 - B2005 - link	1.3	4.38	0.57	0.8	3.37	0.44
2 - South - 3 - A249 offslip (SB)	2.2	14.29	0.69	0.8	6.19	0.45
2 - South - 4 - Swale Way	1.5	8.84	0.60	34.1	106.63	1.04
2 - South - 5 - Grovehurst Road	1.7	9.94	0.64	2.3	14.92	0.71
<b>2024</b>						
1 - North - 1 - A249 offslip (NB)	4.7	19.20	0.83	9.7	41.91	0.93
1 - North - 2 - Grovehurst Road	2.0	15.10	0.67	0.5	6.69	0.32
1 - North - 4 - B2005 - link	0.5	3.12	0.31	0.7	3.63	0.43
2 - South - 2 - B2005 - link	2.5	6.83	0.72	1.0	3.84	0.49
2 - South - 3 - A249 offslip (SB)	44.4	226.40	1.15	1.0	7.65	0.51
2 - South - 4 - Swale Way	2.9	14.51	0.75	194.5	617.22	1.33
2 - South - 5 - Grovehurst Road	3.4	18.91	0.78	2.6	16.36	0.73

2024 + Cumulative Development						
1 - North - 1 - A249 offslip (NB)	7.4	29.29	0.90	20.7	77.50	1.00
1 - North - 2 - Grovehurst Road	2.7	20.90	0.74	0.5	7.51	0.35
1 - North - 4 - B2005 - link	0.5	3.23	0.33	0.7	3.61	0.42
2 - South - 2 - B2005 - link	2.8	7.44	0.74	1.1	4.09	0.53
2 - South - 3 - A249 offslip (SB)	71.6	359.35	1.29	1.4	9.48	0.58
2 - South - 4 - Swale Way	3.4	17.04	0.78	264.5	854.98	1.44
2 - South - 5 - Grovehurst Road	11.0	52.02	0.94	3.2	17.85	0.77
2024 + K3 Operational						
1 - North - 1 - A249 offslip (NB)	5.9	23.76	0.87	12.5	52.60	0.95
1 - North - 2 - Grovehurst Road	2.2	17.26	0.70	0.5	6.95	0.33
1 - North - 4 - B2005 - link	0.5	3.15	0.31	0.7	3.62	0.42
2 - South - 2 - B2005 - link	2.7	7.38	0.74	1.0	3.99	0.51
2 - South - 3 - A249 offslip (SB)	58.1	297.32	1.22	1.1	8.08	0.52
2 - South - 4 - Swale Way	3.4	16.39	0.78	231.1	726.70	1.38
2 - South - 5 - Grovehurst Road	3.9	21.80	0.81	2.6	16.61	0.73
2024 + K3 and WKN Operational						
1 - North - 1 - A249 offslip (NB)	6.6	26.48	0.88	12.7	53.10	0.95
1 - North - 2 - Grovehurst Road	2.4	18.37	0.71	0.5	6.95	0.33
1 - North - 4 - B2005 - link	0.5	3.15	0.31	0.7	3.58	0.42
2 - South - 2 - B2005 - link	2.9	7.68	0.75	1.0	4.03	0.51
2 - South - 3 - A249 offslip (SB)	64.5	332.25	1.26	1.1	8.17	0.53
2 - South - 4 - Swale Way	3.7	17.73	0.79	250.8	781.13	1.40
2 - South - 5 - Grovehurst Road	4.2	23.88	0.82	2.7	16.79	0.74
2024 + K3 Operational + Cumulative Development						
1 - North - 1 - A249 offslip (NB)	10.0	38.63	0.93	28.1	99.38	1.02
1 - North - 2 - Grovehurst Road	3.2	24.53	0.77	0.5	7.70	0.36
1 - North - 4 - B2005 - link	0.5	3.23	0.34	0.7	3.59	0.42
2 - South - 2 - B2005 - link	3.1	8.03	0.76	1.1	4.24	0.54
2 - South - 3 - A249 offslip (SB)	84.8	436.58	1.36	1.4	9.94	0.60
2 - South - 4 - Swale Way	3.9	19.27	0.81	302.7	1013.76	1.49
2 - South - 5 - Grovehurst Road	14.4	66.27	0.97	3.2	18.32	0.77
2024 + K3 and WKN Operational + Cumulative Development						
1 - North - 1 - A249 offslip (NB)	11.6	44.05	0.94	30.6	106.74	1.03
1 - North - 2 - Grovehurst Road	3.4	26.33	0.79	0.6	7.76	0.36
1 - North - 4 - B2005 - link	0.5	3.23	0.33	0.7	3.58	0.42
2 - South - 2 - B2005 - link	3.2	8.34	0.77	1.2	4.27	0.54
2 - South - 3 - A249 offslip (SB)	90.4	472.89	1.40	1.5	10.12	0.60
2 - South - 4 - Swale Way	4.3	21.06	0.82	325.2	1082.62	1.51
2 - South - 5 - Grovehurst Road	17.2	77.52	0.99	3.3	18.42	0.77
2031						
1 - North - 1 - A249 offslip (NB)	4.7	19.20	0.83	9.7	41.91	0.93
1 - North - 2 - Grovehurst Road	2.0	15.10	0.67	0.5	6.69	0.32
1 - North - 4 - B2005 - link	0.5	3.12	0.31	0.7	3.63	0.43
2 - South - 2 - B2005 - link	2.5	6.83	0.72	1.0	3.84	0.49
2 - South - 3 - A249 offslip (SB)	44.4	226.40	1.15	1.0	7.65	0.51
2 - South - 4 - Swale Way	2.9	14.51	0.75	194.5	617.22	1.33
2 - South - 5 - Grovehurst Road	3.4	18.91	0.78	2.6	16.36	0.73
2031 + Cumulative Development						
1 - North - 1 - A249 offslip (NB)	40.9	115.95	1.05	153.1	516.87	1.27
1 - North - 2 - Grovehurst Road	95.5	491.95	1.28	1.0	8.49	0.50
1 - North - 4 - B2005 - link	0.4	3.09	0.31	0.7	3.55	0.41
2 - South - 2 - B2005 - link	4.9	11.30	0.83	1.2	4.14	0.54
2 - South - 3 - A249 offslip (SB)	232.1	1961.28	1.82	1.9	11.91	0.66
2 - South - 4 - Swale Way	13.9	63.51	0.96	466.5	1709.09	1.70
2 - South - 5 - Grovehurst Road	114.8	553.51	1.35	4.5	25.14	0.83
2031 + K3 Operational						
1 - North - 1 - A249 offslip (NB)	5.9	23.76	0.87	12.5	52.49	0.95
1 - North - 2 - Grovehurst Road	2.2	17.26	0.70	0.5	6.94	0.33
1 - North - 4 - B2005 - link	0.5	3.15	0.31	0.7	3.62	0.42
2 - South - 2 - B2005 - link	2.7	7.38	0.74	1.0	3.99	0.51
2 - South - 3 - A249 offslip (SB)	58.1	297.32	1.22	1.1	8.08	0.52
2 - South - 4 - Swale Way	3.4	16.39	0.78	232.1	729.47	1.38
2 - South - 5 - Grovehurst Road	3.9	21.80	0.81	2.6	16.62	0.73

2031 + K3 and WKN Operational						
1 - North - 1 - A249 offslip (NB)	6.6	26.48	0.88	12.7	53.10	0.95
1 - North - 2 - Grovehurst Road	2.4	18.37	0.71	0.5	6.95	0.33
1 - North - 4 - B2005 - link	0.5	3.15	0.31	0.7	3.58	0.42
2 - South - 2 - B2005 - link	2.9	7.68	0.75	1.0	4.03	0.51
2 - South - 3 - A249 offslip (SB)	64.5	332.25	1.26	1.1	8.17	0.53
2 - South - 4 - Swale Way	3.7	17.73	0.79	250.8	781.13	1.40
2 - South - 5 - Grovehurst Road	4.2	23.88	0.82	2.7	16.79	0.74
2031 + K3 Operational + Cumulative Development						
1 - North - 1 - A249 offslip (NB)	55.2	149.53	1.08	168.5	565.98	1.29
1 - North - 2 - Grovehurst Road	104.4	546.65	1.30	1.0	8.59	0.51
1 - North - 4 - B2005 - link	0.4	3.10	0.31	0.7	3.54	0.41
2 - South - 2 - B2005 - link	5.0	11.53	0.84	1.2	4.21	0.55
2 - South - 3 - A249 offslip (SB)	246.2	2180.71	1.83	1.9	12.22	0.66
2 - South - 4 - Swale Way	18.3	79.77	0.99	504.9	1847.29	1.73
2 - South - 5 - Grovehurst Road	125.0	616.73	1.38	4.6	25.85	0.83
2031 + K3 and WKN Operational + Cumulative Development						
1 - North - 1 - A249 offslip (NB)	61.6	164.89	1.09	175.1	586.64	1.30
1 - North - 2 - Grovehurst Road	107.1	567.67	1.30	1.0	8.64	0.51
1 - North - 4 - B2005 - link	0.4	3.08	0.30	0.7	3.52	0.41
2 - South - 2 - B2005 - link	5.0	11.61	0.84	1.2	4.26	0.55
2 - South - 3 - A249 offslip (SB)	253.2	2303.87	1.84	2.0	12.44	0.67
2 - South - 4 - Swale Way	21.8	91.68	1.01	537.7	1970.03	1.77
2 - South - 5 - Grovehurst Road	137.5	678.72	1.41	4.7	26.17	0.84

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

## File summary

### File Description

Title	(untitled)
Location	
Site number	
Date	26/01/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR\Ben.Dance
Description	

## Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

## Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓			0.85	36.00	20.00

## Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓
D21	2031 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D22	2031 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D23	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D24	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D27	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D28	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D29	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D30	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D33	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D34	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

### Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

# 2017, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	6.71	A
2	South	Standard Roundabout	1, 2, 3, 4, 5	8.39	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Junction	Arm	Name	Description
1 - North	1	A249 offslip (NB)	
	2	Grovehurst Road	
	3	A249 onslip (NB)	
	4	B2005 - link	
2 - South	1	A249 onslip (SB)	
	2	B2005 - link	
	3	A249 offslip (SB)	
	4	Swale Way	
	5	Grovehurst Road	

### Roundabout Geometry

Junction	Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - North	1 - A249 offslip (NB)	7.93	9.50	56.8	13.3	45.0	27.0	
	2 - Grovehurst Road	3.66	9.50	25.3	50.9	45.0	34.0	
	3 - A249 onslip (NB)							✓
	4 - B2005 - link	4.01	8.00	13.3	20.6	45.0	41.0	
2 - South	1 - A249 onslip (SB)							✓
	2 - B2005 - link	3.66	7.00	13.1	260.8	36.3	35.0	
	3 - A249 offslip (SB)	8.26	9.50	36.8	24.9	39.2	44.0	
	4 - Swale Way	4.86	9.50	34.2	12.6	39.2	51.0	
	5 - Grovehurst Road	3.65	9.50	27.9	22.1	44.6	34.0	

### Slope / Intercept / Capacity

#### Arm Intercept Adjustments

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Junction	Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - North	1 - A249 offslip (NB)	Direct		-1050
	2 - Grovehurst Road	Direct		-400
	3 - A249 onslip (NB)			
	4 - B2005 - link	None		
2 - South	1 - A249 onslip (SB)			
	2 - B2005 - link	Direct		500
	3 - A249 offslip (SB)	Direct		-730
	4 - Swale Way	Direct		-575
	5 - Grovehurst Road	Direct		-550

### Roundabout Slope and Intercept used in model

Junction	Arm	Final slope	Final intercept (PCU/hr)
1 - North	1 - A249 offslip (NB)	0.838	1749
	2 - Grovehurst Road	0.722	1760
	3 - A249 onslip (NB)		
	4 - B2005 - link	0.630	1765
2 - South	1 - A249 onslip (SB)		
	2 - B2005 - link	0.660	2213
	3 - A249 offslip (SB)	0.838	2001
	4 - Swale Way	0.714	1629
	5 - Grovehurst Road	0.714	1597

The slope and intercept shown above include any corrections and adjustments.

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	669	100.000
	2 - Grovehurst Road		ONE HOUR	✓	398	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	518	100.000
	4 - Swale Way		ONE HOUR	✓	544	100.000
	5 - Grovehurst Road		ONE HOUR	✓	573	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From 1 - A249 offslip (NB)	0	42	0	627
	2 - Grovehurst Road	0	0	25	373
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	136	305	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	141	0	0	674	183
	3 - A249 offslip (SB)	1	18	0	325	174
	4 - Swale Way	285	194	0	0	65
	5 - Grovehurst Road	206	233	0	134	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	7	0	14
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	3	5	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	13	6
	3 - A249 offslip (SB)	0	6	0	5	4
	4 - Swale Way	32	7	0	0	6
	5 - Grovehurst Road	1	2	0	3	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.63	8.43	1.7	2.0	A	614	921
	2 - Grovehurst Road	0.48	7.71	0.9	3.5	A	365	548
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.29	3.00	0.4	1.5	A	408	612
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.57	4.38	1.3	1.8	A	917	1376
	3 - A249 offslip (SB)	0.69	14.29	2.2	7.9	B	475	713
	4 - Swale Way	0.60	8.84	1.5	2.2	A	499	749
	5 - Grovehurst Road	0.64	9.94	1.7	3.1	A	526	789

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	504	126	332	1285	0.392	501	0	0.0	0.6	4.580	A
	2 - Grovehurst Road	300	75	699	1161	0.258	298	134	0.0	0.3	4.166	A

	3 - A249 onslip (NB)			749				248				
	4 - B2005 - link	333	83	0	1690	0.197	332	749	0.0	0.2	2.649	A
2 - South	1 - A249 onslip (SB)			434				474				
	2 - B2005 - link	749	187	100	1952	0.384	747	333	0.0	0.6	2.981	A
	3 - A249 offslip (SB)	390	97	847	1172	0.333	388	0	0.0	0.5	4.583	A
	4 - Swale Way	410	102	387	1119	0.366	407	848	0.0	0.6	5.043	A
	5 - Grovehurst Road	431	108	478	1177	0.367	429	316	0.0	0.6	4.801	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	601	150	399	1233	0.488	600	0	0.6	0.9	5.676	A
	2 - Grovehurst Road	358	89	838	1053	0.340	357	161	0.3	0.5	5.169	A
	3 - A249 onslip (NB)			897				298				
	4 - B2005 - link	399	100	0	1690	0.236	399	897	0.2	0.3	2.786	A
2 - South	1 - A249 onslip (SB)			519				568				
	2 - B2005 - link	897	224	120	1939	0.463	896	399	0.6	0.9	3.449	A
	3 - A249 offslip (SB)	466	116	1017	1024	0.455	464	0	0.5	0.8	6.421	A
	4 - Swale Way	489	122	464	1071	0.457	488	1017	0.6	0.8	6.160	A
	5 - Grovehurst Road	515	129	573	1099	0.469	514	379	0.6	0.9	6.140	A

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	737	184	487	1165	0.632	734	0	0.9	1.7	8.284	A
	2 - Grovehurst Road	438	110	1024	909	0.482	437	196	0.5	0.9	7.602	A
	3 - A249 onslip (NB)			1097				364				
	4 - B2005 - link	487	122	0	1690	0.288	487	1097	0.3	0.4	2.991	A
2 - South	1 - A249 onslip (SB)			634				694				
	2 - B2005 - link	1097	274	147	1923	0.570	1095	488	0.9	1.3	4.339	A
	3 - A249 offslip (SB)	570	143	1242	827	0.690	565	0	0.8	2.1	13.495	B
	4 - Swale Way	599	150	566	1008	0.594	597	1241	0.8	1.4	8.691	A
	5 - Grovehurst Road	631	158	701	995	0.634	628	462	0.9	1.7	9.713	A

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	737	184	490	1163	0.633	736	0	1.7	1.7	8.430	A
	2 - Grovehurst Road	438	110	1029	905	0.484	438	197	0.9	0.9	7.709	A
	3 - A249 onslip (NB)			1101				366				
	4 - B2005 - link	490	122	0	1690	0.290	490	1101	0.4	0.4	2.997	A
2 - South	1 - A249 onslip (SB)			637				697				
	2 - B2005 - link	1101	275	148	1922	0.573	1101	490	1.3	1.3	4.382	A
	3 - A249 offslip (SB)	570	143	1248	821	0.695	570	0	2.1	2.2	14.292	B
	4 - Swale Way	599	150	570	1006	0.595	599	1249	1.4	1.5	8.840	A
	5 - Grovehurst Road	631	158	704	993	0.636	631	465	1.7	1.7	9.940	A

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	601	150	403	1230	0.489	604	0	1.7	1.0	5.779	A
	2 - Grovehurst Road	358	89	845	1048	0.341	359	162	0.9	0.5	5.242	A
	3 - A249 onslip (NB)			903				301				
	4 - B2005 - link	402	101	0	1690	0.238	403	903	0.4	0.3	2.797	A
2 - South	1 - A249 onslip (SB)			524				573				
	2 - B2005 - link	903	226	121	1939	0.466	905	402	1.3	0.9	3.488	A
	3 - A249 offslip (SB)	466	116	1026	1015	0.459	471	0	2.2	0.9	6.683	A
	4 - Swale Way	489	122	469	1068	0.458	491	1028	1.5	0.9	6.268	A
	5 - Grovehurst Road	515	129	578	1095	0.470	518	383	1.7	0.9	6.272	A

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	504	126	336	1282	0.393	505	0	1.0	0.7	4.644	A



1 - North	2 - Grovehurst Road	300	75	706	1156	0.259	300	135	0.5	0.4	4.211	A
	3 - A249 onslip (NB)			755				251				
	4 - B2005 - link	336	84	0	1690	0.199	336	755	0.3	0.2	2.658	A
	1 - A249 onslip (SB)			437				478				
2 - South	2 - B2005 - link	755	189	101	1951	0.387	756	336	0.9	0.6	3.013	A
	3 - A249 offslip (SB)	390	97	857	1163	0.335	391	0	0.9	0.5	4.673	A
	4 - Swale Way	410	102	391	1116	0.367	411	857	0.9	0.6	5.111	A
	5 - Grovehurst Road	431	108	483	1173	0.368	433	319	0.9	0.6	4.871	A

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	0.64	0.55	1.00	1.40	1.45			N/A	N/A
	2 - Grovehurst Road	0.35	0.00	0.00	0.35	0.35			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.24	0.00	0.00	0.24	0.24			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.62	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.50	0.00	0.00	0.50	0.50			N/A	N/A
	4 - Swale Way	0.57	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	0.57	0.55	1.00	1.40	1.45			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	0.94	0.08	0.85	1.60	1.96			N/A	N/A
	2 - Grovehurst Road	0.51	0.05	0.54	1.31	1.40			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.31	0.00	0.00	0.31	0.31			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.86	0.08	0.82	1.32	1.75			N/A	N/A
	3 - A249 offslip (SB)	0.82	0.06	0.70	1.44	1.88			N/A	N/A
	4 - Swale Way	0.83	0.09	0.86	1.49	1.50			N/A	N/A
	5 - Grovehurst Road	0.87	0.08	0.83	1.38	1.79			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.68	0.03	0.27	1.68	1.73			N/A	N/A
	2 - Grovehurst Road	0.92	0.03	0.26	0.92	0.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.31	0.03	0.26	1.31	1.31			N/A	N/A
	3 - A249 offslip (SB)	2.12	0.03	0.29	2.12	7.89			N/A	N/A
	4 - Swale Way	1.43	0.03	0.27	1.43	1.43			N/A	N/A
	5 - Grovehurst Road	1.68	0.03	0.27	1.68	2.69			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.70	0.03	0.27	1.70	1.79			N/A	N/A
	2 - Grovehurst Road	0.93	0.03	0.28	0.93	3.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.41	0.03	0.32	1.32	1.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.33	0.03	0.26	1.33	1.33			N/A	N/A
	3 - A249 offslip (SB)	2.21	0.03	0.28	2.21	7.57			N/A	N/A
	4 - Swale Way	1.45	0.03	0.27	1.45	2.17			N/A	N/A
	5 - Grovehurst Road	1.72	0.03	0.27	1.72	3.05			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	0.97	0.10	0.94	1.51	1.85			N/A	N/A
	2 - Grovehurst Road	0.52	0.06	0.62	1.32	1.41			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.31	0.00	0.00	0.31	0.31			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.88	0.52	0.99	1.41	1.46			N/A	N/A
	3 - A249 offslip (SB)	0.86	0.06	0.68	1.59	2.00			N/A	N/A
	4 - Swale Way	0.86	0.10	0.89	1.49	1.51			N/A	N/A
	5 - Grovehurst Road	0.90	0.08	0.87	1.41	1.80			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	0.65	0.05	0.50	1.46	1.49			N/A	N/A
	2 - Grovehurst Road	0.35	0.03	0.27	0.48	0.78			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.25	0.00	0.00	0.25	0.25			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.63	0.09	0.79	1.36	1.43			N/A	N/A
	3 - A249 offslip (SB)	0.51	0.04	0.36	1.44	1.63			N/A	N/A
	4 - Swale Way	0.58	0.05	0.49	1.36	1.48			N/A	N/A
	5 - Grovehurst Road	0.59	0.04	0.44	1.39	1.39			N/A	N/A

# 2017, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	12.50	B
2	South	Standard Roundabout	1, 2, 3, 4, 5	43.78	E

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	749	100.000
	2 - Grovehurst Road		ONE HOUR	✓	222	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	431	100.000
	4 - Swale Way		ONE HOUR	✓	989	100.000
	5 - Grovehurst Road		ONE HOUR	✓	528	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From				
	1 - A249 offslip (NB)	0	180	0	569
	2 - Grovehurst Road	0	0	27	195
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	234	470	0

### Demand (Veh/hr)

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
2 - South	From					
	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	396	322
	3 - A249 offslip (SB)	1	27	0	187	216
	4 - Swale Way	509	351	0	0	129
	5 - Grovehurst Road	110	318	0	100	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From				
	1 - A249 offslip (NB)	0	1	0	16
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0

### Heavy Vehicle Percentages

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
2 - South	From					
	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	22	1
	3 - A249 offslip (SB)	0	11	0	7	4
	4 - Swale Way	14	2	0	0	2
	5 - Grovehurst Road	0	2	0	3	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.84	21.72	4.7	23.6	C	687	1031
	2 - Grovehurst Road	0.29	5.88	0.4	1.3	A	204	306
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.43	3.67	0.8	2.1	A	640	960
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.44	3.37	0.8	2.1	A	702	1052
	3 - A249 offslip (SB)	0.45	6.19	0.8	3.3	A	395	593
	4 - Swale Way	1.04	106.63	34.1	91.4	F	908	1361
	5 - Grovehurst Road	0.71	14.92	2.3	8.6	B	485	727

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	564	141	520	1161	0.486	560	0	0.0	0.9	5.957	A
	2 - Grovehurst Road	167	42	773	1135	0.147	166	308	0.0	0.2	3.714	A
	3 - A249 onslip (NB)			572				368				
	4 - B2005 - link	522	130	0	1730	0.302	520	572	0.0	0.4	2.972	A
2 - South	1 - A249 onslip (SB)			595				494				
	2 - B2005 - link	573	143	75	1930	0.297	571	520	0.0	0.4	2.645	A
	3 - A249 offslip (SB)	324	81	646	1325	0.245	323	0	0.0	0.3	3.590	A
	4 - Swale Way	745	186	456	1197	0.622	738	513	0.0	1.6	7.747	A
	5 - Grovehurst Road	398	99	694	1039	0.383	395	500	0.0	0.6	5.570	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	673	168	624	1082	0.622	671	0	0.9	1.6	8.694	A
	2 - Grovehurst Road	200	50	926	1015	0.197	199	369	0.2	0.2	4.414	A
	3 - A249 onslip (NB)			685				441				
	4 - B2005 - link	624	156	0	1730	0.361	624	685	0.4	0.6	3.252	A
2 - South	1 - A249 onslip (SB)			712				591				
	2 - B2005 - link	686	171	90	1921	0.357	685	622	0.4	0.6	2.910	A
	3 - A249 offslip (SB)	387	97	775	1211	0.320	387	0	0.3	0.5	4.364	A
	4 - Swale Way	889	222	547	1135	0.783	882	614	1.6	3.4	13.833	B
	5 - Grovehurst Road	475	119	830	935	0.507	473	599	0.6	1.0	7.759	A

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	825	206	740	994	0.830	814	0	1.6	4.3	18.942	C
	2 - Grovehurst Road	244	61	1112	867	0.282	244	441	0.2	0.4	5.770	A
	3 - A249 onslip (NB)			832				523				
	4 - B2005 - link	740	185	0	1730	0.428	740	832	0.6	0.7	3.634	A
2 - South	1 - A249 onslip (SB)			847				691				
	2 - B2005 - link	833	208	109	1909	0.437	833	738	0.6	0.8	3.340	A
	3 - A249 offslip (SB)	475	119	942	1064	0.446	473	0	0.5	0.8	6.078	A
	4 - Swale Way	1089	272	667	1054	1.033	1017	748	3.4	21.4	56.760	F
	5 - Grovehurst Road	581	145	961	836	0.696	577	723	1.0	2.2	13.662	B

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	825	206	750	986	0.837	823	0	4.3	4.7	21.724	C
	2 - Grovehurst Road	244	61	1126	856	0.286	244	447	0.4	0.4	5.885	A
	3 - A249 onslip (NB)			840				531				
	4 - B2005 - link	751	188	0	1730	0.434	750	840	0.7	0.8	3.675	A
2 - South	1 - A249 onslip (SB)			858				703				
	2 - B2005 - link	841	210	110	1909	0.441	841	748	0.8	0.8	3.371	A
	3 - A249 offslip (SB)	475	119	951	1056	0.449	474	0	0.8	0.8	6.191	A
	4 - Swale Way	1089	272	671	1051	1.036	1038	754	21.4	34.1	106.632	F
	5 - Grovehurst Road	581	145	980	821	0.708	581	730	2.2	2.3	14.919	B

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	673	168	673	1044	0.645	685	0	4.7	1.9	10.316	B
	2 - Grovehurst Road	200	50	970	981	0.203	200	388	0.4	0.3	4.613	A
	3 - A249 onslip (NB)			696				474				
	4 - B2005 - link	673	168	0	1730	0.389	673	696	0.8	0.6	3.410	A
	1 - A249 onslip (SB)			761				658				

2 - South	2 - B2005 - link	697	174	91	1921	0.363	698	671	0.8	0.6	2.946	A
	3 - A249 offslip (SB)	387	97	789	1199	0.323	389	0	0.8	0.5	4.453	A
	4 - Swale Way	889	222	554	1130	0.787	1009	623	34.1	4.1	46.441	E
	5 - Grovehurst Road	475	119	941	851	0.558	479	622	2.3	1.3	9.791	A

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	564	141	532	1152	0.489	567	0	1.9	1.0	6.194	A
	2 - Grovehurst Road	167	42	786	1125	0.149	167	313	0.3	0.2	3.762	A
	3 - A249 onslip (NB)			578				375				
	4 - B2005 - link	531	133	0	1730	0.307	532	578	0.6	0.4	3.008	A
2 - South	1 - A249 onslip (SB)			605				504				
	2 - B2005 - link	579	145	76	1930	0.300	580	529	0.6	0.4	2.669	A
	3 - A249 offslip (SB)	324	81	656	1316	0.247	325	0	0.5	0.3	3.637	A
	4 - Swale Way	745	186	462	1193	0.624	754	519	4.1	1.7	8.380	A
	5 - Grovehurst Road	398	99	709	1028	0.387	400	507	1.3	0.6	5.759	A

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	0.93	0.55	1.00	1.40	1.45			N/A	N/A
	2 - Grovehurst Road	0.17	0.00	0.00	0.17	0.17			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.42	0.00	0.00	0.42	0.42			N/A	N/A
	3 - A249 offslip (SB)	0.32	0.00	0.00	0.32	0.32			N/A	N/A
	4 - Swale Way	1.61	0.26	1.40	2.62	3.15			N/A	N/A
	5 - Grovehurst Road	0.61	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.61	0.05	0.66	3.98	6.02			N/A	N/A
	2 - Grovehurst Road	0.24	0.00	0.00	0.24	0.24			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.56	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.55	0.08	0.75	1.35	1.43			N/A	N/A
	3 - A249 offslip (SB)	0.47	0.00	0.00	0.47	0.47			N/A	N/A
	4 - Swale Way	3.38	0.06	0.92	9.34	14.65			N/A	N/A
	5 - Grovehurst Road	1.01	0.07	0.84	1.83	2.49			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.34	0.04	0.36	10.03	23.62			N/A	N/A
	2 - Grovehurst Road	0.39	0.03	0.25	0.46	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.74	0.03	0.25	0.74	0.74			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.77	0.03	0.25	0.77	0.77			N/A	N/A
	3 - A249 offslip (SB)	0.80	0.03	0.26	0.80	0.80			N/A	N/A
	4 - Swale Way	21.40	1.44	15.74	45.68	57.99			N/A	N/A
	5 - Grovehurst Road	2.18	0.03	0.29	2.18	8.56			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	4.74	0.03	0.31	5.41	22.27			N/A	N/A
	2 - Grovehurst Road	0.40	0.03	0.33	1.25	1.25			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.76	0.03	0.27	0.76	2.05			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.78	0.03	0.27	0.78	2.13			N/A	N/A
	3 - A249 offslip (SB)	0.81	0.03	0.28	1.06	3.32			N/A	N/A
	4 - Swale Way	34.05	2.82	25.62	72.31	91.41			N/A	N/A
	5 - Grovehurst Road	2.34	0.03	0.28	2.34	7.28			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.87	0.05	0.50	4.91	7.75			N/A	N/A
	2 - Grovehurst Road	0.26	0.00	0.00	0.26	0.26			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.64	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.57	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.48	0.00	0.00	0.48	0.48			N/A	N/A
	4 - Swale Way	4.15	0.04	0.41	11.30	21.73			N/A	N/A
	5 - Grovehurst Road	1.29	0.09	1.05	2.42	3.14			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	0.97	0.03	0.33	2.11	4.82			N/A	N/A
	2 - Grovehurst Road	0.18	0.00	0.00	0.18	0.18			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.44	0.00	0.00	0.44	0.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.43	0.00	0.00	0.43	0.43			N/A	N/A
	3 - A249 offslip (SB)	0.33	0.00	0.00	0.33	0.33			N/A	N/A
	4 - Swale Way	1.70	0.03	0.29	1.70	6.48			N/A	N/A
	5 - Grovehurst Road	0.64	0.04	0.38	1.40	2.21			N/A	N/A

# 2024, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	14.06	B
2	South	Standard Roundabout	1, 2, 3, 4, 5	50.00	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	838	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	569	100.000
	4 - Swale Way		ONE HOUR	✓	676	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000



## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From				
	1 - A249 offslip (NB)	0	42	0	796
	2 - Grovehurst Road	0	0	25	415
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	147	326	0

### Demand (Veh/hr)

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
2 - South	From					
	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	141	0	0	885	183
	3 - A249 offslip (SB)	1	18	0	376	174
	4 - Swale Way	374	225	0	0	77
	5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From				
	1 - A249 offslip (NB)	0	7	0	17
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	6	0

### Heavy Vehicle Percentages

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
2 - South	From					
	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	15	6
	3 - A249 offslip (SB)	0	6	0	9	4
	4 - Swale Way	36	9	0	0	9
	5 - Grovehurst Road	1	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.83	19.20	4.7	24.1	C	769	1153
	2 - Grovehurst Road	0.67	15.10	2.0	7.3	C	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.31	3.12	0.5	1.9	A	437	655
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.72	6.83	2.5	4.8	A	1113	1670
	3 - A249 offslip (SB)	1.15	226.40	44.4	84.7	F	522	783
	4 - Swale Way	0.75	14.51	2.9	12.9	B	620	930
	5 - Grovehurst Road	0.78	18.91	3.4	16.7	C	561	841

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	631	158	355	1232	0.512	627	0	0.0	1.0	5.905	A
	2 - Grovehurst Road	331	83	840	1036	0.320	329	142	0.0	0.5	5.083	A
	3 - A249 onslip (NB)			906				264				
	4 - B2005 - link	356	89	0	1674	0.213	355	906	0.0	0.3	2.726	A
2 - South	1 - A249 onslip (SB)			485				540				
	2 - B2005 - link	909	227	129	1899	0.479	905	356	0.0	0.9	3.609	A
	3 - A249 offslip (SB)	428	107	1034	969	0.442	425	0	0.0	0.8	6.586	A
	4 - Swale Way	509	127	387	1083	0.470	505	1072	0.0	0.9	6.194	A
	5 - Grovehurst Road	460	115	568	1084	0.424	457	325	0.0	0.7	5.714	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	753	188	426	1178	0.639	751	0	1.0	1.7	8.360	A
	2 - Grovehurst Road	396	99	1007	903	0.438	394	170	0.5	0.8	7.059	A
	3 - A249 onslip (NB)			1085				316				
	4 - B2005 - link	427	107	0	1674	0.255	426	1085	0.3	0.3	2.884	A
2 - South	1 - A249 onslip (SB)			580				647				
	2 - B2005 - link	1088	272	154	1883	0.578	1086	426	0.9	1.4	4.508	A
	3 - A249 offslip (SB)	512	128	1240	790	0.648	508	0	0.8	1.8	12.580	B
	4 - Swale Way	608	152	463	1038	0.586	606	1285	0.9	1.4	8.296	A
	5 - Grovehurst Road	549	137	680	989	0.555	547	389	0.7	1.2	8.105	A

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	923	231	516	1110	0.831	912	0	1.7	4.4	17.290	C
	2 - Grovehurst Road	484	121	1222	732	0.662	480	206	0.8	1.9	14.066	B
	3 - A249 onslip (NB)			1319				383				
	4 - B2005 - link	517	129	0	1674	0.309	516	1319	0.3	0.4	3.109	A
2 - South	1 - A249 onslip (SB)			704				787				
	2 - B2005 - link	1323	331	187	1863	0.710	1318	516	1.4	2.4	6.565	A
	3 - A249 offslip (SB)	626	157	1506	560	1.118	542	0	1.8	23.0	100.388	F
	4 - Swale Way	744	186	537	994	0.749	739	1510	1.4	2.8	13.808	B
	5 - Grovehurst Road	673	168	826	866	0.777	665	449	1.2	3.2	17.242	C

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	923	231	521	1106	0.834	922	0	4.4	4.7	19.198	C
	2 - Grovehurst Road	484	121	1235	722	0.671	484	208	1.9	2.0	15.096	C
	3 - A249 onslip (NB)			1332				387				
	4 - B2005 - link	521	130	0	1674	0.311	521	1332	0.4	0.5	3.121	A
2 - South	1 - A249 onslip (SB)			710				795				
	2 - B2005 - link	1336	334	189	1861	0.718	1335	521	2.4	2.5	6.832	A
	3 - A249 offslip (SB)	626	157	1524	544	1.152	541	0	23.0	44.4	226.403	F
	4 - Swale Way	744	186	541	991	0.751	744	1524	2.8	2.9	14.509	B
	5 - Grovehurst Road	673	168	833	861	0.782	672	452	3.2	3.4	18.906	C

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	753	188	439	1169	0.645	765	0	4.7	1.9	9.145	A
	2 - Grovehurst Road	396	99	1029	886	0.447	400	175	2.0	0.8	7.483	A
	3 - A249 onslip (NB)			1104				325				
	4 - B2005 - link	439	110	0	1674	0.262	439	1104	0.5	0.4	2.916	A
	1 - A249 onslip (SB)			595				658				

2 - South	2 - B2005 - link	1107	277	157	1881	0.589	1111	438	2.5	1.4	4.700	A
	3 - A249 offslip (SB)	512	128	1268	766	0.668	680	0	44.4	2.3	87.971	F
	4 - Swale Way	608	152	528	998	0.609	613	1420	2.9	1.6	9.463	A
	5 - Grovehurst Road	549	137	695	977	0.562	558	446	3.4	1.3	8.742	A

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	631	158	361	1228	0.514	634	0	1.9	1.1	6.092	A
	2 - Grovehurst Road	331	83	851	1027	0.323	333	144	0.8	0.5	5.193	A
	3 - A249 onslip (NB)			916				268				
	4 - B2005 - link	361	90	0	1674	0.215	361	916	0.4	0.3	2.740	A
2 - South	1 - A249 onslip (SB)			490				547				
	2 - B2005 - link	919	230	130	1898	0.484	921	360	1.4	0.9	3.694	A
	3 - A249 offslip (SB)	428	107	1051	954	0.449	434	0	2.3	0.8	7.000	A
	4 - Swale Way	509	127	394	1079	0.472	512	1091	1.6	0.9	6.376	A
	5 - Grovehurst Road	460	115	575	1078	0.427	462	330	1.3	0.8	5.870	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.03	0.55	1.00	1.40	1.45			N/A	N/A
	2 - Grovehurst Road	0.47	0.00	0.00	0.47	0.47			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.91	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.78	0.06	0.72	1.18	1.68			N/A	N/A
	4 - Swale Way	0.87	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	0.73	0.55	1.00	1.40	1.45			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.73	0.05	0.65	4.41	6.71			N/A	N/A
	2 - Grovehurst Road	0.77	0.07	0.74	1.50	1.56			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.35	0.05	0.60	3.24	4.84			N/A	N/A
	3 - A249 offslip (SB)	1.77	0.04	0.39	4.71	8.57			N/A	N/A
	4 - Swale Way	1.38	0.06	0.88	3.00	4.32			N/A	N/A
	5 - Grovehurst Road	1.22	0.06	0.71	2.74	3.91			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.43	0.03	0.35	9.69	24.07			N/A	N/A
	2 - Grovehurst Road	1.87	0.03	0.28	1.87	6.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.44	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.39	0.03	0.27	2.39	3.14			N/A	N/A
	3 - A249 offslip (SB)	23.01	5.30	19.81	41.09	49.00			N/A	N/A
	4 - Swale Way	2.82	0.03	0.30	2.89	12.89			N/A	N/A
	5 - Grovehurst Road	3.21	0.03	0.32	5.55	16.72			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	4.71	0.03	0.30	4.71	20.41			N/A	N/A
	2 - Grovehurst Road	1.98	0.03	0.29	1.98	7.30			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.31	1.38	1.86			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.49	0.03	0.27	2.49	2.49			N/A	N/A
	3 - A249 offslip (SB)	44.35	15.08	40.37	73.03	84.68			N/A	N/A
	4 - Swale Way	2.92	0.03	0.28	2.92	7.64			N/A	N/A
	5 - Grovehurst Road	3.40	0.03	0.29	3.40	13.85			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.86	0.05	0.47	4.95	8.03			N/A	N/A
	2 - Grovehurst Road	0.82	0.06	0.71	1.40	1.84			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.45	0.11	1.18	2.69	3.51			N/A	N/A
	3 - A249 offslip (SB)	2.25	0.03	0.33	4.58	11.96			N/A	N/A
	4 - Swale Way	1.59	0.06	0.91	3.72	5.33			N/A	N/A
	5 - Grovehurst Road	1.31	0.05	0.50	3.18	4.85			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.07	0.03	0.34	2.48	5.33			N/A	N/A
	2 - Grovehurst Road	0.48	0.04	0.36	1.38	1.40			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.95	0.05	0.59	1.91	2.77			N/A	N/A
	3 - A249 offslip (SB)	0.83	0.03	0.26	0.83	0.83			N/A	N/A
	4 - Swale Way	0.90	0.04	0.38	2.18	3.78			N/A	N/A
	5 - Grovehurst Road	0.75	0.03	0.34	1.75	3.41			N/A	N/A

# 2024, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	22.68	C
2	South	Standard Roundabout	1, 2, 3, 4, 5	258.52	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	813	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	442	100.000
	4 - Swale Way		ONE HOUR	✓	1252	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	633
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	262	521	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	42	0	0	465	322
		3 - A249 offslip (SB)	1	27	0	198	216
		4 - Swale Way	662	431	0	0	159
	5 - Grovehurst Road	110	318	0	106	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	1	0	20
		2 - Grovehurst Road	0	0	0	1
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	3	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	26	1
		3 - A249 offslip (SB)	0	11	0	8	4
		4 - Swale Way	17	2	0	0	3
	5 - Grovehurst Road	0	2	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.93	41.91	9.7	51.5	E	746	1119
	2 - Grovehurst Road	0.32	6.69	0.5	1.8	A	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.43	3.63	0.7	1.5	A	682	1023
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.49	3.84	1.0	1.5	A	766	1149
	3 - A249 offslip (SB)	0.51	7.65	1.0	3.6	A	406	608
	4 - Swale Way	1.33	617.22	194.5	200.0	F	1149	1723
	5 - Grovehurst Road	0.73	16.36	2.6	12.0	C	490	735

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	612	153	577	1085	0.564	607	0	0.0	1.3	7.458	A
	2 - Grovehurst Road	171	43	856	1056	0.162	170	327	0.0	0.2	4.061	A
	3 - A249 onslip (NB)			622				404				
	4 - B2005 - link	579	145	0	1730	0.335	577	622	0.0	0.5	3.116	A
2 - South	1 - A249 onslip (SB)			656				605				
	2 - B2005 - link	624	156	79	1876	0.333	622	577	0.0	0.5	2.867	A
	3 - A249 offslip (SB)	333	83	702	1254	0.265	331	0	0.0	0.4	3.897	A
	4 - Swale Way	943	236	456	1176	0.801	928	577	0.0	3.7	13.753	B
	5 - Grovehurst Road	402	101	862	897	0.448	399	521	0.0	0.8	7.177	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	731	183	678	1010	0.723	726	0	1.3	2.5	12.447	B
	2 - Grovehurst Road	204	51	1016	927	0.220	204	388	0.2	0.3	4.978	A
	3 - A249 onslip (NB)			745				475				
	4 - B2005 - link	678	170	0	1730	0.392	678	745	0.5	0.6	3.419	A
2 - South	1 - A249 onslip (SB)			771				702				
	2 - B2005 - link	747	187	95	1866	0.400	746	676	0.5	0.7	3.213	A
	3 - A249 offslip (SB)	397	99	841	1129	0.352	397	0	0.4	0.5	4.913	A
	4 - Swale Way	1126	281	547	1116	1.008	1068	691	3.7	18.0	48.927	E
	5 - Grovehurst Road	480	120	996	794	0.605	477	619	0.8	1.5	11.269	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	895	224	737	967	0.926	872	0	2.5	8.3	31.976	D
	2 - Grovehurst Road	250	62	1169	800	0.312	249	439	0.3	0.4	6.525	A
	3 - A249 onslip (NB)			898				520				
	4 - B2005 - link	737	184	0	1730	0.426	737	898	0.6	0.7	3.621	A
2 - South	1 - A249 onslip (SB)			850				715				
	2 - B2005 - link	901	225	116	1854	0.486	899	734	0.7	0.9	3.770	A
	3 - A249 offslip (SB)	487	122	1015	972	0.501	485	0	0.5	1.0	7.363	A
	4 - Swale Way	1378	345	663	1039	1.327	1037	838	18.0	103.3	220.307	F
	5 - Grovehurst Road	588	147	982	805	0.730	584	718	1.5	2.5	15.929	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	895	224	738	966	0.927	890	0	8.3	9.7	41.906	E
	2 - Grovehurst Road	250	62	1184	788	0.317	250	444	0.4	0.5	6.695	A
	3 - A249 onslip (NB)			913				521				
	4 - B2005 - link	738	185	0	1730	0.427	738	913	0.7	0.7	3.628	A
2 - South	1 - A249 onslip (SB)			852				715				
	2 - B2005 - link	915	229	117	1853	0.494	915	736	0.9	1.0	3.838	A
	3 - A249 offslip (SB)	487	122	1032	957	0.509	487	0	1.0	1.0	7.645	A
	4 - Swale Way	1378	345	670	1034	1.333	1034	848	103.3	189.5	504.156	F
	5 - Grovehurst Road	588	147	980	807	0.728	588	725	2.5	2.6	16.356	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	731	183	695	997	0.733	758	0	9.7	2.9	16.572	C
	2 - Grovehurst Road	204	51	1053	896	0.228	205	401	0.5	0.3	5.211	A
	3 - A249 onslip (NB)			771				487				
	4 - B2005 - link	695	174	0	1730	0.402	695	771	0.7	0.7	3.480	A
2 - South	1 - A249 onslip (SB)			789				725				

2 - South	2 - B2005 - link	774	193	96	1865	0.415	775	693	1.0	0.7	3.306	A
	3 - A249 offslip (SB)	397	99	871	1101	0.361	399	0	1.0	0.6	5.140	A
	4 - Swale Way	1126	281	561	1107	1.017	1106	709	189.5	194.5	617.219	F
	5 - Grovehurst Road	480	120	1030	767	0.626	484	637	2.6	1.7	12.837	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	612	153	664	1020	0.600	618	0	2.9	1.5	9.055	A
	2 - Grovehurst Road	171	43	923	1006	0.170	171	359	0.3	0.2	4.315	A
	3 - A249 onslip (NB)			632				462				
	4 - B2005 - link	664	166	0	1730	0.384	664	632	0.7	0.6	3.380	A
2 - South	1 - A249 onslip (SB)			743				733				
	2 - B2005 - link	634	158	80	1875	0.338	635	662	0.7	0.5	2.903	A
	3 - A249 offslip (SB)	333	83	715	1242	0.268	334	0	0.6	0.4	3.966	A
	4 - Swale Way	943	236	463	1172	0.804	1166	586	194.5	138.6	514.936	F
	5 - Grovehurst Road	402	101	1071	735	0.547	404	558	1.7	1.2	10.946	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.27	0.55	1.18	1.65	1.85			N/A	N/A
	2 - Grovehurst Road	0.19	0.00	0.00	0.19	0.19			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.50	0.00	0.00	0.50	0.50			N/A	N/A
	3 - A249 offslip (SB)	0.36	0.00	0.00	0.36	0.36			N/A	N/A
	4 - Swale Way	3.73	0.03	0.35	8.10	20.19			N/A	N/A
	5 - Grovehurst Road	0.80	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.49	0.06	0.92	6.61	10.03			N/A	N/A
	2 - Grovehurst Road	0.28	0.00	0.00	0.28	0.28			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.64	0.20	0.93	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.66	0.10	0.83	1.37	1.44			N/A	N/A
	3 - A249 offslip (SB)	0.54	0.06	0.66	1.33	1.42			N/A	N/A
	4 - Swale Way	18.03	0.39	10.22	44.42	60.17			N/A	N/A
	5 - Grovehurst Road	1.48	0.09	1.11	2.94	3.96			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	8.33	0.07	1.24	24.08	38.23			N/A	N/A
	2 - Grovehurst Road	0.45	0.03	0.25	0.46	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.74	0.03	0.25	0.74	0.74			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.94	0.03	0.25	0.94	0.94			N/A	N/A
	3 - A249 offslip (SB)	0.99	0.03	0.26	0.99	0.99			N/A	N/A
	4 - Swale Way	103.34	58.14	99.83	143.51	157.81			N/A	N/A
	5 - Grovehurst Road	2.55	0.03	0.30	2.94	11.99			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker



1 - North	1 - A249 offslip (NB)	9.74	0.05	0.47	27.47	51.49			N/A	N/A
	2 - Grovehurst Road	0.46	0.03	0.32	1.41	1.82			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.74	0.03	0.27	0.74	1.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.97	0.03	0.27	0.97	1.19			N/A	N/A
	3 - A249 offslip (SB)	1.02	0.03	0.28	1.02	3.61			N/A	N/A
	4 - Swale Way	189.55	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.61	0.03	0.28	2.61	6.62			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.90	0.04	0.42	7.97	14.56			N/A	N/A
	2 - Grovehurst Road	0.30	0.00	0.00	0.30	0.30			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.68	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.71	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.57	0.09	0.79	1.36	1.43			N/A	N/A
	4 - Swale Way	194.45	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.73	0.06	0.78	4.30	6.41			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.53	0.03	0.31	2.76	7.90			N/A	N/A
	2 - Grovehurst Road	0.21	0.00	0.00	0.21	0.21			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.63	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.37	0.03	0.28	0.66	1.08			N/A	N/A
	4 - Swale Way	138.59	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.24	0.05	0.47	2.99	4.69			N/A	N/A

# 2024 + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	20.39	C
2	South	Standard Roundabout	1, 2, 3, 4, 5	80.36	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	881	100.000
	2 - Grovehurst Road		ONE HOUR	✓	446	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	592	100.000
	4 - Swale Way		ONE HOUR	✓	677	100.000
	5 - Grovehurst Road		ONE HOUR	✓	736	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	45	0	836
		2 - Grovehurst Road	0	0	25	421
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	151	365	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	144	0	0	885	225
		3 - A249 offslip (SB)	1	18	0	376	197
		4 - Swale Way	375	225	0	0	77
		5 - Grovehurst Road	287	277	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	13	0	16
		2 - Grovehurst Road	0	0	8	4
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	6	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	15	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	37	9	0	0	9
		5 - Grovehurst Road	1	1	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.90	29.29	7.4	40.7	D	808	1213
	2 - Grovehurst Road	0.74	20.90	2.7	12.5	C	409	614
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.33	3.23	0.5	2.3	A	473	710
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.74	7.44	2.8	5.6	A	1153	1730
	3 - A249 offslip (SB)	1.29	359.35	71.6	112.3	F	543	815
	4 - Swale Way	0.78	17.04	3.4	16.8	C	621	932
	5 - Grovehurst Road	0.94	52.02	11.0	54.2	F	675	1013

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	663	166	385	1217	0.545	659	0	0.0	1.2	6.395	A
	2 - Grovehurst Road	336	84	897	987	0.340	334	146	0.0	0.5	5.497	A
	3 - A249 onslip (NB)			940				291				
	4 - B2005 - link	386	96	0	1674	0.230	385	940	0.0	0.3	2.789	A
2 - South	1 - A249 onslip (SB)			517				603				
	2 - B2005 - link	941	235	129	1899	0.495	937	389	0.0	1.0	3.727	A
	3 - A249 offslip (SB)	446	111	1065	942	0.473	442	0	0.0	0.9	7.149	A
	4 - Swale Way	510	127	437	1047	0.487	506	1070	0.0	0.9	6.613	A
	5 - Grovehurst Road	554	139	570	1084	0.511	550	373	0.0	1.0	6.687	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	792	198	461	1158	0.684	788	0	1.2	2.1	9.638	A
	2 - Grovehurst Road	401	100	1074	848	0.473	399	175	0.5	0.9	8.002	A
	3 - A249 onslip (NB)			1125				349				
	4 - B2005 - link	462	115	0	1674	0.276	461	1125	0.3	0.4	2.969	A
2 - South	1 - A249 onslip (SB)			619				722				
	2 - B2005 - link	1126	282	154	1883	0.598	1124	465	1.0	1.5	4.730	A
	3 - A249 offslip (SB)	532	133	1278	758	0.702	527	0	0.9	2.2	15.234	C
	4 - Swale Way	609	152	523	995	0.611	606	1282	0.9	1.5	9.194	A
	5 - Grovehurst Road	662	165	683	988	0.670	658	446	1.0	2.0	10.782	B

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	970	242	552	1089	0.890	952	0	2.1	6.5	23.690	C
	2 - Grovehurst Road	491	123	1294	676	0.727	485	210	0.9	2.5	18.261	C
	3 - A249 onslip (NB)			1361				417				
	4 - B2005 - link	552	138	0	1674	0.330	552	1361	0.4	0.5	3.205	A
2 - South	1 - A249 onslip (SB)			739				871				
	2 - B2005 - link	1362	341	183	1865	0.730	1357	556	1.5	2.6	7.026	A
	3 - A249 offslip (SB)	652	163	1540	530	1.230	520	0	2.2	35.2	147.544	F
	4 - Swale Way	745	186	589	956	0.780	738	1471	1.5	3.3	16.061	C
	5 - Grovehurst Road	810	203	827	865	0.937	783	501	2.0	8.8	35.952	E

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	970	242	560	1083	0.896	966	0	6.5	7.4	29.295	D
	2 - Grovehurst Road	491	123	1314	660	0.744	490	213	2.5	2.7	20.904	C
	3 - A249 onslip (NB)			1380				424				
	4 - B2005 - link	560	140	0	1674	0.335	560	1380	0.5	0.5	3.232	A
2 - South	1 - A249 onslip (SB)			752				884				
	2 - B2005 - link	1381	345	187	1862	0.741	1380	565	2.6	2.8	7.445	A
	3 - A249 offslip (SB)	652	163	1567	507	1.286	506	0	35.2	71.6	359.348	F
	4 - Swale Way	745	186	591	955	0.781	745	1483	3.3	3.4	17.043	C
	5 - Grovehurst Road	810	203	835	858	0.944	801	501	8.8	11.0	52.025	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	792	198	485	1140	0.694	812	0	7.4	2.4	11.590	B
	2 - Grovehurst Road	401	100	1114	817	0.490	408	183	2.7	1.0	8.935	A
	3 - A249 onslip (NB)			1156				366				
	4 - B2005 - link	484	121	0	1674	0.289	485	1156	0.5	0.4	3.029	A
	1 - A249 onslip (SB)			651				747				

2 - South	2 - B2005 - link	1157	289	163	1877	0.616	1162	488	2.8	1.6	5.061	A
	3 - A249 offslip (SB)	532	133	1324	718	0.742	708	0	71.6	27.8	253.396	F
	4 - Swale Way	609	152	600	949	0.641	615	1432	3.4	1.8	10.959	B
	5 - Grovehurst Road	662	165	701	974	0.679	697	514	11.0	2.2	14.542	B

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	663	166	395	1209	0.549	668	0	2.4	1.2	6.709	A
	2 - Grovehurst Road	336	84	913	974	0.345	338	150	1.0	0.5	5.671	A
	3 - A249 onslip (NB)			952				298				
	4 - B2005 - link	395	99	0	1674	0.236	395	952	0.4	0.3	2.815	A
2 - South	1 - A249 onslip (SB)			528				613				
	2 - B2005 - link	953	238	131	1897	0.502	956	398	1.6	1.0	3.834	A
	3 - A249 offslip (SB)	446	111	1086	924	0.482	553	0	27.8	1.0	13.074	B
	4 - Swale Way	510	127	483	1019	0.500	513	1156	1.8	1.0	7.157	A
	5 - Grovehurst Road	554	139	582	1075	0.516	559	414	2.2	1.1	7.034	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.18	0.56	1.08	1.26	1.63			N/A	N/A
	2 - Grovehurst Road	0.51	0.51	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.97	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.88	0.05	0.47	1.88	2.80			N/A	N/A
	4 - Swale Way	0.94	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	1.03	0.53	1.03	1.37	1.37			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.09	0.05	0.63	5.57	8.68			N/A	N/A
	2 - Grovehurst Road	0.88	0.06	0.71	1.63	2.09			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.47	0.05	0.55	3.65	5.55			N/A	N/A
	3 - A249 offslip (SB)	2.23	0.04	0.40	5.98	11.14			N/A	N/A
	4 - Swale Way	1.53	0.06	0.89	3.55	5.04			N/A	N/A
	5 - Grovehurst Road	1.96	0.05	0.50	5.20	8.24			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	6.53	0.05	0.47	18.53	33.85			N/A	N/A
	2 - Grovehurst Road	2.48	0.03	0.31	3.37	12.13			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.49	0.03	0.25	0.49	0.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.63	0.03	0.28	2.63	4.92			N/A	N/A
	3 - A249 offslip (SB)	35.18	14.20	32.60	54.66	62.30			N/A	N/A
	4 - Swale Way	3.29	0.03	0.32	5.28	16.85			N/A	N/A
	5 - Grovehurst Road	8.76	0.09	2.10	24.74	37.56			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	7.41	0.04	0.36	16.50	40.70			N/A	N/A
	2 - Grovehurst Road	2.74	0.03	0.30	2.78	12.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.03	0.30	1.39	2.27			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.80	0.03	0.27	2.80	2.80			N/A	N/A
	3 - A249 offslip (SB)	71.64	38.26	68.76	101.44	112.26			N/A	N/A
	4 - Swale Way	3.41	0.03	0.29	3.41	11.53			N/A	N/A
	5 - Grovehurst Road	11.01	0.06	1.36	32.27	54.18			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.36	0.04	0.44	6.48	11.19			N/A	N/A
	2 - Grovehurst Road	0.98	0.05	0.60	1.98	2.90			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.41	0.00	0.00	0.41	0.41			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.63	0.10	1.23	3.21	4.28			N/A	N/A
	3 - A249 offslip (SB)	27.76	11.39	25.69	42.65	48.51			N/A	N/A
	4 - Swale Way	1.84	0.06	0.85	4.59	6.78			N/A	N/A
	5 - Grovehurst Road	2.21	0.04	0.39	5.85	11.10			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.24	0.03	0.31	2.25	6.31			N/A	N/A
	2 - Grovehurst Road	0.53	0.03	0.34	1.08	2.00			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.31	0.00	0.00	0.31	0.31			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.02	0.05	0.50	2.25	3.34			N/A	N/A
	3 - A249 offslip (SB)	0.95	0.03	0.26	0.95	0.95			N/A	N/A
	4 - Swale Way	1.02	0.04	0.36	2.53	4.63			N/A	N/A
	5 - Grovehurst Road	1.08	0.03	0.29	1.47	4.81			N/A	N/A

# 2024 + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	41.33	E
2	South	Standard Roundabout	1, 2, 3, 4, 5	339.29	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	884	100.000
	2 - Grovehurst Road		ONE HOUR	✓	235	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	481	100.000
	4 - Swale Way		ONE HOUR	✓	1252	100.000
	5 - Grovehurst Road		ONE HOUR	✓	595	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	183	0	701
		2 - Grovehurst Road	0	0	27	208
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	264	540	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	45	0	0	467	393
		3 - A249 offslip (SB)	1	27	0	198	255
		4 - Swale Way	662	431	0	0	159
		5 - Grovehurst Road	150	339	0	106	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	2	0	18
		2 - Grovehurst Road	0	0	0	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	3	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	9	0	0	26	2
		3 - A249 offslip (SB)	0	11	0	8	3
		4 - Swale Way	17	2	0	0	3
		5 - Grovehurst Road	1	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.00	77.50	20.7	75.3	F	811	1217
	2 - Grovehurst Road	0.35	7.51	0.5	2.4	A	216	323
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.42	3.61	0.7	1.5	A	682	1023
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.53	4.09	1.1	1.5	A	830	1245
	3 - A249 offslip (SB)	0.58	9.48	1.4	4.0	A	441	662
	4 - Swale Way	1.44	854.98	264.5	264.5	F	1149	1723
	5 - Grovehurst Road	0.77	17.85	3.2	15.9	C	546	819



## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	666	166	591	1085	0.613	659	0	0.0	1.5	8.345	A
	2 - Grovehurst Road	177	44	920	1002	0.177	176	330	0.0	0.2	4.356	A
	3 - A249 onslip (NB)			679				417				
	4 - B2005 - link	593	148	0	1730	0.343	591	679	0.0	0.5	3.156	A
2 - South	1 - A249 onslip (SB)			670				635				
	2 - B2005 - link	676	169	79	1881	0.360	674	591	0.0	0.6	2.977	A
	3 - A249 offslip (SB)	362	91	753	1217	0.298	360	0	0.0	0.4	4.197	A
	4 - Swale Way	943	236	538	1120	0.842	924	575	0.0	4.7	17.012	C
	5 - Grovehurst Road	448	112	861	896	0.500	444	601	0.0	1.0	7.902	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	795	199	682	1017	0.781	788	0	1.5	3.3	15.225	C
	2 - Grovehurst Road	211	53	1082	872	0.242	211	387	0.2	0.3	5.442	A
	3 - A249 onslip (NB)			811				482				
	4 - B2005 - link	682	171	0	1730	0.394	682	811	0.5	0.6	3.432	A
2 - South	1 - A249 onslip (SB)			775				717				
	2 - B2005 - link	808	202	95	1872	0.432	807	680	0.6	0.8	3.381	A
	3 - A249 offslip (SB)	432	108	902	1082	0.399	431	0	0.4	0.7	5.522	A
	4 - Swale Way	1126	281	645	1049	1.073	1025	689	4.7	29.7	74.120	F
	5 - Grovehurst Road	535	134	960	819	0.653	532	710	1.0	1.8	12.397	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	973	243	733	979	0.994	927	0	3.3	14.9	47.945	E
	2 - Grovehurst Road	259	65	1228	754	0.343	258	433	0.3	0.5	7.245	A
	3 - A249 onslip (NB)			963				522				
	4 - B2005 - link	733	183	0	1730	0.424	733	963	0.6	0.7	3.612	A
2 - South	1 - A249 onslip (SB)			847				721				
	2 - B2005 - link	959	240	116	1859	0.516	958	731	0.8	1.1	3.989	A
	3 - A249 offslip (SB)	530	132	1074	928	0.571	527	0	0.7	1.3	8.923	A
	4 - Swale Way	1378	345	774	962	1.432	962	827	29.7	133.9	315.655	F
	5 - Grovehurst Road	655	164	918	852	0.769	650	817	1.8	3.1	17.384	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	973	243	734	978	0.995	950	0	14.9	20.7	77.496	F
	2 - Grovehurst Road	259	65	1246	738	0.351	259	438	0.5	0.5	7.507	A
	3 - A249 onslip (NB)			982				523				
	4 - B2005 - link	734	184	0	1730	0.424	734	982	0.7	0.7	3.614	A
2 - South	1 - A249 onslip (SB)			848				720				
	2 - B2005 - link	978	245	117	1859	0.526	978	731	1.1	1.1	4.088	A
	3 - A249 offslip (SB)	530	132	1095	909	0.583	529	0	1.3	1.4	9.480	A
	4 - Swale Way	1378	345	785	955	1.444	955	839	133.9	239.8	688.302	F
	5 - Grovehurst Road	655	164	913	856	0.766	655	827	3.1	3.2	17.848	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	795	199	688	1013	0.785	861	0	20.7	4.0	31.312	D
	2 - Grovehurst Road	211	53	1145	820	0.258	212	404	0.5	0.4	5.930	A
	3 - A249 onslip (NB)			871				486				
	4 - B2005 - link	687	172	0	1730	0.397	688	871	0.7	0.7	3.457	A
	1 - A249 onslip (SB)			782				723				

2 - South	2 - B2005 - link	869	217	96	1871	0.465	870	685	1.1	0.9	3.602	A
	3 - A249 offslip (SB)	432	108	966	1024	0.422	435	0	1.4	0.7	6.138	A
	4 - Swale Way	1126	281	677	1027	1.096	1027	724	239.8	264.5	854.976	F
	5 - Grovehurst Road	535	134	965	815	0.656	540	739	3.2	2.0	13.288	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	666	166	661	1033	0.644	674	0	4.0	1.9	10.264	B
	2 - Grovehurst Road	177	44	978	958	0.185	177	356	0.4	0.2	4.618	A
	3 - A249 onslip (NB)			692				464				
	4 - B2005 - link	660	165	0	1730	0.382	661	692	0.7	0.6	3.367	A
2 - South	1 - A249 onslip (SB)			739				735				
	2 - B2005 - link	689	172	80	1880	0.367	691	659	0.9	0.6	3.027	A
	3 - A249 offslip (SB)	362	91	771	1201	0.302	363	0	0.7	0.4	4.303	A
	4 - Swale Way	943	236	548	1113	0.847	1109	586	264.5	222.8	791.253	F
	5 - Grovehurst Road	448	112	1024	769	0.582	450	633	2.0	1.4	11.358	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.55	0.42	1.40	2.29	2.78			N/A	N/A
	2 - Grovehurst Road	0.21	0.00	0.00	0.21	0.21			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.56	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.42	0.00	0.00	0.42	0.42			N/A	N/A
	4 - Swale Way	4.71	0.03	0.29	4.71	17.89			N/A	N/A
	5 - Grovehurst Road	0.98	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.32	0.07	1.19	8.94	13.51			N/A	N/A
	2 - Grovehurst Road	0.32	0.00	0.00	0.32	0.32			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.65	0.22	0.94	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.76	0.10	0.85	1.41	1.48			N/A	N/A
	3 - A249 offslip (SB)	0.66	0.08	0.76	1.37	1.44			N/A	N/A
	4 - Swale Way	29.74	0.82	18.05	72.02	96.39			N/A	N/A
	5 - Grovehurst Road	1.82	0.09	1.20	3.94	5.47			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	14.89	0.35	8.44	36.47	49.33			N/A	N/A
	2 - Grovehurst Road	0.52	0.03	0.25	0.52	0.52			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.73	0.03	0.25	0.73	0.73			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.06	0.03	0.26	1.06	1.06			N/A	N/A
	3 - A249 offslip (SB)	1.30	0.03	0.26	1.30	1.30			N/A	N/A
	4 - Swale Way	133.93	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.09	0.03	0.32	5.08	15.93			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	20.67	0.26	9.99	53.90	75.31			N/A	N/A
	2 - Grovehurst Road	0.53	0.03	0.31	1.50	2.40			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.73	0.03	0.27	0.73	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.10	0.03	0.27	1.10	1.17			N/A	N/A
	3 - A249 offslip (SB)	1.37	0.03	0.28	1.37	4.00			N/A	N/A
	4 - Swale Way	239.85	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.16	0.03	0.28	3.16	9.59			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.02	0.04	0.42	11.03	20.79			N/A	N/A
	2 - Grovehurst Road	0.35	0.00	0.00	0.35	0.35			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.66	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.87	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.74	0.12	0.88	1.39	1.45			N/A	N/A
	4 - Swale Way	264.49	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.98	0.05	0.48	5.31	8.52			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.87	0.03	0.30	2.33	8.91			N/A	N/A
	2 - Grovehurst Road	0.23	0.00	0.00	0.23	0.23			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.62	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.58	0.10	0.83	1.37	1.43			N/A	N/A
	3 - A249 offslip (SB)	0.43	0.04	0.37	1.20	1.36			N/A	N/A
	4 - Swale Way	222.84	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.43	0.04	0.43	3.74	6.15			N/A	N/A

# 2024 + K3 Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	16.99	C
2	South	Standard Roundabout	1, 2, 3, 4, 5	62.82	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	863	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	692	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	821
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	147	327	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	141	0	0	910	183
		3 - A249 offslip (SB)	1	18	0	377	174
		4 - Swale Way	389	226	0	0	77
		5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	7	0	18
		2 - Grovehurst Road	0	0	8	3
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	7	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	16	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	39	10	0	0	9
		5 - Grovehurst Road	1	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.87	23.76	5.9	30.3	C	792	1188
	2 - Grovehurst Road	0.70	17.26	2.2	9.1	C	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.31	3.15	0.5	1.9	A	437	655
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.74	7.38	2.7	5.4	A	1136	1704
	3 - A249 offslip (SB)	1.22	297.32	58.1	98.0	F	523	785
	4 - Swale Way	0.78	16.39	3.4	16.3	C	635	952
	5 - Grovehurst Road	0.81	21.80	3.9	19.5	C	561	841

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	650	162	355	1221	0.532	645	0	0.0	1.1	6.209	A
	2 - Grovehurst Road	331	83	859	1014	0.327	329	142	0.0	0.5	5.240	A
	3 - A249 onslip (NB)			924				264				
	4 - B2005 - link	356	89	0	1664	0.214	355	924	0.0	0.3	2.748	A
2 - South	1 - A249 onslip (SB)			485				551				
	2 - B2005 - link	927	232	129	1885	0.492	923	357	0.0	1.0	3.725	A
	3 - A249 offslip (SB)	429	107	1051	947	0.453	426	0	0.0	0.8	6.860	A
	4 - Swale Way	521	130	386	1064	0.490	517	1091	0.0	0.9	6.540	A
	5 - Grovehurst Road	460	115	579	1066	0.432	457	324	0.0	0.8	5.884	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	776	194	426	1167	0.665	773	0	1.1	1.9	9.064	A
	2 - Grovehurst Road	396	99	1029	878	0.451	394	170	0.5	0.8	7.427	A
	3 - A249 onslip (NB)			1107				316				
	4 - B2005 - link	427	107	0	1664	0.256	426	1107	0.3	0.3	2.909	A
2 - South	1 - A249 onslip (SB)			581				660				
	2 - B2005 - link	1109	277	154	1870	0.593	1108	427	1.0	1.4	4.711	A
	3 - A249 offslip (SB)	512	128	1262	764	0.670	508	0	0.8	1.9	13.805	B
	4 - Swale Way	622	156	463	1019	0.610	620	1307	0.9	1.5	8.956	A
	5 - Grovehurst Road	549	137	694	967	0.568	547	388	0.8	1.3	8.520	A

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	950	238	515	1099	0.864	936	0	1.9	5.5	20.466	C
	2 - Grovehurst Road	484	121	1246	704	0.689	479	205	0.8	2.1	15.710	C
	3 - A249 onslip (NB)			1343				383				
	4 - B2005 - link	515	129	0	1664	0.310	515	1343	0.3	0.4	3.134	A
2 - South	1 - A249 onslip (SB)			703				802				
	2 - B2005 - link	1346	336	187	1850	0.728	1341	516	1.4	2.6	7.014	A
	3 - A249 offslip (SB)	628	157	1528	532	1.179	519	0	1.9	29.1	125.696	F
	4 - Swale Way	762	190	528	981	0.777	755	1519	1.5	3.2	15.465	C
	5 - Grovehurst Road	673	168	842	841	0.800	663	441	1.3	3.6	19.359	C

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	950	238	520	1095	0.867	948	0	5.5	5.9	23.756	C
	2 - Grovehurst Road	484	121	1261	691	0.701	484	208	2.1	2.2	17.261	C
	3 - A249 onslip (NB)			1358				386				
	4 - B2005 - link	520	130	0	1664	0.313	520	1358	0.4	0.5	3.148	A
2 - South	1 - A249 onslip (SB)			710				811				
	2 - B2005 - link	1362	340	189	1848	0.737	1361	521	2.6	2.7	7.378	A
	3 - A249 offslip (SB)	628	157	1550	513	1.224	511	0	29.1	58.1	297.316	F
	4 - Swale Way	762	190	531	980	0.778	761	1531	3.2	3.4	16.394	C
	5 - Grovehurst Road	673	168	849	834	0.806	672	443	3.6	3.9	21.800	C

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	776	194	441	1156	0.671	791	0	5.9	2.1	10.269	B
	2 - Grovehurst Road	396	99	1057	856	0.462	401	175	2.2	0.9	8.015	A
	3 - A249 onslip (NB)			1131				327				
	4 - B2005 - link	441	110	0	1664	0.265	441	1131	0.5	0.4	2.947	A
	1 - A249 onslip (SB)			599				673				

2 - South	2 - B2005 - link	1134	283	157	1868	0.607	1139	441	2.7	1.6	4.971	A
	3 - A249 offslip (SB)	512	128	1296	734	0.698	722	0	58.1	5.8	166.829	F
	4 - Swale Way	622	156	543	972	0.640	628	1474	3.4	1.8	10.655	B
	5 - Grovehurst Road	549	137	712	953	0.576	559	459	3.9	1.4	9.363	A

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	650	162	362	1216	0.535	653	0	2.1	1.2	6.448	A
	2 - Grovehurst Road	331	83	871	1005	0.330	333	144	0.9	0.5	5.372	A
	3 - A249 onslip (NB)			936				268				
	4 - B2005 - link	361	90	0	1664	0.217	362	936	0.4	0.3	2.767	A
2 - South	1 - A249 onslip (SB)			492				559				
	2 - B2005 - link	938	234	130	1884	0.498	940	362	1.6	1.0	3.821	A
	3 - A249 offslip (SB)	429	107	1070	931	0.461	449	0	5.8	0.9	7.762	A
	4 - Swale Way	521	130	399	1057	0.493	524	1120	1.8	1.0	6.805	A
	5 - Grovehurst Road	460	115	588	1058	0.435	462	335	1.4	0.8	6.065	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.12	0.55	1.03	1.45	1.50			N/A	N/A
	2 - Grovehurst Road	0.48	0.00	0.00	0.48	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.96	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.82	0.05	0.57	1.57	2.05			N/A	N/A
	4 - Swale Way	0.95	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	0.75	0.55	1.00	1.40	1.45			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.93	0.05	0.63	5.00	7.77			N/A	N/A
	2 - Grovehurst Road	0.81	0.06	0.73	1.30	1.76			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.44	0.05	0.56	3.57	5.40			N/A	N/A
	3 - A249 offslip (SB)	1.95	0.04	0.39	5.16	9.63			N/A	N/A
	4 - Swale Way	1.53	0.06	0.89	3.54	5.02			N/A	N/A
	5 - Grovehurst Road	1.29	0.06	0.67	2.94	4.36			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	5.45	0.04	0.40	14.31	29.48			N/A	N/A
	2 - Grovehurst Road	2.10	0.03	0.29	2.10	8.75			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.60	0.03	0.27	2.60	4.75			N/A	N/A
	3 - A249 offslip (SB)	29.07	9.69	26.29	47.70	55.33			N/A	N/A
	4 - Swale Way	3.23	0.03	0.32	4.84	16.28			N/A	N/A
	5 - Grovehurst Road	3.62	0.03	0.34	7.70	19.53			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	5.94	0.03	0.33	9.21	30.30			N/A	N/A
	2 - Grovehurst Road	2.25	0.03	0.29	2.25	9.13			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.31	1.38	1.88			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.74	0.03	0.27	2.74	2.74			N/A	N/A
	3 - A249 offslip (SB)	58.12	26.67	54.86	87.08	98.02			N/A	N/A
	4 - Swale Way	3.36	0.03	0.29	3.36	10.80			N/A	N/A
	5 - Grovehurst Road	3.89	0.03	0.30	4.07	17.89			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.11	0.04	0.44	5.75	9.73			N/A	N/A
	2 - Grovehurst Road	0.87	0.06	0.67	1.65	2.18			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.57	0.10	1.19	3.05	4.08			N/A	N/A
	3 - A249 offslip (SB)	5.77	0.08	1.34	16.01	24.21			N/A	N/A
	4 - Swale Way	1.83	0.06	0.90	4.52	6.63			N/A	N/A
	5 - Grovehurst Road	1.39	0.05	0.47	3.53	5.54			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.17	0.03	0.32	2.42	5.92			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.35	1.44	1.67			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.00	0.05	0.50	2.17	3.22			N/A	N/A
	3 - A249 offslip (SB)	0.87	0.03	0.26	0.87	0.87			N/A	N/A
	4 - Swale Way	0.99	0.04	0.36	2.45	4.49			N/A	N/A
	5 - Grovehurst Road	0.78	0.03	0.33	1.74	3.70			N/A	N/A



# 2024 + K3 Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	28.39	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	306.69	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	828	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	443	100.000
	4 - Swale Way		ONE HOUR	✓	1277	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	648
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	262	522	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	42	0	0	480	322
		3 - A249 offslip (SB)	1	27	0	199	216
		4 - Swale Way	686	432	0	0	159
	5 - Grovehurst Road	110	318	0	106	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	1	0	22
		2 - Grovehurst Road	0	0	0	1
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	4	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	28	1
		3 - A249 offslip (SB)	0	11	0	8	4
		4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.95	52.60	12.5	60.5	F	760	1140
	2 - Grovehurst Road	0.33	6.95	0.5	1.9	A	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.42	3.62	0.7	1.5	A	672	1008
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.51	3.99	1.0	1.5	A	781	1172
	3 - A249 offslip (SB)	0.52	8.08	1.1	3.7	A	407	610
	4 - Swale Way	1.38	726.70	231.1	231.1	F	1172	1758
	5 - Grovehurst Road	0.73	16.61	2.6	12.4	C	490	735

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	623	156	576	1068	0.584	618	0	0.0	1.4	7.913	A
	2 - Grovehurst Road	171	43	867	1037	0.165	170	327	0.0	0.2	4.150	A
	3 - A249 onslip (NB)			633				404				
	4 - B2005 - link	578	145	0	1719	0.336	576	633	0.0	0.5	3.145	A
2 - South	1 - A249 onslip (SB)			656				622				
	2 - B2005 - link	637	159	79	1854	0.343	635	577	0.0	0.5	2.947	A
	3 - A249 offslip (SB)	334	83	714	1236	0.270	332	0	0.0	0.4	3.976	A
	4 - Swale Way	961	240	457	1160	0.829	944	589	0.0	4.4	15.604	C
	5 - Grovehurst Road	402	101	879	874	0.460	399	522	0.0	0.8	7.517	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	744	186	671	998	0.746	739	0	1.4	2.8	13.581	B
	2 - Grovehurst Road	204	51	1025	907	0.225	204	385	0.2	0.3	5.114	A
	3 - A249 onslip (NB)			758				471				
	4 - B2005 - link	671	168	0	1719	0.390	671	758	0.5	0.6	3.432	A
2 - South	1 - A249 onslip (SB)			765				711				
	2 - B2005 - link	762	190	95	1845	0.413	761	670	0.5	0.7	3.320	A
	3 - A249 offslip (SB)	398	100	856	1107	0.360	397	0	0.4	0.6	5.067	A
	4 - Swale Way	1148	287	547	1101	1.043	1068	706	4.4	24.3	61.365	F
	5 - Grovehurst Road	480	120	998	781	0.615	477	617	0.8	1.5	11.751	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	912	228	725	959	0.951	882	0	2.8	10.2	37.366	E
	2 - Grovehurst Road	250	62	1173	783	0.319	249	434	0.3	0.5	6.741	A
	3 - A249 onslip (NB)			910				512				
	4 - B2005 - link	725	181	0	1719	0.422	725	910	0.6	0.7	3.622	A
2 - South	1 - A249 onslip (SB)			840				717				
	2 - B2005 - link	914	228	116	1832	0.499	913	724	0.7	1.0	3.910	A
	3 - A249 offslip (SB)	488	122	1029	950	0.513	486	0	0.6	1.0	7.718	A
	4 - Swale Way	1406	352	661	1026	1.371	1024	853	24.3	119.7	262.205	F
	5 - Grovehurst Road	588	147	973	801	0.734	584	713	1.5	2.6	16.231	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	912	228	726	958	0.952	902	0	10.2	12.5	52.601	F
	2 - Grovehurst Road	250	62	1189	768	0.325	250	439	0.5	0.5	6.946	A
	3 - A249 onslip (NB)			926				513				
	4 - B2005 - link	726	181	0	1719	0.422	726	926	0.7	0.7	3.625	A
2 - South	1 - A249 onslip (SB)			841				716				
	2 - B2005 - link	931	233	117	1832	0.508	931	725	1.0	1.0	3.994	A
	3 - A249 offslip (SB)	488	122	1048	933	0.523	488	0	1.0	1.1	8.076	A
	4 - Swale Way	1406	352	670	1020	1.379	1020	865	119.7	216.3	583.898	F
	5 - Grovehurst Road	588	147	970	804	0.731	588	720	2.6	2.6	16.610	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	744	186	682	990	0.752	782	0	12.5	3.2	19.911	C
	2 - Grovehurst Road	204	51	1066	872	0.234	205	398	0.5	0.3	5.397	A
	3 - A249 onslip (NB)			792				479				
	4 - B2005 - link	682	171	0	1719	0.397	682	792	0.7	0.7	3.476	A
2 - South	1 - A249 onslip (SB)			777				725				

2 - South	2 - B2005 - link	798	199	96	1844	0.432	799	681	1.0	0.8	3.445	A
	3 - A249 offslip (SB)	398	100	895	1072	0.372	400	0	1.1	0.6	5.376	A
	4 - Swale Way	1148	287	565	1089	1.054	1089	730	216.3	231.1	726.695	F
	5 - Grovehurst Road	480	120	1018	765	0.627	484	635	2.6	1.7	12.956	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	623	156	652	1012	0.616	630	0	3.2	1.6	9.564	A
	2 - Grovehurst Road	171	43	927	991	0.172	171	355	0.3	0.2	4.393	A
	3 - A249 onslip (NB)			644				454				
	4 - B2005 - link	651	163	0	1719	0.379	652	644	0.7	0.6	3.376	A
2 - South	1 - A249 onslip (SB)			730				734				
	2 - B2005 - link	647	162	80	1853	0.349	648	650	0.8	0.5	2.988	A
	3 - A249 offslip (SB)	334	83	729	1223	0.273	334	0	0.6	0.4	4.057	A
	4 - Swale Way	961	240	464	1155	0.832	1150	599	231.1	183.9	649.882	F
	5 - Grovehurst Road	402	101	1060	731	0.550	404	554	1.7	1.3	11.074	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.37	0.54	1.28	1.81	1.97			N/A	N/A
	2 - Grovehurst Road	0.20	0.00	0.00	0.20	0.20			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	4 - Swale Way	4.37	0.03	0.31	5.74	21.26			N/A	N/A
	5 - Grovehurst Road	0.84	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.77	0.06	1.02	7.39	11.20			N/A	N/A
	2 - Grovehurst Road	0.29	0.00	0.00	0.29	0.29			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.64	0.21	0.93	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.70	0.10	0.84	1.38	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.56	0.07	0.70	1.34	1.42			N/A	N/A
	4 - Swale Way	24.31	0.65	14.62	58.89	78.91			N/A	N/A
	5 - Grovehurst Road	1.55	0.09	1.15	3.09	4.18			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.19	0.10	3.08	28.32	42.01			N/A	N/A
	2 - Grovehurst Road	0.46	0.03	0.25	0.46	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.25	0.72	0.72			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.99	0.03	0.26	0.99	0.99			N/A	N/A
	3 - A249 offslip (SB)	1.04	0.03	0.26	1.04	1.04			N/A	N/A
	4 - Swale Way	119.69	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.59	0.03	0.31	3.16	12.36			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	12.54	0.07	1.39	36.84	60.49			N/A	N/A
	2 - Grovehurst Road	0.48	0.03	0.32	1.44	1.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.73	0.03	0.27	0.73	1.01			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.03	0.03	0.27	1.03	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.08	0.03	0.28	1.08	3.73			N/A	N/A
	4 - Swale Way	216.25	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.65	0.03	0.28	2.65	6.79			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.24	0.04	0.41	8.87	16.54			N/A	N/A
	2 - Grovehurst Road	0.31	0.00	0.00	0.31	0.31			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.66	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.77	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.60	0.10	0.83	1.37	1.43			N/A	N/A
	4 - Swale Way	231.08	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.74	0.05	0.69	4.42	6.68			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.64	0.03	0.31	2.59	8.30			N/A	N/A
	2 - Grovehurst Road	0.21	0.00	0.00	0.21	0.21			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.54	0.54	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.38	0.03	0.30	0.90	1.20			N/A	N/A
	4 - Swale Way	183.87	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.25	0.05	0.46	3.08	4.86			N/A	N/A

# 2024 + K3 and WKN Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	18.71	C
2	South	Standard Roundabout	1, 2, 3, 4, 5	69.14	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	871	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	701	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From	1 - A249 offslip (NB)	0	42	0	829
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	147	327	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	141	0	0	918	183
		3 - A249 offslip (SB)	1	18	0	377	174
		4 - Swale Way	398	226	0	0	77
		5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From	1 - A249 offslip (NB)	0	7	0	19
		2 - Grovehurst Road	0	0	8	3
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	7	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	17	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	41	10	0	0	9
		5 - Grovehurst Road	1	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.88	26.48	6.6	35.7	D	799	1199
	2 - Grovehurst Road	0.71	18.37	2.4	10.1	C	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.31	3.15	0.5	1.9	A	437	655
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.75	7.68	2.9	5.7	A	1143	1714
	3 - A249 offslip (SB)	1.26	332.25	64.5	104.3	F	523	785
	4 - Swale Way	0.79	17.73	3.7	18.5	C	643	965
	5 - Grovehurst Road	0.82	23.88	4.2	21.1	C	561	841

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	656	164	355	1211	0.542	651	0	0.0	1.2	6.382	A
	2 - Grovehurst Road	331	83	865	1005	0.330	329	142	0.0	0.5	5.311	A
	3 - A249 onslip (NB)			930				264				
	4 - B2005 - link	356	89	0	1664	0.214	355	930	0.0	0.3	2.748	A
2 - South	1 - A249 onslip (SB)			485				558				
	2 - B2005 - link	932	233	129	1872	0.498	928	357	0.0	1.0	3.797	A
	3 - A249 offslip (SB)	429	107	1057	937	0.458	426	0	0.0	0.8	6.994	A
	4 - Swale Way	528	132	386	1053	0.501	524	1096	0.0	1.0	6.750	A
	5 - Grovehurst Road	460	115	586	1055	0.436	457	324	0.0	0.8	5.986	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	783	196	426	1157	0.677	780	0	1.2	2.0	9.443	A
	2 - Grovehurst Road	396	99	1036	867	0.456	394	170	0.5	0.8	7.596	A
	3 - A249 onslip (NB)			1114				316				
	4 - B2005 - link	426	107	0	1664	0.256	426	1114	0.3	0.3	2.909	A
2 - South	1 - A249 onslip (SB)			581				668				
	2 - B2005 - link	1116	279	154	1857	0.601	1114	427	1.0	1.5	4.832	A
	3 - A249 offslip (SB)	512	128	1268	752	0.681	508	0	0.8	2.0	14.444	B
	4 - Swale Way	630	158	462	1009	0.625	628	1313	1.0	1.6	9.374	A
	5 - Grovehurst Road	549	137	702	955	0.575	547	388	0.8	1.3	8.777	A

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	959	240	514	1091	0.879	943	0	2.0	6.0	22.223	C
	2 - Grovehurst Road	484	121	1252	692	0.700	479	205	0.8	2.2	16.497	C
	3 - A249 onslip (NB)			1349				382				
	4 - B2005 - link	514	129	0	1664	0.309	514	1349	0.3	0.4	3.132	A
2 - South	1 - A249 onslip (SB)			702				811				
	2 - B2005 - link	1352	338	186	1837	0.736	1347	515	1.5	2.7	7.264	A
	3 - A249 offslip (SB)	628	157	1533	519	1.208	508	0	2.0	31.9	138.463	F
	4 - Swale Way	772	193	523	974	0.793	764	1518	1.6	3.5	16.594	C
	5 - Grovehurst Road	673	168	850	826	0.814	662	438	1.3	3.9	20.793	C

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	959	240	520	1087	0.882	956	0	6.0	6.6	26.481	D
	2 - Grovehurst Road	484	121	1269	678	0.714	484	207	2.2	2.4	18.367	C
	3 - A249 onslip (NB)			1367				386				
	4 - B2005 - link	520	130	0	1664	0.312	520	1367	0.4	0.5	3.146	A
2 - South	1 - A249 onslip (SB)			709				820				
	2 - B2005 - link	1369	342	189	1836	0.746	1368	520	2.7	2.9	7.684	A
	3 - A249 offslip (SB)	628	157	1557	498	1.260	497	0	31.9	64.5	332.249	F
	4 - Swale Way	772	193	525	973	0.793	771	1529	3.5	3.7	17.730	C
	5 - Grovehurst Road	673	168	858	819	0.821	671	438	3.9	4.2	23.880	C

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	783	196	441	1146	0.683	801	0	6.6	2.2	10.921	B
	2 - Grovehurst Road	396	99	1066	842	0.470	401	175	2.4	0.9	8.273	A
	3 - A249 onslip (NB)			1141				327				
	4 - B2005 - link	441	110	0	1664	0.265	441	1141	0.5	0.4	2.945	A
	1 - A249 onslip (SB)			599				682				



2 - South	2 - B2005 - link	1143	286	158	1855	0.616	1148	441	2.9	1.6	5.130	A
	3 - A249 offslip (SB)	512	128	1306	719	0.713	708	0	64.5	15.6	208.234	F
	4 - Swale Way	630	158	539	964	0.653	637	1474	3.7	1.9	11.217	B
	5 - Grovehurst Road	549	137	721	940	0.585	560	455	4.2	1.4	9.762	A

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	656	164	363	1205	0.544	660	0	2.2	1.2	6.656	A
	2 - Grovehurst Road	331	83	878	994	0.333	333	144	0.9	0.5	5.455	A
	3 - A249 onslip (NB)			942				269				
	4 - B2005 - link	363	91	0	1664	0.218	363	942	0.4	0.3	2.768	A
2 - South	1 - A249 onslip (SB)			493				566				
	2 - B2005 - link	944	236	130	1871	0.504	946	363	1.6	1.0	3.901	A
	3 - A249 offslip (SB)	429	107	1076	920	0.466	488	0	15.6	0.9	9.543	A
	4 - Swale Way	528	132	412	1038	0.508	531	1152	1.9	1.0	7.152	A
	5 - Grovehurst Road	460	115	597	1046	0.440	463	347	1.4	0.8	6.192	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.16	0.56	1.01	1.16	1.51			N/A	N/A
	2 - Grovehurst Road	0.49	0.00	0.00	0.49	0.49			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.98	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.83	0.05	0.49	1.70	2.43			N/A	N/A
	4 - Swale Way	0.99	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	0.76	0.55	1.00	1.40	1.45			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.03	0.05	0.64	5.35	8.29			N/A	N/A
	2 - Grovehurst Road	0.83	0.06	0.72	1.40	1.84			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.49	0.05	0.54	3.71	5.65			N/A	N/A
	3 - A249 offslip (SB)	2.04	0.04	0.39	5.41	10.14			N/A	N/A
	4 - Swale Way	1.62	0.06	0.89	3.82	5.53			N/A	N/A
	5 - Grovehurst Road	1.32	0.05	0.65	3.08	4.61			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	6.02	0.04	0.43	16.61	31.88			N/A	N/A
	2 - Grovehurst Road	2.20	0.03	0.30	2.20	9.78			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.70	0.03	0.28	2.70	5.67			N/A	N/A
	3 - A249 offslip (SB)	31.89	11.88	29.24	50.75	58.29			N/A	N/A
	4 - Swale Way	3.52	0.03	0.33	6.26	18.48			N/A	N/A
	5 - Grovehurst Road	3.90	0.04	0.36	9.07	21.10			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	6.65	0.03	0.34	12.74	35.72			N/A	N/A
	2 - Grovehurst Road	2.39	0.03	0.29	2.39	10.10			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.31	1.38	1.88			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.86	0.03	0.27	2.86	2.86			N/A	N/A
	3 - A249 offslip (SB)	64.47	32.30	61.45	93.55	104.29			N/A	N/A
	4 - Swale Way	3.67	0.03	0.29	3.67	13.24			N/A	N/A
	5 - Grovehurst Road	4.25	0.03	0.31	5.55	20.63			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.23	0.04	0.43	6.10	10.53			N/A	N/A
	2 - Grovehurst Road	0.90	0.06	0.65	1.75	2.42			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.63	0.09	1.20	3.32	4.47			N/A	N/A
	3 - A249 offslip (SB)	15.64	2.64	12.89	29.19	35.42			N/A	N/A
	4 - Swale Way	1.95	0.06	0.82	4.93	7.43			N/A	N/A
	5 - Grovehurst Road	1.44	0.05	0.45	3.71	5.92			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.21	0.03	0.32	2.37	6.21			N/A	N/A
	2 - Grovehurst Road	0.50	0.03	0.35	1.47	1.77			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.03	0.05	0.48	2.33	3.48			N/A	N/A
	3 - A249 offslip (SB)	0.89	0.03	0.26	0.89	0.89			N/A	N/A
	4 - Swale Way	1.05	0.04	0.36	2.60	4.92			N/A	N/A
	5 - Grovehurst Road	0.79	0.03	0.32	1.71	3.84			N/A	N/A

# 2024 + K3 and WKN Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	28.74	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	332.03	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	832	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	444	100.000
	4 - Swale Way		ONE HOUR	✓	1298	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	652
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	262	523	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	42	0	0	484	322
		3 - A249 offslip (SB)	1	27	0	200	216
		4 - Swale Way	706	433	0	0	159
		5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	1	0	22
		2 - Grovehurst Road	0	0	0	1
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	3	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	29	1
		3 - A249 offslip (SB)	0	11	0	8	4
		4 - Swale Way	19	3	0	0	3
		5 - Grovehurst Road	0	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.95	53.10	12.7	61.0	F	763	1145
	2 - Grovehurst Road	0.33	6.95	0.5	1.9	A	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.42	3.58	0.7	1.4	A	673	1009
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.51	4.03	1.0	1.4	A	781	1172
	3 - A249 offslip (SB)	0.53	8.17	1.1	3.7	A	407	611
	4 - Swale Way	1.40	781.13	250.8	250.8	F	1191	1787
	5 - Grovehurst Road	0.74	16.79	2.7	12.6	C	490	735

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	626	157	580	1067	0.587	621	0	0.0	1.4	7.971	A
	2 - Grovehurst Road	171	43	873	1035	0.165	170	328	0.0	0.2	4.159	A
	3 - A249 onslip (NB)			636				407				
	4 - B2005 - link	582	146	0	1730	0.337	580	636	0.0	0.5	3.125	A
2 - South	1 - A249 onslip (SB)			656				635				
	2 - B2005 - link	637	159	79	1844	0.345	634	577	0.0	0.5	2.970	A
	3 - A249 offslip (SB)	334	84	714	1233	0.271	333	0	0.0	0.4	3.992	A
	4 - Swale Way	977	244	455	1160	0.843	958	591	0.0	4.8	16.573	C
	5 - Grovehurst Road	402	101	893	862	0.466	399	520	0.0	0.9	7.705	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	748	187	672	1000	0.748	742	0	1.4	2.8	13.657	B
	2 - Grovehurst Road	204	51	1029	907	0.225	204	385	0.2	0.3	5.119	A
	3 - A249 onslip (NB)			761				472				
	4 - B2005 - link	672	168	0	1730	0.389	672	761	0.5	0.6	3.400	A
2 - South	1 - A249 onslip (SB)			761				721				
	2 - B2005 - link	761	190	95	1835	0.415	761	667	0.5	0.7	3.349	A
	3 - A249 offslip (SB)	399	100	855	1104	0.362	398	0	0.4	0.6	5.098	A
	4 - Swale Way	1167	292	545	1101	1.060	1074	708	4.8	28.0	68.052	F
	5 - Grovehurst Road	480	120	1005	775	0.620	477	614	0.9	1.6	11.990	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	916	229	725	962	0.952	886	0	2.8	10.3	37.616	E
	2 - Grovehurst Road	250	62	1177	782	0.320	249	434	0.3	0.5	6.746	A
	3 - A249 onslip (NB)			914				513				
	4 - B2005 - link	725	181	0	1730	0.419	725	914	0.6	0.7	3.582	A
2 - South	1 - A249 onslip (SB)			835				724				
	2 - B2005 - link	913	228	116	1823	0.501	912	719	0.7	1.0	3.949	A
	3 - A249 offslip (SB)	489	122	1028	946	0.517	487	0	0.6	1.0	7.801	A
	4 - Swale Way	1429	357	659	1026	1.393	1025	856	28.0	129.0	284.550	F
	5 - Grovehurst Road	588	147	975	799	0.736	584	709	1.6	2.6	16.417	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	916	229	726	961	0.953	906	0	10.3	12.7	53.097	F
	2 - Grovehurst Road	250	62	1194	768	0.326	250	438	0.5	0.5	6.952	A
	3 - A249 onslip (NB)			930				513				
	4 - B2005 - link	726	182	0	1730	0.420	726	930	0.7	0.7	3.584	A
2 - South	1 - A249 onslip (SB)			837				723				
	2 - B2005 - link	930	233	117	1822	0.511	930	720	1.0	1.0	4.035	A
	3 - A249 offslip (SB)	489	122	1047	929	0.526	489	0	1.0	1.1	8.171	A
	4 - Swale Way	1429	357	668	1020	1.401	1020	868	129.0	231.2	624.559	F
	5 - Grovehurst Road	588	147	972	801	0.734	588	716	2.6	2.7	16.793	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	748	187	682	993	0.753	786	0	12.7	3.3	20.046	C
	2 - Grovehurst Road	204	51	1070	872	0.234	205	398	0.5	0.3	5.400	A
	3 - A249 onslip (NB)			796				478				
	4 - B2005 - link	681	170	0	1730	0.394	682	796	0.7	0.7	3.434	A
2 - South	1 - A249 onslip (SB)			772				732				

2 - South	2 - B2005 - link	798	199	96	1834	0.435	799	676	1.0	0.8	3.479	A
	3 - A249 offslip (SB)	399	100	895	1067	0.374	401	0	1.1	0.6	5.418	A
	4 - Swale Way	1167	292	563	1089	1.072	1089	733	231.2	250.8	781.133	F
	5 - Grovehurst Road	480	120	1020	763	0.629	484	632	2.7	1.8	13.070	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	626	157	651	1016	0.617	633	0	3.3	1.6	9.548	A
	2 - Grovehurst Road	171	43	929	992	0.172	171	354	0.3	0.2	4.387	A
	3 - A249 onslip (NB)			647				454				
	4 - B2005 - link	650	163	0	1730	0.376	651	647	0.7	0.6	3.337	A
2 - South	1 - A249 onslip (SB)			725				742				
	2 - B2005 - link	647	162	80	1844	0.351	648	645	0.8	0.5	3.015	A
	3 - A249 offslip (SB)	334	84	728	1220	0.274	335	0	0.6	0.4	4.074	A
	4 - Swale Way	977	244	462	1155	0.846	1150	601	250.8	207.4	717.337	F
	5 - Grovehurst Road	402	101	1063	729	0.552	404	550	1.8	1.3	11.163	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.39	0.54	1.29	1.83	1.98			N/A	N/A
	2 - Grovehurst Road	0.20	0.00	0.00	0.20	0.20			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	4 - Swale Way	4.75	0.03	0.30	4.75	21.06			N/A	N/A
	5 - Grovehurst Road	0.86	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.80	0.06	1.03	7.47	11.31			N/A	N/A
	2 - Grovehurst Road	0.29	0.00	0.00	0.29	0.29			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.63	0.21	0.93	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.70	0.10	0.84	1.38	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.56	0.07	0.70	1.34	1.42			N/A	N/A
	4 - Swale Way	27.99	0.79	17.03	67.58	90.34			N/A	N/A
	5 - Grovehurst Road	1.58	0.09	1.16	3.18	4.31			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.33	0.11	3.22	28.59	42.26			N/A	N/A
	2 - Grovehurst Road	0.46	0.03	0.25	0.46	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.25	0.72	0.72			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.00	0.03	0.26	1.00	1.00			N/A	N/A
	3 - A249 offslip (SB)	1.05	0.03	0.26	1.05	1.05			N/A	N/A
	4 - Swale Way	128.99	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.62	0.03	0.31	3.31	12.58			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	12.74	0.07	1.53	37.40	61.01			N/A	N/A
	2 - Grovehurst Road	0.48	0.03	0.32	1.44	1.93			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.27	0.72	1.07			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.04	0.03	0.27	1.04	1.43			N/A	N/A
	3 - A249 offslip (SB)	1.10	0.03	0.28	1.10	3.75			N/A	N/A
	4 - Swale Way	231.22	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.68	0.03	0.28	2.68	6.94			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.26	0.04	0.41	8.90	16.65			N/A	N/A
	2 - Grovehurst Road	0.31	0.00	0.00	0.31	0.31			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.65	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.77	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.60	0.10	0.83	1.37	1.43			N/A	N/A
	4 - Swale Way	250.75	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.76	0.05	0.65	4.50	6.84			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.65	0.03	0.31	2.56	8.29			N/A	N/A
	2 - Grovehurst Road	0.21	0.00	0.00	0.21	0.21			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.54	0.54	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.38	0.03	0.30	0.94	1.22			N/A	N/A
	4 - Swale Way	207.44	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.26	0.05	0.45	3.15	4.97			N/A	N/A

# 2024 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	26.11	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	96.02	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	906	100.000
	2 - Grovehurst Road		ONE HOUR	✓	446	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	593	100.000
	4 - Swale Way		ONE HOUR	✓	694	100.000



5 - Grovehurst Road	ONE HOUR	✓	736	100.000
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## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	45	0	861
		2 - Grovehurst Road	0	0	25	421
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	151	366	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	144	0	0	910	225
		3 - A249 offslip (SB)	1	18	0	377	197
		4 - Swale Way	391	226	0	0	77
		5 - Grovehurst Road	287	277	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	13	0	17
		2 - Grovehurst Road	0	0	8	4
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	6	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	16	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	39	10	0	0	9
		5 - Grovehurst Road	1	1	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.93	38.63	10.0	53.6	E	831	1247
	2 - Grovehurst Road	0.77	24.53	3.2	15.8	C	409	614
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.34	3.23	0.5	2.3	A	476	714
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.76	8.03	3.1	6.7	A	1176	1764
	3 - A249 offslip (SB)	1.36	436.58	84.8	125.4	F	544	816
	4 - Swale Way	0.81	19.27	3.9	20.3	C	637	955
	5 - Grovehurst Road	0.97	66.27	14.4	61.3	F	675	1013

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	682	171	387	1205	0.566	677	0	0.0	1.3	6.752	A
	2 - Grovehurst Road	336	84	917	966	0.348	334	147	0.0	0.5	5.674	A
	3 - A249 onslip (NB)			958				292				
	4 - B2005 - link	388	97	0	1674	0.232	387	958	0.0	0.3	2.794	A
2 - South	1 - A249 onslip (SB)			518				615				
	2 - B2005 - link	959	240	128	1886	0.509	955	389	0.0	1.0	3.850	A
	3 - A249 offslip (SB)	446	112	1083	921	0.485	443	0	0.0	0.9	7.475	A
	4 - Swale Way	522	131	437	1033	0.506	518	1089	0.0	1.0	6.948	A
	5 - Grovehurst Road	554	139	583	1067	0.519	550	373	0.0	1.1	6.902	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	814	204	464	1147	0.710	810	0	1.3	2.4	10.559	B
	2 - Grovehurst Road	401	100	1098	823	0.487	399	176	0.5	0.9	8.457	A
	3 - A249 onslip (NB)			1147				351				
	4 - B2005 - link	464	116	0	1674	0.277	464	1147	0.3	0.4	2.975	A
2 - South	1 - A249 onslip (SB)			619				736				
	2 - B2005 - link	1148	287	154	1870	0.614	1145	466	1.0	1.6	4.951	A
	3 - A249 offslip (SB)	533	133	1299	732	0.728	527	0	0.9	2.5	17.013	C
	4 - Swale Way	624	156	522	982	0.635	621	1303	1.0	1.7	9.897	A
	5 - Grovehurst Road	662	165	698	968	0.684	658	445	1.1	2.1	11.462	B

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	998	249	552	1081	0.923	973	0	2.4	8.4	28.757	D
	2 - Grovehurst Road	491	123	1316	652	0.753	484	209	0.9	2.8	20.547	C
	3 - A249 onslip (NB)			1382				418				
	4 - B2005 - link	552	138	0	1674	0.330	552	1382	0.4	0.5	3.207	A
2 - South	1 - A249 onslip (SB)			735				884				
	2 - B2005 - link	1382	346	181	1853	0.746	1377	553	1.6	2.8	7.477	A
	3 - A249 offslip (SB)	653	163	1558	506	1.291	498	0	2.5	41.1	176.389	F
	4 - Swale Way	764	191	579	949	0.805	756	1478	1.7	3.8	17.919	C
	5 - Grovehurst Road	810	203	843	842	0.963	776	492	2.1	10.6	42.107	E

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	998	249	561	1074	0.929	991	0	8.4	10.0	38.634	E
	2 - Grovehurst Road	491	123	1339	634	0.775	489	213	2.8	3.2	24.527	C
	3 - A249 onslip (NB)			1404				424				
	4 - B2005 - link	561	140	0	1674	0.335	561	1404	0.5	0.5	3.233	A
2 - South	1 - A249 onslip (SB)			748				899				
	2 - B2005 - link	1404	351	186	1851	0.759	1404	562	2.8	3.1	8.027	A
	3 - A249 offslip (SB)	653	163	1589	479	1.364	478	0	41.1	84.8	436.584	F
	4 - Swale Way	764	191	579	949	0.806	763	1489	3.8	3.9	19.267	C
	5 - Grovehurst Road	810	203	852	834	0.972	795	491	10.6	14.4	66.267	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	814	204	491	1126	0.723	844	0	10.0	2.7	13.937	B
	2 - Grovehurst Road	401	100	1150	783	0.512	409	185	3.2	1.1	9.835	A
	3 - A249 onslip (NB)			1188				371				
	4 - B2005 - link	491	123	0	1674	0.293	491	1188	0.5	0.4	3.044	A

2 - South	1 - A249 onslip (SB)			659				768				
	2 - B2005 - link	1189	297	166	1863	0.638	1194	493	3.1	1.8	5.425	A
	3 - A249 offslip (SB)	533	133	1360	679	0.785	671	0	84.8	50.2	351.671	F
	4 - Swale Way	624	156	589	943	0.662	632	1442	3.9	2.0	11.836	B
	5 - Grovehurst Road	662	165	717	952	0.695	710	503	14.4	2.4	17.612	C

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	682	171	400	1195	0.571	688	0	2.7	1.4	7.171	A
	2 - Grovehurst Road	336	84	937	951	0.353	338	151	1.1	0.6	5.894	A
	3 - A249 onslip (NB)			972				302				
	4 - B2005 - link	400	100	0	1674	0.239	400	972	0.4	0.3	2.827	A
2 - South	1 - A249 onslip (SB)			532				625				
	2 - B2005 - link	973	243	131	1884	0.516	976	401	1.8	1.1	3.976	A
	3 - A249 offslip (SB)	446	112	1107	900	0.496	643	0	50.2	1.0	32.765	D
	4 - Swale Way	522	131	516	986	0.530	526	1234	2.0	1.1	7.884	A
	5 - Grovehurst Road	554	139	598	1055	0.525	559	444	2.4	1.1	7.338	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.28	0.56	1.18	1.65	1.84			N/A	N/A
	2 - Grovehurst Road	0.53	0.53	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.03	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.93	0.04	0.42	2.16	3.48			N/A	N/A
	4 - Swale Way	1.01	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	1.06	0.50	1.05	1.26	1.64			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.36	0.05	0.67	6.36	9.95			N/A	N/A
	2 - Grovehurst Road	0.93	0.06	0.69	1.80	2.51			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.57	0.05	0.52	3.95	6.10			N/A	N/A
	3 - A249 offslip (SB)	2.50	0.04	0.40	6.78	12.57			N/A	N/A
	4 - Swale Way	1.69	0.06	0.91	4.01	5.85			N/A	N/A
	5 - Grovehurst Road	2.08	0.05	0.49	5.59	8.90			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	8.38	0.06	1.42	24.32	39.46			N/A	N/A
	2 - Grovehurst Road	2.79	0.03	0.32	5.12	14.71			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.49	0.03	0.25	0.49	0.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.84	0.03	0.28	2.84	6.72			N/A	N/A
	3 - A249 offslip (SB)	41.14	19.01	38.75	61.19	68.81			N/A	N/A
	4 - Swale Way	3.76	0.03	0.34	7.63	20.25			N/A	N/A
	5 - Grovehurst Road	10.62	0.14	4.26	28.31	40.49			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or	Probability of exactly reaching
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									exceeding marker	marker
1 - North	1 - A249 offslip (NB)	10.02	0.05	0.46	28.03	53.60			N/A	N/A
	2 - Grovehurst Road	3.19	0.03	0.31	4.46	15.76			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.03	0.30	1.38	2.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	3.06	0.03	0.27	3.06	3.06			N/A	N/A
	3 - A249 offslip (SB)	84.79	50.30	82.22	114.83	125.42			N/A	N/A
	4 - Swale Way	3.94	0.03	0.29	3.94	15.64			N/A	N/A
	5 - Grovehurst Road	14.39	0.11	3.97	40.76	61.34			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.74	0.04	0.43	7.57	13.49			N/A	N/A
	2 - Grovehurst Road	1.07	0.05	0.55	2.40	3.51			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.42	0.00	0.00	0.42	0.42			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.79	0.10	1.28	3.74	4.98			N/A	N/A
	3 - A249 offslip (SB)	50.20	29.92	48.53	67.46	73.59			N/A	N/A
	4 - Swale Way	2.02	0.05	0.69	5.30	8.14			N/A	N/A
	5 - Grovehurst Road	2.39	0.04	0.38	6.30	12.31			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.35	0.03	0.31	2.00	6.73			N/A	N/A
	2 - Grovehurst Road	0.55	0.03	0.33	1.14	2.36			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.32	0.00	0.00	0.32	0.32			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.08	0.05	0.47	2.54	3.83			N/A	N/A
	3 - A249 offslip (SB)	1.01	0.03	0.26	1.01	1.01			N/A	N/A
	4 - Swale Way	1.15	0.04	0.36	2.85	5.47			N/A	N/A
	5 - Grovehurst Road	1.13	0.03	0.29	1.28	4.65			N/A	N/A

# 2024 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	53.26	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	406.02	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	899	100.000
	2 - Grovehurst Road		ONE HOUR	✓	235	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	482	100.000
	4 - Swale Way		ONE HOUR	✓	1278	100.000

5 - Grovehurst Road	ONE HOUR	✓	595	100.000
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## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	183	0	716
		2 - Grovehurst Road	0	0	27	208
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	264	541	0	

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	45	0	0	482	393
		3 - A249 offslip (SB)	1	27	0	199	255
		4 - Swale Way	687	432	0	0	159
	5 - Grovehurst Road	150	339	0	106	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	2	0	20
		2 - Grovehurst Road	0	0	0	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0	

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	9	0	0	29	2
		3 - A249 offslip (SB)	0	11	0	8	3
		4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	1	2	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.02	99.38	28.1	83.3	F	825	1237
	2 - Grovehurst Road	0.36	7.70	0.5	2.5	A	216	323
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.42	3.59	0.7	1.5	A	676	1014
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.54	4.24	1.1	1.5	A	843	1264
	3 - A249 offslip (SB)	0.60	9.94	1.4	4.1	A	442	663
	4 - Swale Way	1.49	1013.76	302.7	302.7	F	1173	1759
	5 - Grovehurst Road	0.77	18.32	3.2	16.5	C	546	819

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	677	169	593	1068	0.634	670	0	0.0	1.7	8.913	A
	2 - Grovehurst Road	177	44	932	984	0.180	176	331	0.0	0.2	4.453	A
	3 - A249 onslip (NB)			689				419				
	4 - B2005 - link	595	149	0	1730	0.344	593	689	0.0	0.5	3.163	A
2 - South	1 - A249 onslip (SB)			670				651				
	2 - B2005 - link	686	172	79	1853	0.370	684	591	0.0	0.6	3.073	A
	3 - A249 offslip (SB)	363	91	763	1198	0.303	361	0	0.0	0.4	4.291	A
	4 - Swale Way	962	241	538	1105	0.871	939	586	0.0	5.7	19.676	C
	5 - Grovehurst Road	448	112	877	873	0.513	444	600	0.0	1.0	8.305	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	808	202	677	1006	0.803	800	0	1.7	3.7	16.794	C
	2 - Grovehurst Road	211	53	1092	855	0.247	211	385	0.2	0.3	5.588	A
	3 - A249 onslip (NB)			824				479				
	4 - B2005 - link	677	169	0	1730	0.391	677	824	0.5	0.6	3.416	A
2 - South	1 - A249 onslip (SB)			766				723				
	2 - B2005 - link	820	205	95	1844	0.445	819	672	0.6	0.8	3.509	A
	3 - A249 offslip (SB)	433	108	914	1060	0.409	432	0	0.4	0.7	5.721	A
	4 - Swale Way	1149	287	644	1035	1.110	1019	702	5.7	38.1	91.050	F
	5 - Grovehurst Road	535	134	958	810	0.660	532	705	1.0	1.9	12.773	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	990	247	727	969	1.021	930	0	3.7	18.6	56.635	F
	2 - Grovehurst Road	259	65	1230	741	0.349	258	428	0.3	0.5	7.434	A
	3 - A249 onslip (NB)			969				518				
	4 - B2005 - link	727	182	0	1730	0.421	727	969	0.6	0.7	3.591	A
2 - South	1 - A249 onslip (SB)			838				724				
	2 - B2005 - link	963	241	116	1831	0.526	962	722	0.8	1.1	4.135	A
	3 - A249 offslip (SB)	531	133	1078	911	0.583	528	0	0.7	1.4	9.338	A
	4 - Swale Way	1407	352	768	953	1.477	952	838	38.1	151.8	367.814	F
	5 - Grovehurst Road	655	164	912	847	0.774	650	809	1.9	3.2	17.822	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	990	247	728	969	1.022	952	0	18.6	28.1	99.385	F
	2 - Grovehurst Road	259	65	1248	726	0.356	259	433	0.5	0.5	7.699	A
	3 - A249 onslip (NB)			987				519				
	4 - B2005 - link	728	182	0	1730	0.421	728	987	0.7	0.7	3.593	A
2 - South	1 - A249 onslip (SB)			839				723				
	2 - B2005 - link	982	245	117	1831	0.536	981	722	1.1	1.1	4.238	A
	3 - A249 offslip (SB)	531	133	1098	892	0.595	530	0	1.4	1.4	9.944	A
	4 - Swale Way	1407	352	779	946	1.488	946	850	151.8	267.1	779.426	F
	5 - Grovehurst Road	655	164	907	850	0.770	655	818	3.2	3.2	18.323	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	808	202	678	1005	0.804	902	0	28.1	4.7	48.804	E
	2 - Grovehurst Road	211	53	1174	785	0.269	212	406	0.5	0.4	6.289	A
	3 - A249 onslip (NB)			906				480				
	4 - B2005 - link	678	169	0	1730	0.392	678	906	0.7	0.6	3.425	A

2 - South	1 - A249 onslip (SB)			768				722					
	2 - B2005 - link	904	226	96	1843	0.491		905	672	1.1	1.0	3.840	A
	3 - A249 offslip (SB)	433	108	1001	980	0.442		436	0	1.4	0.8	6.649	A
	4 - Swale Way	1149	287	687	1007	1.141		1007	750	267.1	302.7	1013.763	F
	5 - Grovehurst Road	535	134	951	815	0.656		540	742	3.2	2.0	13.298	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	677	169	652	1024	0.661	688	0	4.7	2.0	11.012	B
	2 - Grovehurst Road	177	44	986	943	0.188	177	354	0.4	0.2	4.706	A
	3 - A249 onslip (NB)			705				459				
	4 - B2005 - link	652	163	0	1730	0.377	652	705	0.6	0.6	3.343	A
2 - South	1 - A249 onslip (SB)			727				737				
	2 - B2005 - link	702	175	80	1852	0.379	703	647	1.0	0.6	3.138	A
	3 - A249 offslip (SB)	363	91	783	1180	0.308	364	0	0.8	0.4	4.424	A
	4 - Swale Way	962	241	549	1098	0.877	1094	599	302.7	269.8	942.214	F
	5 - Grovehurst Road	448	112	1013	766	0.585	450	629	2.0	1.4	11.481	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.69	0.32	1.48	2.70	3.27			N/A	N/A
	2 - Grovehurst Road	0.22	0.00	0.00	0.22	0.22			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.59	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.43	0.00	0.00	0.43	0.43			N/A	N/A
	4 - Swale Way	5.68	0.03	0.28	5.68	14.19			N/A	N/A
	5 - Grovehurst Road	1.03	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.73	0.07	1.37	10.01	14.95			N/A	N/A
	2 - Grovehurst Road	0.33	0.00	0.00	0.33	0.33			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.64	0.22	0.94	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.80	0.10	0.86	1.19	1.19			N/A	N/A
	3 - A249 offslip (SB)	0.68	0.08	0.77	1.38	1.46			N/A	N/A
	4 - Swale Way	38.10	0.84	22.43	93.90	126.65			N/A	N/A
	5 - Grovehurst Road	1.87	0.09	1.23	4.08	5.66			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	18.64	1.19	12.88	41.45	53.56			N/A	N/A
	2 - Grovehurst Road	0.53	0.03	0.25	0.53	0.53			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.25	0.72	0.72			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.10	0.03	0.26	1.10	1.10			N/A	N/A
	3 - A249 offslip (SB)	1.36	0.03	0.27	1.36	1.36			N/A	N/A
	4 - Swale Way	151.77	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.17	0.03	0.32	5.49	16.51			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or	Probability of exactly reaching



									exceeding marker	marker
1 - North	1 - A249 offslip (NB)	28.06	1.00	19.10	63.97	83.33			N/A	N/A
	2 - Grovehurst Road	0.55	0.03	0.31	1.00	2.51			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.27	0.72	1.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.15	0.03	0.26	1.15	1.15			N/A	N/A
	3 - A249 offslip (SB)	1.44	0.03	0.28	1.44	4.14			N/A	N/A
	4 - Swale Way	267.12	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.24	0.03	0.29	3.24	10.25			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.72	0.04	0.44	13.15	24.33			N/A	N/A
	2 - Grovehurst Road	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.65	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.97	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.80	0.14	0.91	1.42	1.48			N/A	N/A
	4 - Swale Way	302.71	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.98	0.05	0.47	5.35	8.73			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.01	0.03	0.30	2.17	9.31			N/A	N/A
	2 - Grovehurst Road	0.23	0.00	0.00	0.23	0.23			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.61	0.11	0.86	1.37	1.44			N/A	N/A
	3 - A249 offslip (SB)	0.45	0.04	0.38	1.23	1.38			N/A	N/A
	4 - Swale Way	269.76	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.45	0.04	0.42	3.78	6.33			N/A	N/A

# 2024 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	29.42	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	104.15	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	914	100.000
	2 - Grovehurst Road		ONE HOUR	✓	446	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	593	100.000
	4 - Swale Way		ONE HOUR	✓	703	100.000

5 - Grovehurst Road	ONE HOUR	✓	736	100.000
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## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	45	0	869
		2 - Grovehurst Road	0	0	25	421
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	151	366	0	

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	144	0	0	918	225
		3 - A249 offslip (SB)	1	18	0	377	197
		4 - Swale Way	400	226	0	0	77
	5 - Grovehurst Road	287	277	0	172	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	13	0	18
		2 - Grovehurst Road	0	0	8	4
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	6	0	

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	17	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	41	10	0	0	9
	5 - Grovehurst Road	1	1	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.94	44.05	11.6	59.2	E	839	1258
	2 - Grovehurst Road	0.79	26.33	3.4	17.4	D	409	614
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.33	3.23	0.5	2.3	A	476	714
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.77	8.34	3.2	7.7	A	1183	1774
	3 - A249 offslip (SB)	1.40	472.89	90.4	131.0	F	544	816
	4 - Swale Way	0.82	21.06	4.3	22.4	C	645	968
	5 - Grovehurst Road	0.99	77.52	17.2	65.4	F	675	1013

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	688	172	387	1195	0.576	683	0	0.0	1.3	6.952	A
	2 - Grovehurst Road	336	84	923	957	0.351	334	147	0.0	0.5	5.756	A
	3 - A249 onslip (NB)			964				292				
	4 - B2005 - link	388	97	0	1674	0.232	387	964	0.0	0.3	2.794	A
2 - South	1 - A249 onslip (SB)			518				621				
	2 - B2005 - link	964	241	128	1873	0.515	960	389	0.0	1.1	3.924	A
	3 - A249 offslip (SB)	446	112	1089	911	0.490	443	0	0.0	0.9	7.635	A
	4 - Swale Way	529	132	437	1022	0.518	525	1095	0.0	1.1	7.181	A
	5 - Grovehurst Road	554	139	589	1057	0.524	550	372	0.0	1.1	7.045	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	822	205	464	1138	0.722	817	0	1.3	2.5	11.068	B
	2 - Grovehurst Road	401	100	1105	812	0.493	399	176	0.5	1.0	8.677	A
	3 - A249 onslip (NB)			1154				351				
	4 - B2005 - link	464	116	0	1674	0.277	464	1154	0.3	0.4	2.975	A
2 - South	1 - A249 onslip (SB)			619				744				
	2 - B2005 - link	1154	288	154	1858	0.621	1152	466	1.1	1.6	5.079	A
	3 - A249 offslip (SB)	533	133	1305	720	0.740	526	0	0.9	2.6	17.969	C
	4 - Swale Way	632	158	522	972	0.650	629	1310	1.1	1.8	10.394	B
	5 - Grovehurst Road	662	165	706	955	0.693	657	445	1.1	2.2	11.923	B

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1006	252	549	1074	0.937	979	0	2.5	9.4	31.456	D
	2 - Grovehurst Road	491	123	1319	642	0.764	483	209	1.0	2.9	21.619	C
	3 - A249 onslip (NB)			1387				416				
	4 - B2005 - link	549	137	0	1674	0.328	549	1387	0.4	0.5	3.200	A
2 - South	1 - A249 onslip (SB)			731				891				
	2 - B2005 - link	1387	347	180	1842	0.753	1381	551	1.6	2.9	7.722	A
	3 - A249 offslip (SB)	653	163	1561	495	1.319	489	0	2.6	43.7	190.111	F
	4 - Swale Way	774	194	574	942	0.822	765	1476	1.8	4.1	19.354	C
	5 - Grovehurst Road	810	203	851	827	0.979	771	488	2.2	12.0	46.562	E

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1006	252	558	1067	0.943	998	0	9.4	11.6	44.052	E
	2 - Grovehurst Road	491	123	1344	623	0.788	489	212	2.9	3.4	26.331	D
	3 - A249 onslip (NB)			1410				423				
	4 - B2005 - link	558	140	0	1674	0.334	558	1410	0.5	0.5	3.226	A
2 - South	1 - A249 onslip (SB)			744				906				
	2 - B2005 - link	1410	353	185	1839	0.767	1409	560	2.9	3.2	8.343	A
	3 - A249 offslip (SB)	653	163	1594	467	1.399	466	0	43.7	90.4	472.889	F
	4 - Swale Way	774	194	574	942	0.822	773	1486	4.1	4.3	21.056	C
	5 - Grovehurst Road	810	203	861	819	0.990	790	486	12.0	17.2	77.519	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	822	205	495	1114	0.737	856	0	11.6	3.0	15.602	C
	2 - Grovehurst Road	401	100	1164	766	0.524	410	187	3.4	1.1	10.367	B
	3 - A249 onslip (NB)			1201				373				
	4 - B2005 - link	495	124	0	1674	0.295	495	1201	0.5	0.4	3.055	A

2 - South	1 - A249 onslip (SB)			665				782				
	2 - B2005 - link	1202	300	168	1849	0.650	1207	497	3.2	1.9	5.653	A
	3 - A249 offslip (SB)	533	133	1376	659	0.809	652	0	90.4	60.7	399.311	F
	4 - Swale Way	632	158	584	936	0.675	641	1444	4.3	2.2	12.513	B
	5 - Grovehurst Road	662	165	726	938	0.705	720	498	17.2	2.5	20.706	C

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	688	172	402	1184	0.581	694	0	3.0	1.4	7.442	A
	2 - Grovehurst Road	336	84	945	940	0.357	338	152	1.1	0.6	6.000	A
	3 - A249 onslip (NB)			979				303				
	4 - B2005 - link	401	100	0	1674	0.240	402	979	0.4	0.3	2.830	A
2 - South	1 - A249 onslip (SB)			534				633				
	2 - B2005 - link	980	245	131	1872	0.523	983	403	1.9	1.1	4.063	A
	3 - A249 offslip (SB)	446	112	1113	889	0.502	685	0	60.7	1.0	57.673	F
	4 - Swale Way	529	132	531	967	0.547	533	1267	2.2	1.2	8.364	A
	5 - Grovehurst Road	554	139	606	1043	0.531	560	458	2.5	1.2	7.533	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.33	0.55	1.23	1.74	1.90			N/A	N/A
	2 - Grovehurst Road	0.54	0.54	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.05	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.95	0.04	0.40	2.29	3.77			N/A	N/A
	4 - Swale Way	1.06	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	1.08	0.37	1.07	1.43	1.74			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.49	0.05	0.71	6.75	10.58			N/A	N/A
	2 - Grovehurst Road	0.96	0.06	0.68	1.87	2.66			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.62	0.05	0.52	4.11	6.38			N/A	N/A
	3 - A249 offslip (SB)	2.65	0.04	0.41	7.21	13.31			N/A	N/A
	4 - Swale Way	1.80	0.06	0.92	4.38	6.39			N/A	N/A
	5 - Grovehurst Road	2.16	0.05	0.49	5.84	9.37			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	9.39	0.08	1.81	26.90	41.80			N/A	N/A
	2 - Grovehurst Road	2.94	0.03	0.33	5.93	15.74			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.49	0.03	0.25	0.49	0.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.94	0.03	0.28	2.94	7.67			N/A	N/A
	3 - A249 offslip (SB)	43.73	21.12	41.40	64.02	71.64			N/A	N/A
	4 - Swale Way	4.13	0.04	0.35	9.36	22.42			N/A	N/A
	5 - Grovehurst Road	12.03	0.22	5.98	30.58	42.31			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or	Probability of exactly reaching
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									exceeding marker	marker
1 - North	1 - A249 offslip (NB)	11.57	0.06	0.98	33.74	59.20			N/A	N/A
	2 - Grovehurst Road	3.41	0.03	0.32	5.40	17.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.03	0.30	1.38	2.25			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	3.19	0.03	0.27	3.19	3.19			N/A	N/A
	3 - A249 offslip (SB)	90.40	55.52	87.95	120.53	131.01			N/A	N/A
	4 - Swale Way	4.34	0.03	0.30	4.34	18.97			N/A	N/A
	5 - Grovehurst Road	17.21	0.19	7.36	45.97	65.41			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.96	0.04	0.43	8.21	14.70			N/A	N/A
	2 - Grovehurst Road	1.12	0.05	0.54	2.58	3.78			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.42	0.00	0.00	0.42	0.42			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.89	0.10	1.31	3.97	5.42			N/A	N/A
	3 - A249 offslip (SB)	60.72	38.84	59.11	79.05	85.43			N/A	N/A
	4 - Swale Way	2.16	0.05	0.57	5.77	9.09			N/A	N/A
	5 - Grovehurst Road	2.53	0.04	0.38	6.63	13.14			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.41	0.03	0.30	1.92	6.89			N/A	N/A
	2 - Grovehurst Road	0.56	0.03	0.32	1.15	2.47			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.32	0.00	0.00	0.32	0.32			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.11	0.05	0.46	2.66	4.04			N/A	N/A
	3 - A249 offslip (SB)	1.05	0.03	0.26	1.05	1.05			N/A	N/A
	4 - Swale Way	1.23	0.04	0.36	3.02	5.96			N/A	N/A
	5 - Grovehurst Road	1.15	0.03	0.28	1.15	4.49			N/A	N/A

# 2024 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	57.46	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	436.07	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	903	100.000
	2 - Grovehurst Road		ONE HOUR	✓	235	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	482	100.000
	4 - Swale Way		ONE HOUR	✓	1298	100.000

5 - Grovehurst Road	ONE HOUR	✓	595	100.000
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## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	183	0	720
		2 - Grovehurst Road	0	0	27	208
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	264	542	0	

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	45	0	0	486	393
		3 - A249 offslip (SB)	1	27	0	199	255
		4 - Swale Way	706	433	0	0	159
	5 - Grovehurst Road	150	339	0	106	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	2	0	21
		2 - Grovehurst Road	0	0	0	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0	

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	9	0	0	29	2
		3 - A249 offslip (SB)	0	11	0	8	3
		4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	1	2	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.03	106.74	30.6	85.5	F	829	1243
	2 - Grovehurst Road	0.36	7.76	0.6	2.5	A	216	323
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.42	3.58	0.7	1.5	A	672	1008
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.54	4.27	1.2	1.5	A	852	1278
	3 - A249 offslip (SB)	0.60	10.12	1.5	4.2	B	442	663
	4 - Swale Way	1.51	1082.62	325.2	325.2	F	1191	1787
	5 - Grovehurst Road	0.77	18.42	3.3	16.6	C	546	819



## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	680	170	593	1060	0.641	673	0	0.0	1.7	9.139	A
	2 - Grovehurst Road	177	44	935	977	0.181	176	331	0.0	0.2	4.489	A
	3 - A249 onslip (NB)			692				419				
	4 - B2005 - link	595	149	0	1730	0.344	593	692	0.0	0.5	3.163	A
2 - South	1 - A249 onslip (SB)			670				664				
	2 - B2005 - link	693	173	79	1852	0.374	691	591	0.0	0.6	3.094	A
	3 - A249 offslip (SB)	363	91	770	1192	0.305	361	0	0.0	0.4	4.327	A
	4 - Swale Way	977	244	540	1102	0.886	952	592	0.0	6.3	21.255	C
	5 - Grovehurst Road	448	112	890	863	0.519	444	602	0.0	1.1	8.512	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	812	203	672	1003	0.810	803	0	1.7	3.9	17.342	C
	2 - Grovehurst Road	211	53	1092	849	0.249	211	383	0.2	0.3	5.636	A
	3 - A249 onslip (NB)			827				476				
	4 - B2005 - link	673	168	0	1730	0.389	672	827	0.5	0.6	3.402	A
2 - South	1 - A249 onslip (SB)			762				730				
	2 - B2005 - link	828	207	95	1843	0.449	827	667	0.6	0.8	3.542	A
	3 - A249 offslip (SB)	433	108	922	1052	0.412	432	0	0.4	0.7	5.797	A
	4 - Swale Way	1167	292	646	1032	1.130	1020	708	6.3	43.1	100.932	F
	5 - Grovehurst Road	535	134	960	807	0.663	532	706	1.1	1.9	12.899	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	994	249	722	966	1.029	930	0	3.9	19.9	59.487	F
	2 - Grovehurst Road	259	65	1227	738	0.351	258	425	0.3	0.5	7.493	A
	3 - A249 onslip (NB)			970				515				
	4 - B2005 - link	723	181	0	1730	0.418	722	970	0.6	0.7	3.574	A
2 - South	1 - A249 onslip (SB)			833				729				
	2 - B2005 - link	970	242	116	1830	0.530	969	717	0.8	1.1	4.171	A
	3 - A249 offslip (SB)	531	133	1084	904	0.587	528	0	0.7	1.4	9.501	A
	4 - Swale Way	1429	357	769	951	1.502	951	843	43.1	162.7	398.322	F
	5 - Grovehurst Road	655	164	912	846	0.775	650	808	1.9	3.2	17.913	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	994	249	723	965	1.030	951	0	19.9	30.6	106.742	F
	2 - Grovehurst Road	259	65	1245	723	0.358	259	430	0.5	0.6	7.757	A
	3 - A249 onslip (NB)			987				516				
	4 - B2005 - link	723	181	0	1730	0.418	723	987	0.7	0.7	3.576	A
2 - South	1 - A249 onslip (SB)			834				728				
	2 - B2005 - link	988	247	117	1830	0.540	988	718	1.1	1.2	4.274	A
	3 - A249 offslip (SB)	531	133	1104	886	0.599	530	0	1.4	1.5	10.119	B
	4 - Swale Way	1429	357	780	944	1.513	944	855	162.7	283.9	831.612	F
	5 - Grovehurst Road	655	164	908	849	0.771	655	816	3.2	3.3	18.418	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	812	203	672	1003	0.809	914	0	30.6	5.0	56.366	F
	2 - Grovehurst Road	211	53	1181	773	0.273	212	405	0.6	0.4	6.420	A
	3 - A249 onslip (NB)			917				476				
	4 - B2005 - link	672	168	0	1730	0.388	672	917	0.7	0.6	3.406	A

2 - South	1 - A249 onslip (SB)			762				727					
	2 - B2005 - link	921	230	96	1842	0.500		922	666	1.2	1.0	3.914	A
	3 - A249 offslip (SB)	433	108	1018	964	0.450		436	0	1.5	0.8	6.851	A
	4 - Swale Way	1167	292	693	1002	1.165		1002	761	283.9	325.2	1082.622	F
	5 - Grovehurst Road	535	134	949	816	0.655		540	745	3.3	2.0	13.265	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	680	170	646	1021	0.666	692	0	5.0	2.1	11.272	B
	2 - Grovehurst Road	177	44	986	938	0.189	178	352	0.4	0.2	4.736	A
	3 - A249 onslip (NB)			709				455				
	4 - B2005 - link	646	162	0	1730	0.374	646	709	0.6	0.6	3.325	A
2 - South	1 - A249 onslip (SB)			721				743				
	2 - B2005 - link	710	178	80	1851	0.384	712	641	1.0	0.6	3.164	A
	3 - A249 offslip (SB)	363	91	792	1172	0.310	364	0	0.8	0.5	4.469	A
	4 - Swale Way	977	244	551	1095	0.893	1091	605	325.2	296.6	1025.694	F
	5 - Grovehurst Road	448	112	1014	765	0.586	450	629	2.0	1.5	11.510	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.74	0.31	1.01	2.81	3.49			N/A	N/A
	2 - Grovehurst Road	0.22	0.00	0.00	0.22	0.22			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.60	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.43	0.00	0.00	0.43	0.43			N/A	N/A
	4 - Swale Way	6.32	0.03	0.28	6.32	11.47			N/A	N/A
	5 - Grovehurst Road	1.06	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.87	0.07	1.43	10.38	15.43			N/A	N/A
	2 - Grovehurst Road	0.33	0.00	0.00	0.33	0.33			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.63	0.22	0.93	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.10	0.86	1.33	1.33			N/A	N/A
	3 - A249 offslip (SB)	0.69	0.08	0.77	1.39	1.46			N/A	N/A
	4 - Swale Way	43.10	0.72	24.27	108.33	147.56			N/A	N/A
	5 - Grovehurst Road	1.89	0.09	1.24	4.13	5.71			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	19.89	1.13	14.35	43.05	55.00			N/A	N/A
	2 - Grovehurst Road	0.53	0.03	0.25	0.53	0.53			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.71	0.03	0.25	0.71	0.71			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.12	0.03	0.26	1.12	1.12			N/A	N/A
	3 - A249 offslip (SB)	1.39	0.03	0.27	1.39	1.43			N/A	N/A
	4 - Swale Way	162.67	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.18	0.03	0.32	5.57	16.62			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or	Probability of exactly reaching
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									exceeding marker	marker
1 - North	1 - A249 offslip (NB)	30.61	1.87	22.15	66.88	85.53			N/A	N/A
	2 - Grovehurst Road	0.55	0.03	0.31	1.00	2.55			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.27	0.72	1.05			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.16	0.03	0.26	1.16	1.16			N/A	N/A
	3 - A249 offslip (SB)	1.46	0.03	0.28	1.46	4.20			N/A	N/A
	4 - Swale Way	283.89	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.26	0.03	0.29	3.26	10.38			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.99	0.04	0.45	14.03	25.67			N/A	N/A
	2 - Grovehurst Road	0.38	0.00	0.00	0.38	0.38			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.64	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.01	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.83	0.15	0.92	1.43	1.49			N/A	N/A
	4 - Swale Way	325.21	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.97	0.05	0.46	5.33	8.76			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.06	0.03	0.30	2.13	9.44			N/A	N/A
	2 - Grovehurst Road	0.23	0.00	0.00	0.23	0.23			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.63	0.12	0.86	1.37	1.44			N/A	N/A
	3 - A249 offslip (SB)	0.45	0.04	0.39	1.24	1.38			N/A	N/A
	4 - Swale Way	296.63	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.45	0.04	0.42	3.80	6.39			N/A	N/A

# 2031, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	14.06	B
2	South	Standard Roundabout	1, 2, 3, 4, 5	50.00	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	838	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	569	100.000
	4 - Swale Way		ONE HOUR	✓	676	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	796
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	147	326	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	141	0	0	885	183
		3 - A249 offslip (SB)	1	18	0	376	174
		4 - Swale Way	374	225	0	0	77
		5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	7	0	17
		2 - Grovehurst Road	0	0	8	3
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	6	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	15	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	36	9	0	0	9
		5 - Grovehurst Road	1	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.83	19.20	4.7	24.1	C	769	1153
	2 - Grovehurst Road	0.67	15.10	2.0	7.3	C	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.31	3.12	0.5	1.9	A	437	655
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.72	6.83	2.5	4.8	A	1113	1670
	3 - A249 offslip (SB)	1.15	226.40	44.4	84.7	F	522	783
	4 - Swale Way	0.75	14.51	2.9	12.9	B	620	930
	5 - Grovehurst Road	0.78	18.91	3.4	16.7	C	561	841

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	631	158	355	1232	0.512	627	0	0.0	1.0	5.905	A
	2 - Grovehurst Road	331	83	840	1036	0.320	329	142	0.0	0.5	5.083	A
	3 - A249 onslip (NB)			906				264				
	4 - B2005 - link	356	89	0	1674	0.213	355	906	0.0	0.3	2.726	A
2 - South	1 - A249 onslip (SB)			485				540				
	2 - B2005 - link	909	227	129	1899	0.479	905	356	0.0	0.9	3.609	A
	3 - A249 offslip (SB)	428	107	1034	969	0.442	425	0	0.0	0.8	6.586	A
	4 - Swale Way	509	127	387	1083	0.470	505	1072	0.0	0.9	6.194	A
	5 - Grovehurst Road	460	115	568	1084	0.424	457	325	0.0	0.7	5.714	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	753	188	426	1178	0.639	751	0	1.0	1.7	8.360	A
	2 - Grovehurst Road	396	99	1007	903	0.438	394	170	0.5	0.8	7.059	A
	3 - A249 onslip (NB)			1085				316				
	4 - B2005 - link	427	107	0	1674	0.255	426	1085	0.3	0.3	2.884	A
2 - South	1 - A249 onslip (SB)			580				647				
	2 - B2005 - link	1088	272	154	1883	0.578	1086	426	0.9	1.4	4.508	A
	3 - A249 offslip (SB)	512	128	1240	790	0.648	508	0	0.8	1.8	12.580	B
	4 - Swale Way	608	152	463	1038	0.586	606	1285	0.9	1.4	8.296	A
	5 - Grovehurst Road	549	137	680	989	0.555	547	389	0.7	1.2	8.105	A

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	923	231	516	1110	0.831	912	0	1.7	4.4	17.290	C
	2 - Grovehurst Road	484	121	1222	732	0.662	480	206	0.8	1.9	14.066	B
	3 - A249 onslip (NB)			1319				383				
	4 - B2005 - link	517	129	0	1674	0.309	516	1319	0.3	0.4	3.109	A
2 - South	1 - A249 onslip (SB)			704				787				
	2 - B2005 - link	1323	331	187	1863	0.710	1318	516	1.4	2.4	6.565	A
	3 - A249 offslip (SB)	626	157	1506	560	1.118	542	0	1.8	23.0	100.388	F
	4 - Swale Way	744	186	537	994	0.749	739	1510	1.4	2.8	13.808	B
	5 - Grovehurst Road	673	168	826	866	0.777	665	449	1.2	3.2	17.242	C

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	923	231	521	1106	0.834	922	0	4.4	4.7	19.198	C
	2 - Grovehurst Road	484	121	1235	722	0.671	484	208	1.9	2.0	15.096	C
	3 - A249 onslip (NB)			1332				387				
	4 - B2005 - link	521	130	0	1674	0.311	521	1332	0.4	0.5	3.121	A
2 - South	1 - A249 onslip (SB)			710				795				
	2 - B2005 - link	1336	334	189	1861	0.718	1335	521	2.4	2.5	6.832	A
	3 - A249 offslip (SB)	626	157	1524	544	1.152	541	0	23.0	44.4	226.403	F
	4 - Swale Way	744	186	541	991	0.751	744	1524	2.8	2.9	14.509	B
	5 - Grovehurst Road	673	168	833	861	0.782	672	452	3.2	3.4	18.906	C

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	753	188	439	1169	0.645	765	0	4.7	1.9	9.145	A
	2 - Grovehurst Road	396	99	1029	886	0.447	400	175	2.0	0.8	7.483	A
	3 - A249 onslip (NB)			1104				325				
	4 - B2005 - link	439	110	0	1674	0.262	439	1104	0.5	0.4	2.916	A
	1 - A249 onslip (SB)			595				658				

2 - South	2 - B2005 - link	1107	277	157	1881	0.589	1111	438	2.5	1.4	4.700	A
	3 - A249 offslip (SB)	512	128	1268	766	0.668	680	0	44.4	2.3	87.971	F
	4 - Swale Way	608	152	528	998	0.609	613	1420	2.9	1.6	9.463	A
	5 - Grovehurst Road	549	137	695	977	0.562	558	446	3.4	1.3	8.742	A

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	631	158	361	1228	0.514	634	0	1.9	1.1	6.092	A
	2 - Grovehurst Road	331	83	851	1027	0.323	333	144	0.8	0.5	5.193	A
	3 - A249 onslip (NB)			916				268				
	4 - B2005 - link	361	90	0	1674	0.215	361	916	0.4	0.3	2.740	A
2 - South	1 - A249 onslip (SB)			490				547				
	2 - B2005 - link	919	230	130	1898	0.484	921	360	1.4	0.9	3.694	A
	3 - A249 offslip (SB)	428	107	1051	954	0.449	434	0	2.3	0.8	7.000	A
	4 - Swale Way	509	127	394	1079	0.472	512	1091	1.6	0.9	6.376	A
	5 - Grovehurst Road	460	115	575	1078	0.427	462	330	1.3	0.8	5.870	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.03	0.55	1.00	1.40	1.45			N/A	N/A
	2 - Grovehurst Road	0.47	0.00	0.00	0.47	0.47			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.91	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.78	0.06	0.72	1.18	1.68			N/A	N/A
	4 - Swale Way	0.87	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	0.73	0.55	1.00	1.40	1.45			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.73	0.05	0.65	4.41	6.71			N/A	N/A
	2 - Grovehurst Road	0.77	0.07	0.74	1.50	1.56			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.35	0.05	0.60	3.24	4.84			N/A	N/A
	3 - A249 offslip (SB)	1.77	0.04	0.39	4.71	8.57			N/A	N/A
	4 - Swale Way	1.38	0.06	0.88	3.00	4.32			N/A	N/A
	5 - Grovehurst Road	1.22	0.06	0.71	2.74	3.91			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.43	0.03	0.35	9.69	24.07			N/A	N/A
	2 - Grovehurst Road	1.87	0.03	0.28	1.87	6.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.44	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.39	0.03	0.27	2.39	3.14			N/A	N/A
	3 - A249 offslip (SB)	23.01	5.30	19.81	41.09	49.00			N/A	N/A
	4 - Swale Way	2.82	0.03	0.30	2.89	12.89			N/A	N/A
	5 - Grovehurst Road	3.21	0.03	0.32	5.55	16.72			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	4.71	0.03	0.30	4.71	20.41			N/A	N/A
	2 - Grovehurst Road	1.98	0.03	0.29	1.98	7.30			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.31	1.38	1.86			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.49	0.03	0.27	2.49	2.49			N/A	N/A
	3 - A249 offslip (SB)	44.35	15.08	40.37	73.03	84.68			N/A	N/A
	4 - Swale Way	2.92	0.03	0.28	2.92	7.64			N/A	N/A
	5 - Grovehurst Road	3.40	0.03	0.29	3.40	13.85			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.86	0.05	0.47	4.95	8.03			N/A	N/A
	2 - Grovehurst Road	0.82	0.06	0.71	1.40	1.84			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.45	0.11	1.18	2.69	3.51			N/A	N/A
	3 - A249 offslip (SB)	2.25	0.03	0.33	4.58	11.96			N/A	N/A
	4 - Swale Way	1.59	0.06	0.91	3.72	5.33			N/A	N/A
	5 - Grovehurst Road	1.31	0.05	0.50	3.18	4.85			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.07	0.03	0.34	2.48	5.33			N/A	N/A
	2 - Grovehurst Road	0.48	0.04	0.36	1.38	1.40			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.95	0.05	0.59	1.91	2.77			N/A	N/A
	3 - A249 offslip (SB)	0.83	0.03	0.26	0.83	0.83			N/A	N/A
	4 - Swale Way	0.90	0.04	0.38	2.18	3.78			N/A	N/A
	5 - Grovehurst Road	0.75	0.03	0.34	1.75	3.41			N/A	N/A



# 2031, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	22.68	C
2	South	Standard Roundabout	1, 2, 3, 4, 5	258.52	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	813	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	442	100.000
	4 - Swale Way		ONE HOUR	✓	1252	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	633
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	262	521	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	42	0	0	465	322
		3 - A249 offslip (SB)	1	27	0	198	216
		4 - Swale Way	662	431	0	0	159
		5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	1	0	20
		2 - Grovehurst Road	0	0	0	1
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	3	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	26	1
		3 - A249 offslip (SB)	0	11	0	8	4
		4 - Swale Way	17	2	0	0	3
		5 - Grovehurst Road	0	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.93	41.91	9.7	51.5	E	746	1119
	2 - Grovehurst Road	0.32	6.69	0.5	1.8	A	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.43	3.63	0.7	1.5	A	682	1023
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.49	3.84	1.0	1.5	A	766	1149
	3 - A249 offslip (SB)	0.51	7.65	1.0	3.6	A	406	608
	4 - Swale Way	1.33	617.22	194.5	200.0	F	1149	1723
	5 - Grovehurst Road	0.73	16.36	2.6	12.0	C	490	735

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	612	153	577	1085	0.564	607	0	0.0	1.3	7.458	A
	2 - Grovehurst Road	171	43	856	1056	0.162	170	327	0.0	0.2	4.061	A
	3 - A249 onslip (NB)			622				404				
	4 - B2005 - link	579	145	0	1730	0.335	577	622	0.0	0.5	3.116	A
2 - South	1 - A249 onslip (SB)			656				605				
	2 - B2005 - link	624	156	79	1876	0.333	622	577	0.0	0.5	2.867	A
	3 - A249 offslip (SB)	333	83	702	1254	0.265	331	0	0.0	0.4	3.897	A
	4 - Swale Way	943	236	456	1176	0.801	928	577	0.0	3.7	13.753	B
	5 - Grovehurst Road	402	101	862	897	0.448	399	521	0.0	0.8	7.177	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	731	183	678	1010	0.723	726	0	1.3	2.5	12.447	B
	2 - Grovehurst Road	204	51	1016	927	0.220	204	388	0.2	0.3	4.978	A
	3 - A249 onslip (NB)			745				475				
	4 - B2005 - link	678	170	0	1730	0.392	678	745	0.5	0.6	3.419	A
2 - South	1 - A249 onslip (SB)			771				702				
	2 - B2005 - link	747	187	95	1866	0.400	746	676	0.5	0.7	3.213	A
	3 - A249 offslip (SB)	397	99	841	1129	0.352	397	0	0.4	0.5	4.913	A
	4 - Swale Way	1126	281	547	1116	1.008	1068	691	3.7	18.0	48.927	E
	5 - Grovehurst Road	480	120	996	794	0.605	477	619	0.8	1.5	11.269	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	895	224	737	967	0.926	872	0	2.5	8.3	31.976	D
	2 - Grovehurst Road	250	62	1169	800	0.312	249	439	0.3	0.4	6.525	A
	3 - A249 onslip (NB)			898				520				
	4 - B2005 - link	737	184	0	1730	0.426	737	898	0.6	0.7	3.621	A
2 - South	1 - A249 onslip (SB)			850				715				
	2 - B2005 - link	901	225	116	1854	0.486	899	734	0.7	0.9	3.770	A
	3 - A249 offslip (SB)	487	122	1015	972	0.501	485	0	0.5	1.0	7.363	A
	4 - Swale Way	1378	345	663	1039	1.327	1037	838	18.0	103.3	220.307	F
	5 - Grovehurst Road	588	147	982	805	0.730	584	718	1.5	2.5	15.929	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	895	224	738	966	0.927	890	0	8.3	9.7	41.906	E
	2 - Grovehurst Road	250	62	1184	788	0.317	250	444	0.4	0.5	6.695	A
	3 - A249 onslip (NB)			913				521				
	4 - B2005 - link	738	185	0	1730	0.427	738	913	0.7	0.7	3.628	A
2 - South	1 - A249 onslip (SB)			852				715				
	2 - B2005 - link	915	229	117	1853	0.494	915	736	0.9	1.0	3.838	A
	3 - A249 offslip (SB)	487	122	1032	957	0.509	487	0	1.0	1.0	7.645	A
	4 - Swale Way	1378	345	670	1034	1.333	1034	848	103.3	189.5	504.156	F
	5 - Grovehurst Road	588	147	980	807	0.728	588	725	2.5	2.6	16.356	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	731	183	695	997	0.733	758	0	9.7	2.9	16.572	C
	2 - Grovehurst Road	204	51	1053	896	0.228	205	401	0.5	0.3	5.211	A
	3 - A249 onslip (NB)			771				487				
	4 - B2005 - link	695	174	0	1730	0.402	695	771	0.7	0.7	3.480	A
2 - South	1 - A249 onslip (SB)			789				725				

2 - South	2 - B2005 - link	774	193	96	1865	0.415	775	693	1.0	0.7	3.306	A
	3 - A249 offslip (SB)	397	99	871	1101	0.361	399	0	1.0	0.6	5.140	A
	4 - Swale Way	1126	281	561	1107	1.017	1106	709	189.5	194.5	617.219	F
	5 - Grovehurst Road	480	120	1030	767	0.626	484	637	2.6	1.7	12.837	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	612	153	664	1020	0.600	618	0	2.9	1.5	9.055	A
	2 - Grovehurst Road	171	43	923	1006	0.170	171	359	0.3	0.2	4.315	A
	3 - A249 onslip (NB)			632				462				
	4 - B2005 - link	664	166	0	1730	0.384	664	632	0.7	0.6	3.380	A
2 - South	1 - A249 onslip (SB)			743				733				
	2 - B2005 - link	634	158	80	1875	0.338	635	662	0.7	0.5	2.903	A
	3 - A249 offslip (SB)	333	83	715	1242	0.268	334	0	0.6	0.4	3.966	A
	4 - Swale Way	943	236	463	1172	0.804	1166	586	194.5	138.6	514.936	F
	5 - Grovehurst Road	402	101	1071	735	0.547	404	558	1.7	1.2	10.946	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.27	0.55	1.18	1.65	1.85			N/A	N/A
	2 - Grovehurst Road	0.19	0.00	0.00	0.19	0.19			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.50	0.00	0.00	0.50	0.50			N/A	N/A
	3 - A249 offslip (SB)	0.36	0.00	0.00	0.36	0.36			N/A	N/A
	4 - Swale Way	3.73	0.03	0.35	8.10	20.19			N/A	N/A
	5 - Grovehurst Road	0.80	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.49	0.06	0.92	6.61	10.03			N/A	N/A
	2 - Grovehurst Road	0.28	0.00	0.00	0.28	0.28			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.64	0.20	0.93	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.66	0.10	0.83	1.37	1.44			N/A	N/A
	3 - A249 offslip (SB)	0.54	0.06	0.66	1.33	1.42			N/A	N/A
	4 - Swale Way	18.03	0.39	10.22	44.42	60.17			N/A	N/A
	5 - Grovehurst Road	1.48	0.09	1.11	2.94	3.96			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	8.33	0.07	1.24	24.08	38.23			N/A	N/A
	2 - Grovehurst Road	0.45	0.03	0.25	0.46	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.74	0.03	0.25	0.74	0.74			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.94	0.03	0.25	0.94	0.94			N/A	N/A
	3 - A249 offslip (SB)	0.99	0.03	0.26	0.99	0.99			N/A	N/A
	4 - Swale Way	103.34	58.14	99.83	143.51	157.81			N/A	N/A
	5 - Grovehurst Road	2.55	0.03	0.30	2.94	11.99			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	9.74	0.05	0.47	27.47	51.49			N/A	N/A
	2 - Grovehurst Road	0.46	0.03	0.32	1.41	1.82			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.74	0.03	0.27	0.74	1.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.97	0.03	0.27	0.97	1.19			N/A	N/A
	3 - A249 offslip (SB)	1.02	0.03	0.28	1.02	3.61			N/A	N/A
	4 - Swale Way	189.55	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.61	0.03	0.28	2.61	6.62			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.90	0.04	0.42	7.97	14.56			N/A	N/A
	2 - Grovehurst Road	0.30	0.00	0.00	0.30	0.30			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.68	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.71	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.57	0.09	0.79	1.36	1.43			N/A	N/A
	4 - Swale Way	194.45	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.73	0.06	0.78	4.30	6.41			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.53	0.03	0.31	2.76	7.90			N/A	N/A
	2 - Grovehurst Road	0.21	0.00	0.00	0.21	0.21			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.63	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.37	0.03	0.28	0.66	1.08			N/A	N/A
	4 - Swale Way	138.59	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.24	0.05	0.47	2.99	4.69			N/A	N/A

# 2031 + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	201.95	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	433.44	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D21	2031 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1084	100.000
	2 - Grovehurst Road		ONE HOUR	✓	737	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	619	100.000
	4 - Swale Way		ONE HOUR	✓	753	100.000
	5 - Grovehurst Road		ONE HOUR	✓	774	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	123	0	961
		2 - Grovehurst Road	0	0	38	699
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	159	402	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	419	0	0	1008	231
		3 - A249 offslip (SB)	1	22	0	380	216
		4 - Swale Way	447	228	0	0	78
		5 - Grovehurst Road	289	313	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	2	0	15
		2 - Grovehurst Road	0	0	5	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	5	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	15	5
		3 - A249 offslip (SB)	0	5	0	9	3
		4 - Swale Way	34	9	0	0	9
		5 - Grovehurst Road	1	1	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.05	115.95	40.9	101.5	F	995	1492
	2 - Grovehurst Road	1.28	491.95	95.5	138.9	F	676	1014
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.31	3.09	0.4	1.9	A	496	744
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.83	11.30	4.9	21.4	B	1503	2254
	3 - A249 offslip (SB)	1.82	1961.28	232.1	187.4	F	568	852
	4 - Swale Way	0.96	63.51	13.9	61.7	F	691	1036
	5 - Grovehurst Road	1.35	553.51	114.8	166.8	F	710	1065

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	816	204	416	1219	0.669	808	0	0.0	2.0	8.605	A
	2 - Grovehurst Road	555	139	1015	919	0.604	549	210	0.0	1.5	9.581	A
	3 - A249 onslip (NB)			1237				327				
	4 - B2005 - link	418	104	0	1685	0.248	416	1237	0.0	0.3	2.835	A
2 - South	1 - A249 onslip (SB)			547				859				
	2 - B2005 - link	1234	308	128	1935	0.638	1227	419	0.0	1.7	5.039	A
	3 - A249 offslip (SB)	466	117	1355	712	0.655	459	0	0.0	1.8	13.850	B
	4 - Swale Way	567	142	658	928	0.611	561	1155	0.0	1.5	9.660	A
	5 - Grovehurst Road	583	146	830	897	0.649	576	389	0.0	1.8	10.964	B

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	974	244	491	1161	0.839	964	0	2.0	4.7	17.350	C
	2 - Grovehurst Road	663	166	1207	767	0.864	648	249	1.5	5.2	27.422	D
	3 - A249 onslip (NB)			1469				386				
	4 - B2005 - link	492	123	0	1685	0.292	491	1469	0.3	0.4	3.016	A
2 - South	1 - A249 onslip (SB)			643				1020				
	2 - B2005 - link	1465	366	150	1921	0.763	1460	493	1.7	3.1	7.715	A
	3 - A249 offslip (SB)	556	139	1610	493	1.129	476	0	1.8	21.9	112.604	F
	4 - Swale Way	677	169	756	870	0.778	670	1330	1.5	3.2	17.420	C
	5 - Grovehurst Road	696	174	987	769	0.905	676	439	1.8	6.7	33.370	D

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1194	298	516	1142	1.045	1110	0	4.7	25.4	61.328	F
	2 - Grovehurst Road	811	203	1354	648	1.252	642	272	5.2	47.6	163.846	F
	3 - A249 onslip (NB)			1593				403				
	4 - B2005 - link	516	129	0	1685	0.306	516	1593	0.4	0.4	3.079	A
2 - South	1 - A249 onslip (SB)			658				1117				
	2 - B2005 - link	1596	399	143	1925	0.829	1590	515	3.1	4.6	10.545	B
	3 - A249 offslip (SB)	682	170	1733	386	1.764	386	0	21.9	95.8	572.700	F
	4 - Swale Way	829	207	773	861	0.963	798	1347	3.2	10.9	43.937	E
	5 - Grovehurst Road	852	213	1132	647	1.317	643	439	6.7	59.1	199.862	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1194	298	516	1142	1.045	1132	0	25.4	40.9	115.949	F
	2 - Grovehurst Road	811	203	1373	633	1.283	632	275	47.6	92.4	406.105	F
	3 - A249 onslip (NB)			1603				403				
	4 - B2005 - link	516	129	0	1685	0.306	516	1603	0.4	0.4	3.079	A
2 - South	1 - A249 onslip (SB)			655				1127				
	2 - B2005 - link	1607	402	140	1927	0.834	1606	515	4.6	4.8	11.140	B
	3 - A249 offslip (SB)	682	170	1746	375	1.817	375	0	95.8	172.5	1300.581	F
	4 - Swale Way	829	207	775	860	0.964	817	1347	10.9	13.9	63.506	F
	5 - Grovehurst Road	852	213	1152	630	1.354	629	439	59.1	114.8	486.874	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	974	244	514	1144	0.852	1106	0	40.9	8.0	82.444	F
	2 - Grovehurst Road	663	166	1349	652	1.016	650	271	92.4	95.5	491.951	F
	3 - A249 onslip (NB)			1598				402				
	4 - B2005 - link	514	128	0	1685	0.305	514	1598	0.4	0.4	3.074	A
2 - South	1 - A249 onslip (SB)			671				1093				



2 - South	2 - B2005 - link	1600	400	157	1917	0.835	1600	515	4.8	4.9	11.301	B
	3 - A249 offslip (SB)	556	139	1756	367	1.515	367	0	172.5	219.8	1811.455	F
	4 - Swale Way	677	169	769	863	0.784	716	1354	13.9	4.0	29.261	D
	5 - Grovehurst Road	696	174	1060	711	0.979	704	425	114.8	112.6	553.514	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	816	204	519	1140	0.716	837	0	8.0	2.6	12.684	B
	2 - Grovehurst Road	555	139	1114	843	0.658	834	242	95.5	25.6	265.216	F
	3 - A249 onslip (NB)			1534				415				
	4 - B2005 - link	519	130	0	1685	0.308	519	1534	0.4	0.4	3.087	A
2 - South	1 - A249 onslip (SB)			708				1035				
	2 - B2005 - link	1513	378	184	1900	0.796	1516	524	4.9	4.1	9.475	A
	3 - A249 offslip (SB)	466	117	1700	417	1.118	417	0	219.8	232.1	1961.282	F
	4 - Swale Way	567	142	755	871	0.651	575	1362	4.0	1.9	12.498	B
	5 - Grovehurst Road	583	146	914	836	0.697	828	416	112.6	51.2	358.781	F

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.97	0.22	1.13	3.53	4.46			N/A	N/A
	2 - Grovehurst Road	1.48	0.04	0.43	3.87	6.41			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.73	0.64	1.26	1.96	2.36			N/A	N/A
	3 - A249 offslip (SB)	1.81	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	1.53	0.55	1.42	1.97	2.49			N/A	N/A
	5 - Grovehurst Road	1.79	0.04	0.37	4.61	9.01			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.68	0.08	1.27	12.61	18.65			N/A	N/A
	2 - Grovehurst Road	5.16	0.08	1.18	14.24	21.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.41	0.00	0.00	0.41	0.41			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	3.11	0.06	1.00	8.47	13.01			N/A	N/A
	3 - A249 offslip (SB)	21.91	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	3.23	0.08	1.42	8.34	12.13			N/A	N/A
	5 - Grovehurst Road	6.75	0.09	1.83	18.65	27.84			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	25.43	2.78	19.86	51.75	64.48			N/A	N/A
	2 - Grovehurst Road	47.58	21.96	44.87	70.99	79.88			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.44	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.57	0.03	0.31	4.65	20.81			N/A	N/A
	3 - A249 offslip (SB)	95.82	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	10.90	0.14	4.34	29.16	41.79			N/A	N/A
	5 - Grovehurst Road	59.06	30.29	56.39	84.81	94.28			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	40.91	5.43	32.82	82.01	101.46			N/A	N/A
	2 - Grovehurst Road	92.42	53.41	89.47	126.76	138.94			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.44	0.03	0.30	1.21	1.94			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.82	0.03	0.28	4.82	7.81			N/A	N/A
	3 - A249 offslip (SB)	172.46	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	13.89	0.09	3.08	40.02	61.72			N/A	N/A
	5 - Grovehurst Road	114.79	72.73	112.08	151.11	163.65			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	7.96	0.07	1.09	23.02	36.70			N/A	N/A
	2 - Grovehurst Road	95.47	58.64	92.91	127.37	138.50			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.44	0.00	0.00	0.44	0.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.90	0.07	1.30	13.78	21.44			N/A	N/A
	3 - A249 offslip (SB)	219.78	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	4.01	0.04	0.44	11.25	20.41			N/A	N/A
	5 - Grovehurst Road	112.64	66.99	109.40	152.73	166.80			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.63	0.03	0.31	3.86	13.16			N/A	N/A
	2 - Grovehurst Road	25.56	5.86	22.01	45.87	54.76			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.44	0.00	0.00	0.44	0.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.07	0.13	1.85	9.81	13.53			N/A	N/A
	3 - A249 offslip (SB)	232.07	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	1.93	0.03	0.32	3.43	10.00			N/A	N/A
	5 - Grovehurst Road	51.25	24.23	48.48	75.81	85.04			N/A	N/A

# 2031 + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	281.15	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	667.17	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D22	2031 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1178	100.000
	2 - Grovehurst Road		ONE HOUR	✓	389	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	528	100.000
	4 - Swale Way		ONE HOUR	✓	1350	100.000
	5 - Grovehurst Road		ONE HOUR	✓	613	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From				
	1 - A249 offslip (NB)	0	430	0	748
	2 - Grovehurst Road	0	0	34	355
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	277	559	0

### Demand (Veh/hr)

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
2 - South	From					
	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	187	0	0	509	402
	3 - A249 offslip (SB)	1	39	0	201	287
	4 - Swale Way	755	434	0	0	161
	5 - Grovehurst Road	150	356	0	107	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From				
	1 - A249 offslip (NB)	0	0	0	18
	2 - Grovehurst Road	0	0	0	0
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0

### Heavy Vehicle Percentages

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
2 - South	From					
	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	1	0	0	25	1
	3 - A249 offslip (SB)	0	8	0	8	3
	4 - Swale Way	16	2	0	0	3
	5 - Grovehurst Road	0	1	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.27	516.87	153.1	200.0	F	1081	1621
	2 - Grovehurst Road	0.50	8.49	1.0	2.5	A	357	535
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.41	3.55	0.7	1.5	A	659	988
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.54	4.14	1.2	1.9	A	967	1451
	3 - A249 offslip (SB)	0.66	11.91	1.9	5.0	B	485	727
	4 - Swale Way	1.70	1709.09	466.5	181.9	F	1239	1858
	5 - Grovehurst Road	0.83	25.14	4.5	23.0	D	562	844

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	887	222	600	1110	0.799	872	0	0.0	3.7	14.384	B
	2 - Grovehurst Road	293	73	955	990	0.296	291	517	0.0	0.4	5.140	A
	3 - A249 onslip (NB)			820				427				
	4 - B2005 - link	602	150	0	1730	0.348	600	820	0.0	0.5	3.181	A
2 - South	1 - A249 onslip (SB)			682				789				
	2 - B2005 - link	820	205	80	1925	0.426	817	603	0.0	0.7	3.242	A
	3 - A249 offslip (SB)	398	99	896	1106	0.360	395	0	0.0	0.6	5.053	A
	4 - Swale Way	1016	254	683	1029	0.987	961	609	0.0	14.0	38.581	E
	5 - Grovehurst Road	461	115	1015	794	0.582	456	628	0.0	1.4	10.506	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1059	265	655	1067	0.992	1013	0	3.7	15.3	45.623	E
	2 - Grovehurst Road	350	87	1081	886	0.395	349	587	0.4	0.6	6.686	A
	3 - A249 onslip (NB)			961				468				
	4 - B2005 - link	655	164	0	1730	0.379	655	961	0.5	0.6	3.349	A
2 - South	1 - A249 onslip (SB)			752				826				
	2 - B2005 - link	961	240	96	1915	0.502	960	656	0.7	1.0	3.765	A
	3 - A249 offslip (SB)	475	119	1055	965	0.492	473	0	0.6	1.0	7.293	A
	4 - Swale Way	1214	303	808	947	1.282	944	720	14.0	81.3	195.941	F
	5 - Grovehurst Road	551	138	1031	783	0.704	547	721	1.4	2.3	15.035	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1297	324	711	1025	1.266	1022	0	15.3	84.1	185.456	F
	2 - Grovehurst Road	428	107	1124	854	0.502	427	608	0.6	1.0	8.408	A
	3 - A249 onslip (NB)			1038				513				
	4 - B2005 - link	711	178	0	1730	0.411	711	1038	0.6	0.7	3.532	A
2 - South	1 - A249 onslip (SB)			829				831				
	2 - B2005 - link	1030	258	116	1902	0.542	1030	712	1.0	1.2	4.122	A
	3 - A249 offslip (SB)	581	145	1146	885	0.657	578	0	1.0	1.8	11.575	B
	4 - Swale Way	1486	372	910	879	1.692	878	814	81.3	233.3	652.058	F
	5 - Grovehurst Road	675	169	993	814	0.829	667	796	2.3	4.3	23.244	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1297	324	715	1021	1.270	1021	0	84.1	153.0	419.681	F
	2 - Grovehurst Road	428	107	1126	852	0.503	428	610	1.0	1.0	8.491	A
	3 - A249 onslip (NB)			1039				515				
	4 - B2005 - link	715	179	0	1730	0.413	715	1039	0.7	0.7	3.545	A
2 - South	1 - A249 onslip (SB)			834				832				
	2 - B2005 - link	1031	258	118	1901	0.542	1031	716	1.2	1.2	4.135	A
	3 - A249 offslip (SB)	581	145	1149	883	0.658	581	0	1.8	1.9	11.907	B
	4 - Swale Way	1486	372	913	877	1.695	877	817	233.3	385.7	1276.509	F
	5 - Grovehurst Road	675	169	992	815	0.828	674	798	4.3	4.5	25.144	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1059	265	659	1064	0.995	1059	0	153.0	153.1	516.868	F
	2 - Grovehurst Road	350	87	1113	859	0.407	351	605	1.0	0.7	7.096	A
	3 - A249 onslip (NB)			992				471				
	4 - B2005 - link	659	165	0	1730	0.381	659	992	0.7	0.6	3.365	A
2 - South	1 - A249 onslip (SB)			758				829				

2 - South	2 - B2005 - link	993	248	98	1914	0.519	993	660	1.2	1.1	3.915	A
	3 - A249 offslip (SB)	475	119	1091	933	0.509	478	0	1.9	1.1	7.968	A
	4 - Swale Way	1214	303	829	933	1.301	933	740	385.7	455.9	1598.075	F
	5 - Grovehurst Road	551	138	1027	787	0.701	559	735	4.5	2.5	16.360	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	887	222	612	1100	0.806	1093	0	153.1	101.5	420.448	F
	2 - Grovehurst Road	293	73	1103	864	0.339	294	602	0.7	0.5	6.316	A
	3 - A249 onslip (NB)			962				435				
	4 - B2005 - link	612	153	0	1730	0.354	612	962	0.6	0.6	3.223	A
2 - South	1 - A249 onslip (SB)			694				824				
	2 - B2005 - link	969	242	81	1924	0.504	970	613	1.1	1.0	3.774	A
	3 - A249 offslip (SB)	398	99	1051	968	0.411	399	0	1.1	0.7	6.341	A
	4 - Swale Way	1016	254	767	974	1.043	974	683	455.9	466.5	1709.085	F
	5 - Grovehurst Road	461	115	1053	766	0.603	465	688	2.5	1.6	12.122	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.67	0.04	0.40	9.91	19.24			N/A	N/A
	2 - Grovehurst Road	0.42	0.00	0.00	0.42	0.42			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.74	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.56	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	13.95	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.35	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	15.27	0.36	8.67	37.39	50.56			N/A	N/A
	2 - Grovehurst Road	0.64	0.13	0.89	1.38	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.00	0.11	0.96	1.56	1.88			N/A	N/A
	3 - A249 offslip (SB)	0.95	0.08	0.87	1.61	1.96			N/A	N/A
	4 - Swale Way	81.33	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.25	0.09	1.33	5.24	7.31			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	84.06	43.94	80.59	120.28	133.50			N/A	N/A
	2 - Grovehurst Road	0.99	0.03	0.26	0.99	0.99			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.69	0.03	0.25	0.69	0.69			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.17	0.03	0.26	1.17	1.17			N/A	N/A
	3 - A249 offslip (SB)	1.85	0.03	0.28	1.85	5.02			N/A	N/A
	4 - Swale Way	233.31	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.26	0.04	0.38	10.67	22.98			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	153.03	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.00	0.03	0.27	1.00	2.50			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.70	0.03	0.27	0.70	1.41			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.18	0.03	0.26	1.18	1.18			N/A	N/A
	3 - A249 offslip (SB)	1.89	0.03	0.28	1.89	3.94			N/A	N/A
	4 - Swale Way	385.73	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.50	0.03	0.31	5.19	21.21			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	153.12	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.69	0.14	0.89	1.38	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.62	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.09	0.55	1.04	1.38	1.38			N/A	N/A
	3 - A249 offslip (SB)	1.05	0.08	0.91	1.84	2.47			N/A	N/A
	4 - Swale Way	455.93	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.46	0.04	0.44	6.79	11.67			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	101.54	43.66	95.45	156.59	177.64			N/A	N/A
	2 - Grovehurst Road	0.52	0.05	0.49	1.30	1.40			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.55	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.02	0.55	1.02	1.43	1.49			N/A	N/A
	3 - A249 offslip (SB)	0.71	0.05	0.47	1.32	1.87			N/A	N/A
	4 - Swale Way	466.51	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.56	0.04	0.37	3.97	7.74			N/A	N/A

# 2031 + K3 Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	16.99	C
2	South	Standard Roundabout	1, 2, 3, 4, 5	62.82	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D23	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	863	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	692	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000



## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	821
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	147	327	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	141	0	0	910	183
		3 - A249 offslip (SB)	1	18	0	377	174
		4 - Swale Way	389	226	0	0	77
		5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	7	0	18
		2 - Grovehurst Road	0	0	8	3
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	7	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	16	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	39	10	0	0	9
		5 - Grovehurst Road	1	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.87	23.76	5.9	30.3	C	792	1188
	2 - Grovehurst Road	0.70	17.26	2.2	9.1	C	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.31	3.15	0.5	1.9	A	437	655
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.74	7.38	2.7	5.4	A	1136	1704
	3 - A249 offslip (SB)	1.22	297.32	58.1	98.0	F	523	785
	4 - Swale Way	0.78	16.39	3.4	16.3	C	635	952
	5 - Grovehurst Road	0.81	21.80	3.9	19.5	C	561	841

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	650	162	355	1221	0.532	645	0	0.0	1.1	6.209	A
	2 - Grovehurst Road	331	83	859	1014	0.327	329	142	0.0	0.5	5.240	A
	3 - A249 onslip (NB)			924				264				
	4 - B2005 - link	356	89	0	1664	0.214	355	924	0.0	0.3	2.748	A
2 - South	1 - A249 onslip (SB)			485				551				
	2 - B2005 - link	927	232	129	1885	0.492	923	357	0.0	1.0	3.725	A
	3 - A249 offslip (SB)	429	107	1051	947	0.453	426	0	0.0	0.8	6.860	A
	4 - Swale Way	521	130	386	1064	0.490	517	1091	0.0	0.9	6.540	A
	5 - Grovehurst Road	460	115	579	1066	0.432	457	324	0.0	0.8	5.884	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	776	194	426	1167	0.665	773	0	1.1	1.9	9.064	A
	2 - Grovehurst Road	396	99	1029	878	0.451	394	170	0.5	0.8	7.427	A
	3 - A249 onslip (NB)			1107				316				
	4 - B2005 - link	427	107	0	1664	0.256	426	1107	0.3	0.3	2.909	A
2 - South	1 - A249 onslip (SB)			581				660				
	2 - B2005 - link	1109	277	154	1870	0.593	1108	427	1.0	1.4	4.711	A
	3 - A249 offslip (SB)	512	128	1262	764	0.670	508	0	0.8	1.9	13.805	B
	4 - Swale Way	622	156	463	1019	0.610	620	1307	0.9	1.5	8.956	A
	5 - Grovehurst Road	549	137	694	967	0.568	547	388	0.8	1.3	8.520	A

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	950	238	515	1099	0.864	936	0	1.9	5.5	20.466	C
	2 - Grovehurst Road	484	121	1246	704	0.689	479	205	0.8	2.1	15.710	C
	3 - A249 onslip (NB)			1343				383				
	4 - B2005 - link	515	129	0	1664	0.310	515	1343	0.3	0.4	3.134	A
2 - South	1 - A249 onslip (SB)			703				802				
	2 - B2005 - link	1346	336	187	1850	0.728	1341	516	1.4	2.6	7.014	A
	3 - A249 offslip (SB)	628	157	1528	532	1.179	519	0	1.9	29.1	125.696	F
	4 - Swale Way	762	190	528	981	0.777	755	1519	1.5	3.2	15.465	C
	5 - Grovehurst Road	673	168	842	841	0.800	663	441	1.3	3.6	19.359	C

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	950	238	520	1095	0.867	948	0	5.5	5.9	23.756	C
	2 - Grovehurst Road	484	121	1261	691	0.701	484	208	2.1	2.2	17.261	C
	3 - A249 onslip (NB)			1358				386				
	4 - B2005 - link	520	130	0	1664	0.313	520	1358	0.4	0.5	3.148	A
2 - South	1 - A249 onslip (SB)			710				811				
	2 - B2005 - link	1362	340	189	1848	0.737	1361	521	2.6	2.7	7.378	A
	3 - A249 offslip (SB)	628	157	1550	513	1.224	511	0	29.1	58.1	297.316	F
	4 - Swale Way	762	190	531	980	0.778	761	1531	3.2	3.4	16.394	C
	5 - Grovehurst Road	673	168	849	834	0.806	672	443	3.6	3.9	21.800	C

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	776	194	441	1156	0.671	791	0	5.9	2.1	10.269	B
	2 - Grovehurst Road	396	99	1057	856	0.462	401	175	2.2	0.9	8.015	A
	3 - A249 onslip (NB)			1131				327				
	4 - B2005 - link	441	110	0	1664	0.265	441	1131	0.5	0.4	2.947	A
	1 - A249 onslip (SB)			599				673				

2 - South	2 - B2005 - link	1134	283	157	1868	0.607	1139	441	2.7	1.6	4.971	A
	3 - A249 offslip (SB)	512	128	1296	734	0.698	722	0	58.1	5.8	166.829	F
	4 - Swale Way	622	156	543	972	0.640	628	1474	3.4	1.8	10.655	B
	5 - Grovehurst Road	549	137	712	953	0.576	559	459	3.9	1.4	9.363	A

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	650	162	362	1216	0.535	653	0	2.1	1.2	6.448	A
	2 - Grovehurst Road	331	83	871	1005	0.330	333	144	0.9	0.5	5.372	A
	3 - A249 onslip (NB)			936				268				
	4 - B2005 - link	361	90	0	1664	0.217	362	936	0.4	0.3	2.767	A
2 - South	1 - A249 onslip (SB)			492				559				
	2 - B2005 - link	938	234	130	1884	0.498	940	362	1.6	1.0	3.821	A
	3 - A249 offslip (SB)	429	107	1070	931	0.461	449	0	5.8	0.9	7.762	A
	4 - Swale Way	521	130	399	1057	0.493	524	1120	1.8	1.0	6.805	A
	5 - Grovehurst Road	460	115	588	1058	0.435	462	335	1.4	0.8	6.065	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.12	0.55	1.03	1.45	1.50			N/A	N/A
	2 - Grovehurst Road	0.48	0.00	0.00	0.48	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.96	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.82	0.05	0.57	1.57	2.05			N/A	N/A
	4 - Swale Way	0.95	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	0.75	0.55	1.00	1.40	1.45			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.93	0.05	0.63	5.00	7.77			N/A	N/A
	2 - Grovehurst Road	0.81	0.06	0.73	1.30	1.76			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.44	0.05	0.56	3.57	5.40			N/A	N/A
	3 - A249 offslip (SB)	1.95	0.04	0.39	5.16	9.63			N/A	N/A
	4 - Swale Way	1.53	0.06	0.89	3.54	5.02			N/A	N/A
	5 - Grovehurst Road	1.29	0.06	0.67	2.94	4.36			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	5.45	0.04	0.40	14.31	29.48			N/A	N/A
	2 - Grovehurst Road	2.10	0.03	0.29	2.10	8.75			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.60	0.03	0.27	2.60	4.75			N/A	N/A
	3 - A249 offslip (SB)	29.07	9.69	26.29	47.70	55.33			N/A	N/A
	4 - Swale Way	3.23	0.03	0.32	4.84	16.28			N/A	N/A
	5 - Grovehurst Road	3.62	0.03	0.34	7.70	19.53			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	5.94	0.03	0.33	9.21	30.30			N/A	N/A
	2 - Grovehurst Road	2.25	0.03	0.29	2.25	9.13			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.31	1.38	1.88			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.74	0.03	0.27	2.74	2.74			N/A	N/A
	3 - A249 offslip (SB)	58.12	26.67	54.86	87.08	98.02			N/A	N/A
	4 - Swale Way	3.36	0.03	0.29	3.36	10.80			N/A	N/A
	5 - Grovehurst Road	3.89	0.03	0.30	4.07	17.89			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.11	0.04	0.44	5.75	9.73			N/A	N/A
	2 - Grovehurst Road	0.87	0.06	0.67	1.65	2.18			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.57	0.10	1.19	3.05	4.08			N/A	N/A
	3 - A249 offslip (SB)	5.77	0.08	1.34	16.01	24.21			N/A	N/A
	4 - Swale Way	1.83	0.06	0.90	4.52	6.63			N/A	N/A
	5 - Grovehurst Road	1.39	0.05	0.47	3.53	5.54			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.17	0.03	0.32	2.42	5.92			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.35	1.44	1.67			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.00	0.05	0.50	2.17	3.22			N/A	N/A
	3 - A249 offslip (SB)	0.87	0.03	0.26	0.87	0.87			N/A	N/A
	4 - Swale Way	0.99	0.04	0.36	2.45	4.49			N/A	N/A
	5 - Grovehurst Road	0.78	0.03	0.33	1.74	3.70			N/A	N/A

# 2031 + K3 Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	28.34	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	307.99	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D24	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	828	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	443	100.000
	4 - Swale Way		ONE HOUR	✓	1278	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	648
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	262	522	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	42	0	0	480	322
		3 - A249 offslip (SB)	1	27	0	199	216
		4 - Swale Way	687	432	0	0	159
	5 - Grovehurst Road	110	318	0	106	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	1	0	22
		2 - Grovehurst Road	0	0	0	1
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	4	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	28	1
		3 - A249 offslip (SB)	0	11	0	8	4
		4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.95	52.49	12.5	60.4	F	760	1140
	2 - Grovehurst Road	0.33	6.94	0.5	1.9	A	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.42	3.62	0.7	1.5	A	672	1008
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.51	3.99	1.0	1.5	A	781	1172
	3 - A249 offslip (SB)	0.52	8.08	1.1	3.7	A	407	610
	4 - Swale Way	1.38	729.47	232.1	232.1	F	1173	1759
	5 - Grovehurst Road	0.73	16.62	2.6	12.4	C	490	735

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	623	156	576	1068	0.584	618	0	0.0	1.4	7.913	A
	2 - Grovehurst Road	171	43	867	1037	0.165	170	327	0.0	0.2	4.150	A
	3 - A249 onslip (NB)			633				404				
	4 - B2005 - link	578	145	0	1719	0.336	576	633	0.0	0.5	3.145	A
2 - South	1 - A249 onslip (SB)			656				622				
	2 - B2005 - link	637	159	79	1854	0.343	635	577	0.0	0.5	2.947	A
	3 - A249 offslip (SB)	334	83	714	1236	0.270	332	0	0.0	0.4	3.976	A
	4 - Swale Way	962	241	457	1160	0.830	945	589	0.0	4.4	15.651	C
	5 - Grovehurst Road	402	101	880	874	0.460	399	522	0.0	0.8	7.526	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	744	186	670	998	0.746	739	0	1.4	2.8	13.576	B
	2 - Grovehurst Road	204	51	1025	907	0.225	204	385	0.2	0.3	5.113	A
	3 - A249 onslip (NB)			758				471				
	4 - B2005 - link	671	168	0	1719	0.390	670	758	0.5	0.6	3.432	A
2 - South	1 - A249 onslip (SB)			764				711				
	2 - B2005 - link	762	190	95	1845	0.413	761	670	0.5	0.7	3.320	A
	3 - A249 offslip (SB)	398	100	856	1107	0.360	397	0	0.4	0.6	5.067	A
	4 - Swale Way	1149	287	547	1100	1.044	1068	706	4.4	24.5	61.693	F
	5 - Grovehurst Road	480	120	999	780	0.615	477	617	0.8	1.5	11.763	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	912	228	724	959	0.951	882	0	2.8	10.2	37.316	E
	2 - Grovehurst Road	250	62	1173	783	0.319	249	434	0.3	0.5	6.740	A
	3 - A249 onslip (NB)			910				512				
	4 - B2005 - link	725	181	0	1719	0.422	724	910	0.6	0.7	3.621	A
2 - South	1 - A249 onslip (SB)			839				717				
	2 - B2005 - link	914	228	116	1832	0.499	913	724	0.7	1.0	3.910	A
	3 - A249 offslip (SB)	488	122	1029	950	0.513	486	0	0.6	1.0	7.719	A
	4 - Swale Way	1407	352	661	1026	1.372	1024	853	24.5	120.2	263.340	F
	5 - Grovehurst Road	588	147	973	801	0.734	584	713	1.5	2.6	16.237	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	912	228	726	958	0.952	902	0	10.2	12.5	52.492	F
	2 - Grovehurst Road	250	62	1189	768	0.325	250	439	0.5	0.5	6.944	A
	3 - A249 onslip (NB)			926				513				
	4 - B2005 - link	726	181	0	1719	0.422	726	926	0.7	0.7	3.624	A
2 - South	1 - A249 onslip (SB)			841				717				
	2 - B2005 - link	931	233	117	1832	0.508	931	724	1.0	1.0	3.994	A
	3 - A249 offslip (SB)	488	122	1048	933	0.523	488	0	1.0	1.1	8.077	A
	4 - Swale Way	1407	352	670	1020	1.380	1020	865	120.2	217.0	585.989	F
	5 - Grovehurst Road	588	147	970	804	0.732	588	720	2.6	2.6	16.615	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	744	186	682	990	0.752	781	0	12.5	3.2	19.871	C
	2 - Grovehurst Road	204	51	1066	873	0.234	205	398	0.5	0.3	5.396	A
	3 - A249 onslip (NB)			792				478				
	4 - B2005 - link	682	170	0	1719	0.397	682	792	0.7	0.7	3.475	A
	1 - A249 onslip (SB)			776				725				

2 - South	2 - B2005 - link	797	199	96	1844	0.432	799	680	1.0	0.8	3.448	A
	3 - A249 offslip (SB)	398	100	895	1072	0.372	400	0	1.1	0.6	5.378	A
	4 - Swale Way	1149	287	565	1089	1.055	1089	730	217.0	232.1	729.470	F
	5 - Grovehurst Road	480	120	1018	765	0.628	484	635	2.6	1.7	12.961	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	623	156	651	1012	0.616	630	0	3.2	1.6	9.558	A
	2 - Grovehurst Road	171	43	927	991	0.172	171	355	0.3	0.2	4.391	A
	3 - A249 onslip (NB)			644				454				
	4 - B2005 - link	651	163	0	1719	0.379	651	644	0.7	0.6	3.372	A
2 - South	1 - A249 onslip (SB)			730				735				
	2 - B2005 - link	647	162	80	1853	0.349	648	650	0.8	0.5	2.991	A
	3 - A249 offslip (SB)	334	83	729	1223	0.273	334	0	0.6	0.4	4.058	A
	4 - Swale Way	962	241	464	1155	0.833	1150	599	232.1	185.1	653.303	F
	5 - Grovehurst Road	402	101	1061	731	0.550	404	554	1.7	1.3	11.078	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.37	0.54	1.28	1.81	1.97			N/A	N/A
	2 - Grovehurst Road	0.20	0.00	0.00	0.20	0.20			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	4 - Swale Way	4.39	0.03	0.31	5.67	21.27			N/A	N/A
	5 - Grovehurst Road	0.84	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.77	0.06	1.02	7.39	11.19			N/A	N/A
	2 - Grovehurst Road	0.29	0.00	0.00	0.29	0.29			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.64	0.21	0.93	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.70	0.10	0.84	1.38	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.56	0.07	0.70	1.34	1.42			N/A	N/A
	4 - Swale Way	24.49	0.66	14.74	59.30	79.46			N/A	N/A
	5 - Grovehurst Road	1.55	0.09	1.15	3.09	4.19			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.18	0.10	3.06	28.29	41.99			N/A	N/A
	2 - Grovehurst Road	0.46	0.03	0.25	0.46	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.25	0.72	0.72			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.99	0.03	0.26	0.99	0.99			N/A	N/A
	3 - A249 offslip (SB)	1.04	0.03	0.26	1.04	1.04			N/A	N/A
	4 - Swale Way	120.16	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.59	0.03	0.31	3.16	12.36			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker



1 - North	1 - A249 offslip (NB)	12.51	0.07	1.37	36.77	60.43			N/A	N/A
	2 - Grovehurst Road	0.48	0.03	0.32	1.44	1.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.73	0.03	0.27	0.73	1.02			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.03	0.03	0.27	1.03	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.08	0.03	0.28	1.08	3.73			N/A	N/A
	4 - Swale Way	217.01	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.65	0.03	0.28	2.65	6.79			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.24	0.04	0.41	8.86	16.52			N/A	N/A
	2 - Grovehurst Road	0.31	0.00	0.00	0.31	0.31			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.66	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.77	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.60	0.10	0.83	1.37	1.43			N/A	N/A
	4 - Swale Way	232.07	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.74	0.05	0.69	4.42	6.68			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.64	0.03	0.31	2.59	8.29			N/A	N/A
	2 - Grovehurst Road	0.21	0.00	0.00	0.21	0.21			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.54	0.54	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.38	0.03	0.30	0.90	1.20			N/A	N/A
	4 - Swale Way	185.05	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.25	0.05	0.46	3.08	4.87			N/A	N/A

# 2031 + K3 and WKN Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	18.71	C
2	South	Standard Roundabout	1, 2, 3, 4, 5	69.14	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D27	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	871	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	701	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	829
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	147	327	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	141	0	0	918	183
		3 - A249 offslip (SB)	1	18	0	377	174
		4 - Swale Way	398	226	0	0	77
		5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	7	0	19
		2 - Grovehurst Road	0	0	8	3
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	7	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	17	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	41	10	0	0	9
		5 - Grovehurst Road	1	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.88	26.48	6.6	35.7	D	799	1199
	2 - Grovehurst Road	0.71	18.37	2.4	10.1	C	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.31	3.15	0.5	1.9	A	437	655
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.75	7.68	2.9	5.7	A	1143	1714
	3 - A249 offslip (SB)	1.26	332.25	64.5	104.3	F	523	785
	4 - Swale Way	0.79	17.73	3.7	18.5	C	643	965
	5 - Grovehurst Road	0.82	23.88	4.2	21.1	C	561	841

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	656	164	355	1211	0.542	651	0	0.0	1.2	6.382	A
	2 - Grovehurst Road	331	83	865	1005	0.330	329	142	0.0	0.5	5.311	A
	3 - A249 onslip (NB)			930				264				
	4 - B2005 - link	356	89	0	1664	0.214	355	930	0.0	0.3	2.748	A
2 - South	1 - A249 onslip (SB)			485				558				
	2 - B2005 - link	932	233	129	1872	0.498	928	357	0.0	1.0	3.797	A
	3 - A249 offslip (SB)	429	107	1057	937	0.458	426	0	0.0	0.8	6.994	A
	4 - Swale Way	528	132	386	1053	0.501	524	1096	0.0	1.0	6.750	A
	5 - Grovehurst Road	460	115	586	1055	0.436	457	324	0.0	0.8	5.986	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	783	196	426	1157	0.677	780	0	1.2	2.0	9.443	A
	2 - Grovehurst Road	396	99	1036	867	0.456	394	170	0.5	0.8	7.596	A
	3 - A249 onslip (NB)			1114				316				
	4 - B2005 - link	426	107	0	1664	0.256	426	1114	0.3	0.3	2.909	A
2 - South	1 - A249 onslip (SB)			581				668				
	2 - B2005 - link	1116	279	154	1857	0.601	1114	427	1.0	1.5	4.832	A
	3 - A249 offslip (SB)	512	128	1268	752	0.681	508	0	0.8	2.0	14.444	B
	4 - Swale Way	630	158	462	1009	0.625	628	1313	1.0	1.6	9.374	A
	5 - Grovehurst Road	549	137	702	955	0.575	547	388	0.8	1.3	8.777	A

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	959	240	514	1091	0.879	943	0	2.0	6.0	22.223	C
	2 - Grovehurst Road	484	121	1252	692	0.700	479	205	0.8	2.2	16.497	C
	3 - A249 onslip (NB)			1349				382				
	4 - B2005 - link	514	129	0	1664	0.309	514	1349	0.3	0.4	3.132	A
2 - South	1 - A249 onslip (SB)			702				811				
	2 - B2005 - link	1352	338	186	1837	0.736	1347	515	1.5	2.7	7.264	A
	3 - A249 offslip (SB)	628	157	1533	519	1.208	508	0	2.0	31.9	138.463	F
	4 - Swale Way	772	193	523	974	0.793	764	1518	1.6	3.5	16.594	C
	5 - Grovehurst Road	673	168	850	826	0.814	662	438	1.3	3.9	20.793	C

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	959	240	520	1087	0.882	956	0	6.0	6.6	26.481	D
	2 - Grovehurst Road	484	121	1269	678	0.714	484	207	2.2	2.4	18.367	C
	3 - A249 onslip (NB)			1367				386				
	4 - B2005 - link	520	130	0	1664	0.312	520	1367	0.4	0.5	3.146	A
2 - South	1 - A249 onslip (SB)			709				820				
	2 - B2005 - link	1369	342	189	1836	0.746	1368	520	2.7	2.9	7.684	A
	3 - A249 offslip (SB)	628	157	1557	498	1.260	497	0	31.9	64.5	332.249	F
	4 - Swale Way	772	193	525	973	0.793	771	1529	3.5	3.7	17.730	C
	5 - Grovehurst Road	673	168	858	819	0.821	671	438	3.9	4.2	23.880	C

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	783	196	441	1146	0.683	801	0	6.6	2.2	10.921	B
	2 - Grovehurst Road	396	99	1066	842	0.470	401	175	2.4	0.9	8.273	A
	3 - A249 onslip (NB)			1141				327				
	4 - B2005 - link	441	110	0	1664	0.265	441	1141	0.5	0.4	2.945	A
	1 - A249 onslip (SB)			599				682				

2 - South	2 - B2005 - link	1143	286	158	1855	0.616	1148	441	2.9	1.6	5.130	A
	3 - A249 offslip (SB)	512	128	1306	719	0.713	708	0	64.5	15.6	208.234	F
	4 - Swale Way	630	158	539	964	0.653	637	1474	3.7	1.9	11.217	B
	5 - Grovehurst Road	549	137	721	940	0.585	560	455	4.2	1.4	9.762	A

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	656	164	363	1205	0.544	660	0	2.2	1.2	6.656	A
	2 - Grovehurst Road	331	83	878	994	0.333	333	144	0.9	0.5	5.455	A
	3 - A249 onslip (NB)			942				269				
	4 - B2005 - link	363	91	0	1664	0.218	363	942	0.4	0.3	2.768	A
2 - South	1 - A249 onslip (SB)			493				566				
	2 - B2005 - link	944	236	130	1871	0.504	946	363	1.6	1.0	3.901	A
	3 - A249 offslip (SB)	429	107	1076	920	0.466	488	0	15.6	0.9	9.543	A
	4 - Swale Way	528	132	412	1038	0.508	531	1152	1.9	1.0	7.152	A
	5 - Grovehurst Road	460	115	597	1046	0.440	463	347	1.4	0.8	6.192	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.16	0.56	1.01	1.16	1.51			N/A	N/A
	2 - Grovehurst Road	0.49	0.00	0.00	0.49	0.49			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.98	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.83	0.05	0.49	1.70	2.43			N/A	N/A
	4 - Swale Way	0.99	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	0.76	0.55	1.00	1.40	1.45			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.03	0.05	0.64	5.35	8.29			N/A	N/A
	2 - Grovehurst Road	0.83	0.06	0.72	1.40	1.84			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.49	0.05	0.54	3.71	5.65			N/A	N/A
	3 - A249 offslip (SB)	2.04	0.04	0.39	5.41	10.14			N/A	N/A
	4 - Swale Way	1.62	0.06	0.89	3.82	5.53			N/A	N/A
	5 - Grovehurst Road	1.32	0.05	0.65	3.08	4.61			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	6.02	0.04	0.43	16.61	31.88			N/A	N/A
	2 - Grovehurst Road	2.20	0.03	0.30	2.20	9.78			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.70	0.03	0.28	2.70	5.67			N/A	N/A
	3 - A249 offslip (SB)	31.89	11.88	29.24	50.75	58.29			N/A	N/A
	4 - Swale Way	3.52	0.03	0.33	6.26	18.48			N/A	N/A
	5 - Grovehurst Road	3.90	0.04	0.36	9.07	21.10			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	6.65	0.03	0.34	12.74	35.72			N/A	N/A
	2 - Grovehurst Road	2.39	0.03	0.29	2.39	10.10			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.31	1.38	1.88			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.86	0.03	0.27	2.86	2.86			N/A	N/A
	3 - A249 offslip (SB)	64.47	32.30	61.45	93.55	104.29			N/A	N/A
	4 - Swale Way	3.67	0.03	0.29	3.67	13.24			N/A	N/A
	5 - Grovehurst Road	4.25	0.03	0.31	5.55	20.63			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.23	0.04	0.43	6.10	10.53			N/A	N/A
	2 - Grovehurst Road	0.90	0.06	0.65	1.75	2.42			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.63	0.09	1.20	3.32	4.47			N/A	N/A
	3 - A249 offslip (SB)	15.64	2.64	12.89	29.19	35.42			N/A	N/A
	4 - Swale Way	1.95	0.06	0.82	4.93	7.43			N/A	N/A
	5 - Grovehurst Road	1.44	0.05	0.45	3.71	5.92			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.21	0.03	0.32	2.37	6.21			N/A	N/A
	2 - Grovehurst Road	0.50	0.03	0.35	1.47	1.77			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.03	0.05	0.48	2.33	3.48			N/A	N/A
	3 - A249 offslip (SB)	0.89	0.03	0.26	0.89	0.89			N/A	N/A
	4 - Swale Way	1.05	0.04	0.36	2.60	4.92			N/A	N/A
	5 - Grovehurst Road	0.79	0.03	0.32	1.71	3.84			N/A	N/A

# 2031 + K3 and WKN Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	28.74	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	332.03	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D28	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	832	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	444	100.000
	4 - Swale Way		ONE HOUR	✓	1298	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	652
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	262	523	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	42	0	0	484	322
		3 - A249 offslip (SB)	1	27	0	200	216
		4 - Swale Way	706	433	0	0	159
		5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	1	0	22
		2 - Grovehurst Road	0	0	0	1
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	3	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	29	1
		3 - A249 offslip (SB)	0	11	0	8	4
		4 - Swale Way	19	3	0	0	3
		5 - Grovehurst Road	0	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.95	53.10	12.7	61.0	F	763	1145
	2 - Grovehurst Road	0.33	6.95	0.5	1.9	A	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.42	3.58	0.7	1.4	A	673	1009
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.51	4.03	1.0	1.4	A	781	1172
	3 - A249 offslip (SB)	0.53	8.17	1.1	3.7	A	407	611
	4 - Swale Way	1.40	781.13	250.8	250.8	F	1191	1787
	5 - Grovehurst Road	0.74	16.79	2.7	12.6	C	490	735



## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	626	157	580	1067	0.587	621	0	0.0	1.4	7.971	A
	2 - Grovehurst Road	171	43	873	1035	0.165	170	328	0.0	0.2	4.159	A
	3 - A249 onslip (NB)			636				407				
	4 - B2005 - link	582	146	0	1730	0.337	580	636	0.0	0.5	3.125	A
2 - South	1 - A249 onslip (SB)			656				635				
	2 - B2005 - link	637	159	79	1844	0.345	634	577	0.0	0.5	2.970	A
	3 - A249 offslip (SB)	334	84	714	1233	0.271	333	0	0.0	0.4	3.992	A
	4 - Swale Way	977	244	455	1160	0.843	958	591	0.0	4.8	16.573	C
	5 - Grovehurst Road	402	101	893	862	0.466	399	520	0.0	0.9	7.705	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	748	187	672	1000	0.748	742	0	1.4	2.8	13.657	B
	2 - Grovehurst Road	204	51	1029	907	0.225	204	385	0.2	0.3	5.119	A
	3 - A249 onslip (NB)			761				472				
	4 - B2005 - link	672	168	0	1730	0.389	672	761	0.5	0.6	3.400	A
2 - South	1 - A249 onslip (SB)			761				721				
	2 - B2005 - link	761	190	95	1835	0.415	761	667	0.5	0.7	3.349	A
	3 - A249 offslip (SB)	399	100	855	1104	0.362	398	0	0.4	0.6	5.098	A
	4 - Swale Way	1167	292	545	1101	1.060	1074	708	4.8	28.0	68.052	F
	5 - Grovehurst Road	480	120	1005	775	0.620	477	614	0.9	1.6	11.990	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	916	229	725	962	0.952	886	0	2.8	10.3	37.616	E
	2 - Grovehurst Road	250	62	1177	782	0.320	249	434	0.3	0.5	6.746	A
	3 - A249 onslip (NB)			914				513				
	4 - B2005 - link	725	181	0	1730	0.419	725	914	0.6	0.7	3.582	A
2 - South	1 - A249 onslip (SB)			835				724				
	2 - B2005 - link	913	228	116	1823	0.501	912	719	0.7	1.0	3.949	A
	3 - A249 offslip (SB)	489	122	1028	946	0.517	487	0	0.6	1.0	7.801	A
	4 - Swale Way	1429	357	659	1026	1.393	1025	856	28.0	129.0	284.550	F
	5 - Grovehurst Road	588	147	975	799	0.736	584	709	1.6	2.6	16.417	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	916	229	726	961	0.953	906	0	10.3	12.7	53.097	F
	2 - Grovehurst Road	250	62	1194	768	0.326	250	438	0.5	0.5	6.952	A
	3 - A249 onslip (NB)			930				513				
	4 - B2005 - link	726	182	0	1730	0.420	726	930	0.7	0.7	3.584	A
2 - South	1 - A249 onslip (SB)			837				723				
	2 - B2005 - link	930	233	117	1822	0.511	930	720	1.0	1.0	4.035	A
	3 - A249 offslip (SB)	489	122	1047	929	0.526	489	0	1.0	1.1	8.171	A
	4 - Swale Way	1429	357	668	1020	1.401	1020	868	129.0	231.2	624.559	F
	5 - Grovehurst Road	588	147	972	801	0.734	588	716	2.6	2.7	16.793	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	748	187	682	993	0.753	786	0	12.7	3.3	20.046	C
	2 - Grovehurst Road	204	51	1070	872	0.234	205	398	0.5	0.3	5.400	A
	3 - A249 onslip (NB)			796				478				
	4 - B2005 - link	681	170	0	1730	0.394	682	796	0.7	0.7	3.434	A
	1 - A249 onslip (SB)			772				732				

2 - South	2 - B2005 - link	798	199	96	1834	0.435	799	676	1.0	0.8	3.479	A
	3 - A249 offslip (SB)	399	100	895	1067	0.374	401	0	1.1	0.6	5.418	A
	4 - Swale Way	1167	292	563	1089	1.072	1089	733	231.2	250.8	781.133	F
	5 - Grovehurst Road	480	120	1020	763	0.629	484	632	2.7	1.8	13.070	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	626	157	651	1016	0.617	633	0	3.3	1.6	9.548	A
	2 - Grovehurst Road	171	43	929	992	0.172	171	354	0.3	0.2	4.387	A
	3 - A249 onslip (NB)			647				454				
	4 - B2005 - link	650	163	0	1730	0.376	651	647	0.7	0.6	3.337	A
2 - South	1 - A249 onslip (SB)			725				742				
	2 - B2005 - link	647	162	80	1844	0.351	648	645	0.8	0.5	3.015	A
	3 - A249 offslip (SB)	334	84	728	1220	0.274	335	0	0.6	0.4	4.074	A
	4 - Swale Way	977	244	462	1155	0.846	1150	601	250.8	207.4	717.337	F
	5 - Grovehurst Road	402	101	1063	729	0.552	404	550	1.8	1.3	11.163	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.39	0.54	1.29	1.83	1.98			N/A	N/A
	2 - Grovehurst Road	0.20	0.00	0.00	0.20	0.20			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	4 - Swale Way	4.75	0.03	0.30	4.75	21.06			N/A	N/A
	5 - Grovehurst Road	0.86	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.80	0.06	1.03	7.47	11.31			N/A	N/A
	2 - Grovehurst Road	0.29	0.00	0.00	0.29	0.29			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.63	0.21	0.93	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.70	0.10	0.84	1.38	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.56	0.07	0.70	1.34	1.42			N/A	N/A
	4 - Swale Way	27.99	0.79	17.03	67.58	90.34			N/A	N/A
	5 - Grovehurst Road	1.58	0.09	1.16	3.18	4.31			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.33	0.11	3.22	28.59	42.26			N/A	N/A
	2 - Grovehurst Road	0.46	0.03	0.25	0.46	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.25	0.72	0.72			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.00	0.03	0.26	1.00	1.00			N/A	N/A
	3 - A249 offslip (SB)	1.05	0.03	0.26	1.05	1.05			N/A	N/A
	4 - Swale Way	128.99	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.62	0.03	0.31	3.31	12.58			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	12.74	0.07	1.53	37.40	61.01			N/A	N/A
	2 - Grovehurst Road	0.48	0.03	0.32	1.44	1.93			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.27	0.72	1.07			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.04	0.03	0.27	1.04	1.43			N/A	N/A
	3 - A249 offslip (SB)	1.10	0.03	0.28	1.10	3.75			N/A	N/A
	4 - Swale Way	231.22	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.68	0.03	0.28	2.68	6.94			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.26	0.04	0.41	8.90	16.65			N/A	N/A
	2 - Grovehurst Road	0.31	0.00	0.00	0.31	0.31			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.65	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.77	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.60	0.10	0.83	1.37	1.43			N/A	N/A
	4 - Swale Way	250.75	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.76	0.05	0.65	4.50	6.84			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.65	0.03	0.31	2.56	8.29			N/A	N/A
	2 - Grovehurst Road	0.21	0.00	0.00	0.21	0.21			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.54	0.54	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.38	0.03	0.30	0.94	1.22			N/A	N/A
	4 - Swale Way	207.44	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.26	0.05	0.45	3.15	4.97			N/A	N/A

# 2031 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	233.21	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	478.79	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D29	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1109	100.000
	2 - Grovehurst Road		ONE HOUR	✓	737	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	620	100.000
	4 - Swale Way		ONE HOUR	✓	769	100.000

5 - Grovehurst Road	ONE HOUR	✓	775	100.000
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## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	123	0	986
		2 - Grovehurst Road	0	0	38	699
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	159	403	0	

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	419	0	0	1033	231
		3 - A249 offslip (SB)	1	22	0	381	216
		4 - Swale Way	462	229	0	0	78
	5 - Grovehurst Road	289	313	0	173	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	2	0	16
		2 - Grovehurst Road	0	0	5	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	6	0	

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	16	5
		3 - A249 offslip (SB)	0	5	0	9	3
		4 - Swale Way	36	10	0	0	9
	5 - Grovehurst Road	0	1	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.08	149.53	55.2	115.4	F	1018	1526
	2 - Grovehurst Road	1.30	546.65	104.4	157.7	F	676	1014
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.31	3.10	0.4	1.9	A	491	736
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.84	11.53	5.0	23.6	B	1510	2265
	3 - A249 offslip (SB)	1.83	2180.71	246.2	187.3	F	569	853
	4 - Swale Way	0.99	79.77	18.3	68.9	F	706	1058
	5 - Grovehurst Road	1.38	616.73	125.0	181.4	F	711	1067

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	835	209	416	1208	0.691	826	0	0.0	2.2	9.241	A
	2 - Grovehurst Road	555	139	1033	897	0.618	549	209	0.0	1.6	10.151	B
	3 - A249 onslip (NB)			1255				326				
	4 - B2005 - link	417	104	0	1674	0.249	416	1255	0.0	0.3	2.859	A
2 - South	1 - A249 onslip (SB)			548				869				
	2 - B2005 - link	1251	313	129	1922	0.651	1244	419	0.0	1.8	5.253	A
	3 - A249 offslip (SB)	467	117	1373	690	0.677	459	0	0.0	2.0	15.102	C
	4 - Swale Way	579	145	657	916	0.632	572	1174	0.0	1.7	10.293	B
	5 - Grovehurst Road	583	146	841	884	0.660	576	389	0.0	1.9	11.432	B

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	997	249	489	1151	0.866	983	0	2.2	5.6	19.997	C
	2 - Grovehurst Road	663	166	1225	743	0.891	644	247	1.6	6.1	31.900	D
	3 - A249 onslip (NB)			1485				384				
	4 - B2005 - link	489	122	0	1674	0.292	489	1485	0.3	0.4	3.038	A
2 - South	1 - A249 onslip (SB)			642				1030				
	2 - B2005 - link	1482	370	150	1909	0.776	1476	492	1.8	3.3	8.200	A
	3 - A249 offslip (SB)	557	139	1626	471	1.183	459	0	2.0	26.7	136.510	F
	4 - Swale Way	691	173	747	864	0.800	683	1338	1.7	3.6	19.140	C
	5 - Grovehurst Road	697	174	999	754	0.925	673	432	1.9	7.7	37.344	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1221	305	509	1135	1.075	1113	0	5.6	32.4	73.987	F
	2 - Grovehurst Road	811	203	1355	638	1.273	632	268	6.1	50.9	178.041	F
	3 - A249 onslip (NB)			1590				398				
	4 - B2005 - link	509	127	0	1674	0.304	509	1590	0.4	0.4	3.090	A
2 - South	1 - A249 onslip (SB)			651				1117				
	2 - B2005 - link	1593	398	141	1914	0.832	1588	510	3.3	4.7	10.813	B
	3 - A249 offslip (SB)	683	171	1729	381	1.789	381	0	26.7	102.0	630.349	F
	4 - Swale Way	847	212	760	857	0.989	808	1350	3.6	13.4	51.226	F
	5 - Grovehurst Road	853	213	1135	636	1.342	633	433	7.7	62.8	216.483	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1221	305	509	1135	1.075	1130	0	32.4	55.2	149.535	F
	2 - Grovehurst Road	811	203	1370	625	1.298	625	269	50.9	97.5	436.091	F
	3 - A249 onslip (NB)			1597				397				
	4 - B2005 - link	509	127	0	1674	0.304	509	1597	0.4	0.4	3.090	A
2 - South	1 - A249 onslip (SB)			647				1126				
	2 - B2005 - link	1602	400	138	1917	0.836	1601	509	4.7	4.9	11.327	B
	3 - A249 offslip (SB)	683	171	1739	373	1.832	373	0	102.0	179.5	1372.680	F
	4 - Swale Way	847	212	762	855	0.990	827	1349	13.4	18.3	79.773	F
	5 - Grovehurst Road	853	213	1156	618	1.381	618	433	62.8	121.7	527.657	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	997	249	509	1136	0.878	1115	0	55.2	25.6	133.867	F
	2 - Grovehurst Road	663	166	1357	636	1.041	635	268	97.5	104.4	546.651	F
	3 - A249 onslip (NB)			1594				398				
	4 - B2005 - link	509	127	0	1674	0.304	509	1594	0.4	0.4	3.090	A

2 - South	1 - A249 onslip (SB)			664				1101				
	2 - B2005 - link	1597	399	153	1907	0.837	1597	511	4.9	5.0	11.529	B
	3 - A249 offslip (SB)	557	139	1749	364	1.529	364	0	179.5	227.8	1941.722	F
	4 - Swale Way	691	173	757	858	0.805	746	1356	18.3	4.7	40.287	E
	5 - Grovehurst Road	697	174	1081	685	1.017	683	422	121.7	125.0	616.730	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	835	209	512	1133	0.737	925	0	25.6	3.0	24.464	C
	2 - Grovehurst Road	555	139	1190	773	0.718	766	247	104.4	51.6	369.255	F
	3 - A249 onslip (NB)			1549				407				
	4 - B2005 - link	512	128	0	1674	0.306	512	1549	0.4	0.4	3.098	A
2 - South	1 - A249 onslip (SB)			700				1041				
	2 - B2005 - link	1534	384	182	1889	0.812	1536	518	5.0	4.5	10.272	B
	3 - A249 offslip (SB)	467	117	1718	393	1.187	393	0	227.8	246.2	2180.711	F
	4 - Swale Way	579	145	745	865	0.669	589	1366	4.7	2.1	13.501	B
	5 - Grovehurst Road	583	146	927	821	0.711	814	408	125.0	67.4	427.418	F

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.17	0.17	1.20	4.16	5.41			N/A	N/A
	2 - Grovehurst Road	1.57	0.04	0.35	3.86	8.03			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.83	0.66	1.34	2.23	2.65			N/A	N/A
	3 - A249 offslip (SB)	1.98	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	1.67	0.53	1.04	2.45	2.87			N/A	N/A
	5 - Grovehurst Road	1.87	0.03	0.34	4.28	9.77			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	5.56	0.10	1.92	14.69	21.21			N/A	N/A
	2 - Grovehurst Road	6.11	0.08	1.38	17.05	25.89			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.41	0.00	0.00	0.41	0.41			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	3.34	0.06	1.13	9.04	13.79			N/A	N/A
	3 - A249 offslip (SB)	26.69	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	3.63	0.08	1.15	9.35	13.50			N/A	N/A
	5 - Grovehurst Road	7.70	0.10	2.30	21.16	31.30			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	32.45	6.71	27.63	59.86	72.03			N/A	N/A
	2 - Grovehurst Road	50.88	23.71	48.06	75.70	85.08			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.44	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.66	0.03	0.31	4.97	21.52			N/A	N/A
	3 - A249 offslip (SB)	102.04	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	13.42	0.29	7.30	33.23	45.27			N/A	N/A
	5 - Grovehurst Road	62.84	32.77	60.13	89.72	99.56			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or	Probability of exactly reaching
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									exceeding marker	marker
1 - North	1 - A249 offslip (NB)	55.18	14.57	48.72	97.43	115.38			N/A	N/A
	2 - Grovehurst Road	97.53	57.29	94.57	132.86	145.35			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.44	0.03	0.29	1.20	1.92			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.88	0.03	0.28	4.88	8.06			N/A	N/A
	3 - A249 offslip (SB)	179.54	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	18.31	0.20	8.12	48.63	68.86			N/A	N/A
	5 - Grovehurst Road	121.71	78.66	119.03	158.67	171.33			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	25.59	4.08	21.01	49.27	60.22			N/A	N/A
	2 - Grovehurst Road	104.37	59.90	101.03	143.74	157.73			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.44	0.00	0.00	0.44	0.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.98	0.05	0.83	14.30	23.59			N/A	N/A
	3 - A249 offslip (SB)	227.78	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	4.72	0.05	0.46	13.39	23.90			N/A	N/A
	5 - Grovehurst Road	125.03	77.02	121.83	166.88	181.42			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.98	0.03	0.31	4.38	14.93			N/A	N/A
	2 - Grovehurst Road	51.63	23.56	48.66	77.38	87.14			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.44	0.00	0.00	0.44	0.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.50	0.14	2.16	10.79	14.77			N/A	N/A
	3 - A249 offslip (SB)	246.18	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	2.10	0.03	0.31	3.50	10.79			N/A	N/A
	5 - Grovehurst Road	67.36	31.93	63.86	99.91	112.11			N/A	N/A



# 2031 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	310.55	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	730.37	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D30	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1192	100.000
	2 - Grovehurst Road		ONE HOUR	✓	389	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	529	100.000
	4 - Swale Way		ONE HOUR	✓	1376	100.000

5 - Grovehurst Road	ONE HOUR	✓	613	100.000
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## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	430	0	762
		2 - Grovehurst Road	0	0	34	355
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	277	560	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	187	0	0	524	402
		3 - A249 offslip (SB)	1	39	0	202	287
		4 - Swale Way	780	435	0	0	161
		5 - Grovehurst Road	150	356	0	107	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	0	0	19
		2 - Grovehurst Road	0	0	0	0
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	3	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	1	0	0	27	1
		3 - A249 offslip (SB)	0	8	0	8	3
		4 - Swale Way	17	3	0	0	3
		5 - Grovehurst Road	0	1	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.29	565.98	168.5	200.0	F	1094	1641
	2 - Grovehurst Road	0.51	8.59	1.0	2.4	A	357	535
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.41	3.54	0.7	1.5	A	656	984
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.55	4.21	1.2	1.9	A	968	1452
	3 - A249 offslip (SB)	0.66	12.22	1.9	5.6	B	485	728
	4 - Swale Way	1.73	1847.29	504.9	180.3	F	1263	1894
	5 - Grovehurst Road	0.83	25.85	4.6	23.5	D	562	844

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	897	224	599	1103	0.814	881	0	0.0	4.0	15.315	C
	2 - Grovehurst Road	293	73	965	978	0.300	291	516	0.0	0.4	5.232	A
	3 - A249 onslip (NB)			829				426				
	4 - B2005 - link	602	150	0	1730	0.348	599	829	0.0	0.5	3.179	A
2 - South	1 - A249 onslip (SB)			679				798				
	2 - B2005 - link	827	207	80	1906	0.434	824	599	0.0	0.8	3.317	A
	3 - A249 offslip (SB)	398	100	903	1092	0.365	396	0	0.0	0.6	5.154	A
	4 - Swale Way	1036	259	681	1022	1.014	966	619	0.0	17.4	45.187	E
	5 - Grovehurst Road	461	115	1022	782	0.590	456	625	0.0	1.4	10.867	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1072	268	651	1063	1.008	1017	0	4.0	17.6	50.652	F
	2 - Grovehurst Road	350	87	1086	877	0.399	349	583	0.4	0.7	6.801	A
	3 - A249 onslip (NB)			969				466				
	4 - B2005 - link	652	163	0	1730	0.377	651	969	0.5	0.6	3.338	A
2 - South	1 - A249 onslip (SB)			746				829				
	2 - B2005 - link	964	241	96	1896	0.509	963	650	0.8	1.0	3.856	A
	3 - A249 offslip (SB)	476	119	1059	953	0.499	474	0	0.6	1.0	7.488	A
	4 - Swale Way	1237	309	803	942	1.314	940	730	17.4	91.7	223.478	F
	5 - Grovehurst Road	551	138	1027	779	0.707	548	715	1.4	2.3	15.290	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1312	328	708	1020	1.286	1018	0	17.6	91.2	202.458	F
	2 - Grovehurst Road	428	107	1124	849	0.505	427	602	0.7	1.0	8.512	A
	3 - A249 onslip (NB)			1040				511				
	4 - B2005 - link	708	177	0	1730	0.409	708	1040	0.6	0.7	3.523	A
2 - South	1 - A249 onslip (SB)			823				834				
	2 - B2005 - link	1028	257	116	1883	0.546	1027	707	1.0	1.2	4.201	A
	3 - A249 offslip (SB)	582	146	1144	878	0.663	579	0	1.0	1.9	11.882	B
	4 - Swale Way	1515	379	901	876	1.729	876	821	91.7	251.4	711.688	F
	5 - Grovehurst Road	675	169	990	810	0.834	667	788	2.3	4.4	23.799	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1312	328	712	1017	1.291	1017	0	91.2	165.1	454.457	F
	2 - Grovehurst Road	428	107	1126	847	0.506	428	602	1.0	1.0	8.591	A
	3 - A249 onslip (NB)			1041				514				
	4 - B2005 - link	712	178	0	1730	0.412	712	1041	0.7	0.7	3.536	A
2 - South	1 - A249 onslip (SB)			828				835				
	2 - B2005 - link	1028	257	118	1883	0.546	1028	711	1.2	1.2	4.212	A
	3 - A249 offslip (SB)	582	146	1146	876	0.665	582	0	1.9	1.9	12.221	B
	4 - Swale Way	1515	379	904	875	1.732	875	824	251.4	411.5	1369.530	F
	5 - Grovehurst Road	675	169	989	811	0.833	674	790	4.4	4.6	25.850	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1072	268	656	1060	1.011	1058	0	165.1	168.5	565.975	F
	2 - Grovehurst Road	350	87	1115	852	0.410	351	599	1.0	0.7	7.199	A
	3 - A249 onslip (NB)			997				470				
	4 - B2005 - link	656	164	0	1730	0.379	656	997	0.7	0.6	3.352	A

2 - South	1 - A249 onslip (SB)			752				831				
	2 - B2005 - link	994	248	98	1895	0.524	994	654	1.2	1.1	3.999	A
	3 - A249 offslip (SB)	476	119	1092	924	0.515	479	0	1.9	1.1	8.156	A
	4 - Swale Way	1237	309	822	929	1.332	929	749	411.5	488.5	1712.460	F
	5 - Grovehurst Road	551	138	1023	783	0.704	560	728	4.6	2.5	16.687	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	897	224	609	1096	0.819	1089	0	168.5	120.5	478.385	F
	2 - Grovehurst Road	293	73	1104	859	0.341	294	594	0.7	0.5	6.380	A
	3 - A249 onslip (NB)			964				433				
	4 - B2005 - link	608	152	0	1730	0.352	609	964	0.6	0.5	3.211	A
2 - South	1 - A249 onslip (SB)			688				827				
	2 - B2005 - link	968	242	81	1905	0.508	969	606	1.1	1.0	3.848	A
	3 - A249 offslip (SB)	398	100	1050	960	0.415	400	0	1.1	0.7	6.439	A
	4 - Swale Way	1036	259	760	970	1.068	970	690	488.5	504.9	1847.292	F
	5 - Grovehurst Road	461	115	1050	762	0.606	465	680	2.5	1.6	12.294	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.98	0.04	0.37	9.89	21.43			N/A	N/A
	2 - Grovehurst Road	0.42	0.00	0.00	0.42	0.42			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.76	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.57	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	17.42	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.40	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	17.58	0.43	10.25	42.78	57.60			N/A	N/A
	2 - Grovehurst Road	0.66	0.14	0.89	1.38	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.03	0.11	0.97	1.63	1.93			N/A	N/A
	3 - A249 offslip (SB)	0.98	0.08	0.88	1.68	2.05			N/A	N/A
	4 - Swale Way	91.74	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.29	0.09	1.34	5.34	7.46			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	91.18	48.26	87.55	129.86	143.90			N/A	N/A
	2 - Grovehurst Road	1.00	0.03	0.26	1.00	1.00			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.69	0.03	0.25	0.69	0.69			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.19	0.03	0.26	1.19	1.19			N/A	N/A
	3 - A249 offslip (SB)	1.90	0.03	0.28	1.90	5.59			N/A	N/A
	4 - Swale Way	251.40	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.37	0.04	0.38	11.14	23.54			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or	Probability of exactly reaching
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									exceeding marker	marker
1 - North	1 - A249 offslip (NB)	165.12	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.01	0.03	0.27	1.01	2.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.70	0.03	0.27	0.70	1.47			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.20	0.03	0.26	1.20	1.20			N/A	N/A
	3 - A249 offslip (SB)	1.94	0.03	0.28	1.94	4.11			N/A	N/A
	4 - Swale Way	411.48	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.62	0.03	0.31	5.75	22.18			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	168.49	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.70	0.14	0.89	1.38	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.11	0.55	1.06	1.11	1.55			N/A	N/A
	3 - A249 offslip (SB)	1.08	0.08	0.91	1.91	2.64			N/A	N/A
	4 - Swale Way	488.48	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.51	0.04	0.44	6.90	11.93			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	120.49	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.52	0.05	0.50	1.30	1.40			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.55	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.04	0.55	1.03	1.10	1.10			N/A	N/A
	3 - A249 offslip (SB)	0.72	0.05	0.46	1.41	1.95			N/A	N/A
	4 - Swale Way	504.89	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.59	0.04	0.37	4.02	7.89			N/A	N/A

# 2031 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	246.69	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	509.21	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D33	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1118	100.000
	2 - Grovehurst Road		ONE HOUR	✓	737	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	620	100.000
	4 - Swale Way		ONE HOUR	✓	779	100.000

5 - Grovehurst Road	ONE HOUR	✓	775	100.000
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## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	123	0	995
		2 - Grovehurst Road	0	0	38	699
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	159	403	0	

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	419	0	0	1042	231
		3 - A249 offslip (SB)	1	22	0	381	216
		4 - Swale Way	472	229	0	0	78
	5 - Grovehurst Road	289	313	0	173	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	2	0	17
		2 - Grovehurst Road	0	0	5	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	6	0	

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	16	5
		3 - A249 offslip (SB)	0	5	0	9	3
		4 - Swale Way	38	10	0	0	1
	5 - Grovehurst Road	0	1	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.09	164.89	61.6	121.6	F	1026	1539
	2 - Grovehurst Road	1.30	567.67	107.1	163.0	F	676	1014
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.30	3.08	0.4	1.9	A	487	730
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.84	11.61	5.0	24.7	B	1520	2279
	3 - A249 offslip (SB)	1.84	2303.87	253.2	187.3	F	569	853
	4 - Swale Way	1.01	91.68	21.8	73.0	F	715	1072
	5 - Grovehurst Road	1.41	678.72	137.5	195.7	F	711	1067

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	842	210	415	1198	0.702	833	0	0.0	2.3	9.618	A
	2 - Grovehurst Road	555	139	1039	887	0.626	548	209	0.0	1.6	10.447	B
	3 - A249 onslip (NB)			1261				326				
	4 - B2005 - link	417	104	0	1674	0.249	415	1261	0.0	0.3	2.858	A
2 - South	1 - A249 onslip (SB)			548				878				
	2 - B2005 - link	1264	316	129	1922	0.658	1257	419	0.0	1.9	5.354	A
	3 - A249 offslip (SB)	467	117	1385	679	0.688	458	0	0.0	2.1	15.803	C
	4 - Swale Way	586	147	659	911	0.644	579	1184	0.0	1.8	10.663	B
	5 - Grovehurst Road	583	146	850	871	0.670	576	389	0.0	1.9	11.899	B

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1005	251	487	1144	0.879	990	0	2.3	6.1	21.540	C
	2 - Grovehurst Road	663	166	1230	733	0.904	642	247	1.6	6.6	34.291	D
	3 - A249 onslip (NB)			1490				382				
	4 - B2005 - link	487	122	0	1674	0.291	487	1490	0.3	0.4	3.033	A
2 - South	1 - A249 onslip (SB)			639				1038				
	2 - B2005 - link	1495	374	149	1909	0.783	1488	490	1.9	3.5	8.436	A
	3 - A249 offslip (SB)	557	139	1638	460	1.211	450	0	2.1	29.0	149.010	F
	4 - Swale Way	700	175	745	861	0.813	692	1342	1.8	3.9	20.261	C
	5 - Grovehurst Road	697	174	1008	739	0.943	670	429	1.9	8.7	41.457	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1231	308	503	1131	1.088	1113	0	6.1	35.7	79.999	F
	2 - Grovehurst Road	811	203	1351	634	1.280	629	265	6.6	52.2	184.272	F
	3 - A249 onslip (NB)			1587				393				
	4 - B2005 - link	503	126	0	1674	0.301	503	1587	0.4	0.4	3.074	A
2 - South	1 - A249 onslip (SB)			642				1119				
	2 - B2005 - link	1599	400	139	1916	0.835	1594	503	3.5	4.7	10.979	B
	3 - A249 offslip (SB)	683	171	1732	378	1.806	378	0	29.0	105.2	662.047	F
	4 - Swale Way	858	214	758	854	1.004	812	1352	3.9	15.3	56.243	F
	5 - Grovehurst Road	853	213	1140	624	1.367	622	430	8.7	66.7	234.296	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1231	308	503	1131	1.088	1127	0	35.7	61.6	164.890	F
	2 - Grovehurst Road	811	203	1364	623	1.303	622	266	52.2	99.5	447.353	F
	3 - A249 onslip (NB)			1594				393				
	4 - B2005 - link	503	126	0	1674	0.300	503	1594	0.4	0.4	3.073	A
2 - South	1 - A249 onslip (SB)			638				1128				
	2 - B2005 - link	1607	402	135	1918	0.838	1606	502	4.7	5.0	11.471	B
	3 - A249 offslip (SB)	683	171	1741	370	1.845	370	0	105.2	183.4	1416.796	F
	4 - Swale Way	858	214	760	853	1.005	832	1352	15.3	21.8	91.677	F
	5 - Grovehurst Road	853	213	1160	606	1.407	606	431	66.7	128.5	570.136	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1005	251	503	1131	0.889	1113	0	61.6	34.6	158.076	F
	2 - Grovehurst Road	663	166	1351	633	1.046	632	265	99.5	107.1	567.673	F
	3 - A249 onslip (NB)			1590				394				
	4 - B2005 - link	503	126	0	1674	0.301	503	1590	0.4	0.4	3.075	A



2 - South	1 - A249 onslip (SB)			652				1108				
	2 - B2005 - link	1602	400	147	1910	0.839	1601	505	5.0	5.0	11.614	B
	3 - A249 offslip (SB)	557	139	1749	364	1.531	364	0	183.4	231.7	2013.499	F
	4 - Swale Way	700	175	756	855	0.819	766	1357	21.8	5.3	51.146	F
	5 - Grovehurst Road	697	174	1099	661	1.054	660	422	128.5	137.5	678.716	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	842	210	507	1129	0.746	967	0	34.6	3.2	37.466	E
	2 - Grovehurst Road	555	139	1224	739	0.751	732	250	107.1	62.8	419.903	F
	3 - A249 onslip (NB)			1555				401				
	4 - B2005 - link	507	127	0	1674	0.303	507	1555	0.4	0.4	3.083	A
2 - South	1 - A249 onslip (SB)			691				1046				
	2 - B2005 - link	1552	388	179	1891	0.821	1553	513	5.0	4.8	10.722	B
	3 - A249 offslip (SB)	467	117	1731	381	1.226	381	0	231.7	253.2	2303.872	F
	4 - Swale Way	586	147	743	862	0.680	599	1369	5.3	2.2	14.238	B
	5 - Grovehurst Road	583	146	938	806	0.724	800	405	137.5	83.5	499.079	F

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.28	0.16	1.24	4.54	5.87			N/A	N/A
	2 - Grovehurst Road	1.62	0.03	0.32	3.29	8.47			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.89	0.67	1.38	2.41	2.76			N/A	N/A
	3 - A249 offslip (SB)	2.08	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	1.75	0.51	1.10	2.68	3.14			N/A	N/A
	5 - Grovehurst Road	1.95	0.03	0.32	3.63	10.19			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	6.07	0.12	2.37	15.78	22.48			N/A	N/A
	2 - Grovehurst Road	6.64	0.08	1.37	18.75	28.79			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.41	0.00	0.00	0.41	0.41			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	3.47	0.07	1.18	9.40	14.27			N/A	N/A
	3 - A249 offslip (SB)	29.02	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	3.90	0.09	1.33	9.99	14.37			N/A	N/A
	5 - Grovehurst Road	8.73	0.10	2.79	23.94	35.22			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	35.66	8.81	31.11	63.46	75.43			N/A	N/A
	2 - Grovehurst Road	52.24	24.02	49.28	78.12	87.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.74	0.03	0.31	5.29	22.14			N/A	N/A
	3 - A249 offslip (SB)	105.24	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	15.25	0.54	9.47	35.88	47.59			N/A	N/A
	5 - Grovehurst Road	66.67	35.13	63.87	94.81	105.06			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or	Probability of exactly reaching
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									exceeding marker	marker
1 - North	1 - A249 offslip (NB)	61.55	19.31	55.59	104.09	121.57			N/A	N/A
	2 - Grovehurst Road	99.50	58.48	96.48	135.46	148.12			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.03	0.30	1.20	1.88			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.96	0.03	0.28	4.96	8.50			N/A	N/A
	3 - A249 offslip (SB)	183.40	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	21.75	0.44	12.36	53.83	72.98			N/A	N/A
	5 - Grovehurst Road	128.46	84.32	125.80	166.21	179.04			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	34.59	9.46	30.57	60.02	70.78			N/A	N/A
	2 - Grovehurst Road	107.07	60.64	103.52	148.33	163.02			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	5.04	0.05	0.52	14.42	24.70			N/A	N/A
	3 - A249 offslip (SB)	231.73	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	5.31	0.05	0.49	15.20	26.54			N/A	N/A
	5 - Grovehurst Road	137.54	87.52	134.41	180.81	195.65			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.19	0.03	0.32	4.82	16.08			N/A	N/A
	2 - Grovehurst Road	62.82	25.57	58.55	98.27	112.06			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.76	0.15	2.35	11.38	15.54			N/A	N/A
	3 - A249 offslip (SB)	253.24	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	2.22	0.03	0.31	3.58	11.31			N/A	N/A
	5 - Grovehurst Road	83.47	40.35	79.38	123.11	137.85			N/A	N/A

# 2031 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	323.94	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	786.32	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D34	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1197	100.000
	2 - Grovehurst Road		ONE HOUR	✓	389	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	529	100.000
	4 - Swale Way		ONE HOUR	✓	1396	100.000

5 - Grovehurst Road	ONE HOUR	✓	613	100.000
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## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	430	0	767
		2 - Grovehurst Road	0	0	34	355
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	277	561	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	187	0	0	528	402
		3 - A249 offslip (SB)	1	39	0	202	287
		4 - Swale Way	799	436	0	0	161
		5 - Grovehurst Road	150	356	0	107	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	0	0	20
		2 - Grovehurst Road	0	0	0	0
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	3	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	1	0	0	28	1
		3 - A249 offslip (SB)	0	8	0	8	3
		4 - Swale Way	18	3	0	0	3
		5 - Grovehurst Road	0	1	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.30	586.64	175.1	200.0	F	1098	1648
	2 - Grovehurst Road	0.51	8.64	1.0	2.4	A	357	535
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.41	3.52	0.7	1.5	A	652	977
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.55	4.26	1.2	2.0	A	971	1456
	3 - A249 offslip (SB)	0.67	12.44	2.0	5.9	B	485	728
	4 - Swale Way	1.77	1970.03	537.7	179.2	F	1281	1921
	5 - Grovehurst Road	0.84	26.17	4.7	23.8	D	562	844

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	901	225	596	1099	0.820	885	0	0.0	4.1	15.781	C
	2 - Grovehurst Road	293	73	966	972	0.301	291	515	0.0	0.4	5.275	A
	3 - A249 onslip (NB)			833				425				
	4 - B2005 - link	598	150	0	1730	0.346	596	833	0.0	0.5	3.171	A
2 - South	1 - A249 onslip (SB)			676				805				
	2 - B2005 - link	831	208	80	1897	0.438	828	596	0.0	0.8	3.359	A
	3 - A249 offslip (SB)	398	100	908	1085	0.367	396	0	0.0	0.6	5.212	A
	4 - Swale Way	1051	263	682	1015	1.035	968	622	0.0	20.7	51.055	F
	5 - Grovehurst Road	461	115	1025	775	0.596	456	625	0.0	1.4	11.103	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1076	269	646	1061	1.014	1018	0	4.1	18.6	52.924	F
	2 - Grovehurst Road	350	87	1085	873	0.401	349	579	0.4	0.7	6.856	A
	3 - A249 onslip (NB)			971				463				
	4 - B2005 - link	647	162	0	1730	0.374	646	971	0.5	0.6	3.322	A
2 - South	1 - A249 onslip (SB)			740				832				
	2 - B2005 - link	968	242	96	1887	0.513	967	645	0.8	1.0	3.906	A
	3 - A249 offslip (SB)	476	119	1062	946	0.503	474	0	0.6	1.0	7.599	A
	4 - Swale Way	1255	314	803	936	1.341	935	734	20.7	100.7	248.408	F
	5 - Grovehurst Road	551	138	1025	777	0.709	548	713	1.4	2.3	15.420	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1318	329	703	1018	1.295	1016	0	18.6	94.2	209.889	F
	2 - Grovehurst Road	428	107	1122	846	0.506	427	597	0.7	1.0	8.563	A
	3 - A249 onslip (NB)			1040				508				
	4 - B2005 - link	703	176	0	1730	0.407	703	1040	0.6	0.7	3.506	A
2 - South	1 - A249 onslip (SB)			818				836				
	2 - B2005 - link	1029	257	116	1875	0.549	1028	702	1.0	1.2	4.249	A
	3 - A249 offslip (SB)	582	146	1145	873	0.667	579	0	1.0	1.9	12.082	B
	4 - Swale Way	1537	384	900	872	1.762	872	823	100.7	266.9	765.165	F
	5 - Grovehurst Road	675	169	988	808	0.835	667	785	2.3	4.4	24.055	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1318	329	707	1014	1.299	1014	0	94.2	170.1	469.224	F
	2 - Grovehurst Road	428	107	1123	845	0.507	428	598	1.0	1.0	8.643	A
	3 - A249 onslip (NB)			1041				511				
	4 - B2005 - link	707	177	0	1730	0.409	707	1041	0.7	0.7	3.520	A
2 - South	1 - A249 onslip (SB)			824				837				
	2 - B2005 - link	1029	257	118	1874	0.549	1029	706	1.2	1.2	4.260	A
	3 - A249 offslip (SB)	582	146	1147	871	0.668	582	0	1.9	2.0	12.436	B
	4 - Swale Way	1537	384	903	871	1.766	871	826	266.9	433.6	1453.755	F
	5 - Grovehurst Road	675	169	986	809	0.835	674	787	4.4	4.7	26.173	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1076	269	651	1057	1.018	1056	0	170.1	175.1	586.640	F
	2 - Grovehurst Road	350	87	1112	849	0.412	351	595	1.0	0.7	7.240	A
	3 - A249 onslip (NB)			997				466				
	4 - B2005 - link	651	163	0	1730	0.376	651	997	0.7	0.6	3.337	A

2 - South	1 - A249 onslip (SB)			747				833				
	2 - B2005 - link	995	249	98	1886	0.528	996	649	1.2	1.1	4.046	A
	3 - A249 offslip (SB)	476	119	1093	918	0.518	479	0	2.0	1.1	8.266	A
	4 - Swale Way	1255	314	821	924	1.358	924	751	433.6	516.3	1814.148	F
	5 - Grovehurst Road	551	138	1021	781	0.706	560	725	4.7	2.5	16.845	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	901	225	603	1093	0.824	1087	0	175.1	128.6	503.641	F
	2 - Grovehurst Road	293	73	1101	856	0.342	294	590	0.7	0.5	6.412	A
	3 - A249 onslip (NB)			965				430				
	4 - B2005 - link	603	151	0	1730	0.349	603	965	0.6	0.5	3.198	A
2 - South	1 - A249 onslip (SB)			682				830				
	2 - B2005 - link	970	243	81	1896	0.512	971	601	1.1	1.1	3.891	A
	3 - A249 offslip (SB)	398	100	1052	954	0.417	400	0	1.1	0.7	6.507	A
	4 - Swale Way	1051	263	759	965	1.089	965	693	516.3	537.7	1970.027	F
	5 - Grovehurst Road	461	115	1047	760	0.607	465	678	2.5	1.6	12.376	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.13	0.04	0.36	9.83	22.36			N/A	N/A
	2 - Grovehurst Road	0.43	0.00	0.00	0.43	0.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.78	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.58	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	20.66	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.43	0.55	1.00	1.43	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	18.62	0.46	10.95	45.25	60.85			N/A	N/A
	2 - Grovehurst Road	0.66	0.14	0.89	1.38	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.04	0.11	0.98	1.67	1.97			N/A	N/A
	3 - A249 offslip (SB)	0.99	0.08	0.88	1.72	2.17			N/A	N/A
	4 - Swale Way	100.73	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.31	0.09	1.35	5.39	7.52			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	94.16	49.97	90.45	134.00	148.47			N/A	N/A
	2 - Grovehurst Road	1.01	0.03	0.26	1.01	1.01			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.68	0.03	0.25	0.68	0.68			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.20	0.03	0.26	1.20	1.20			N/A	N/A
	3 - A249 offslip (SB)	1.93	0.03	0.28	1.93	5.93			N/A	N/A
	4 - Swale Way	266.94	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.41	0.04	0.39	11.36	23.78			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or	Probability of exactly reaching
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									exceeding marker	marker
1 - North	1 - A249 offslip (NB)	170.09	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.02	0.03	0.27	1.02	2.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.69	0.03	0.27	0.69	1.54			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.21	0.03	0.26	1.21	1.21			N/A	N/A
	3 - A249 offslip (SB)	1.97	0.03	0.28	1.97	4.26			N/A	N/A
	4 - Swale Way	433.56	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.67	0.03	0.31	5.98	22.62			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	175.10	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.71	0.14	0.89	1.38	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.13	0.55	1.07	1.23	1.62			N/A	N/A
	3 - A249 offslip (SB)	1.09	0.07	0.90	1.96	2.73			N/A	N/A
	4 - Swale Way	516.25	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.53	0.04	0.44	6.95	12.05			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	128.60	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.53	0.05	0.50	1.30	1.40			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.54	0.54	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.06	0.55	1.03	1.28	1.28			N/A	N/A
	3 - A249 offslip (SB)	0.72	0.05	0.45	1.46	2.00			N/A	N/A
	4 - Swale Way	537.70	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.60	0.04	0.37	4.05	7.96			N/A	N/A

# Junctions 9

## ARCADY 9 - Roundabout Module

Version: 9.0.2.5947  
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**Filename:** Dumbbell\_Mitigation.j9

**Path:** P:\JNY9290 - Kemsley K5\Transport\Arcady\WKN DCO\North and South Dumbell Roundabouts

**Report generation date:** 18/03/2019 10:02:25

»2017, AM  
 »2017, PM  
 »2024, AM  
 »2024, PM  
 »2024 + Cumulative Development, AM  
 »2024 + Cumulative Development, PM  
 »2024 + K3 Operational, AM  
 »2024 + K3 Operational, PM  
 »2024 + WKN Operational, AM  
 »2024 + WKN Operational, PM  
 »2024 + K3 and WKN Operational, AM  
 »2024 + K3 and WKN Operational, PM  
 »2024 + K3 Operational + Cumulative Development, AM  
 »2024 + K3 Operational + Cumulative Development, PM  
 »2024 + WKN Operational + Cumulative Development, AM  
 »2024 + WKN Operational + Cumulative Development, PM  
 »2024 + K3 and WKN Operational + Cumulative Development, AM  
 »2024 + K3 and WKN Operational + Cumulative Development, PM  
 »2031, AM  
 »2031, PM  
 »2031 + Cumulative Development, AM  
 »2031 + Cumulative Development, PM  
 »2031 + K3 Operational, AM  
 »2031 + K3 Operational, PM  
 »2031 + WKN Operational, AM  
 »2031 + WKN Operational, PM  
 »2031 + K3 and WKN Operational, AM  
 »2031 + K3 and WKN Operational, PM  
 »2031 + K3 Operational + Cumulative Development, AM  
 »2031 + K3 Operational + Cumulative Development, PM  
 »2031 + WKN Operational + Cumulative Development, AM  
 »2031 + WKN Operational + Cumulative Development, PM  
 »2031 + K3 and WKN Operational + Cumulative Development, AM  
 »2031 + K3 and WKN Operational + Cumulative Development, PM

### Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
<b>2017</b>						
1 - North - 1 - A249 offslip (NB)	1.7	8.43	0.63	4.7	21.72	0.84
1 - North - 2 - Grovehurst Road	0.9	7.71	0.48	0.4	5.88	0.29
1 - North - 4 - B2005 - link	0.4	3.00	0.29	0.8	3.67	0.43
2 - South - 2 - B2005 - link	1.3	4.38	0.57	0.8	3.37	0.44
2 - South - 3 - A249 offslip (SB)	2.2	14.29	0.69	0.8	6.19	0.45
2 - South - 4 - Swale Way	1.5	8.84	0.60	34.1	106.63	1.04
2 - South - 5 - Grovehurst Road	1.7	9.94	0.64	2.3	14.92	0.71



	2024					
1 - North - 1 - A249 offslip (NB)	5.9	23.46	0.87	11.5	48.69	0.94
1 - North - 2 - Grovehurst Road	2.2	17.12	0.70	0.5	6.87	0.32
1 - North - 4 - B2005 - link	0.5	3.15	0.31	0.7	3.63	0.42
2 - South - 2 - B2005 - link	2.7	7.34	0.74	1.0	3.96	0.50
2 - South - 3 - A249 offslip (SB)	57.3	292.82	1.22	1.1	7.94	0.52
2 - South - 4 - Swale Way	3.2	15.85	0.77	224.0	703.33	1.37
2 - South - 5 - Grovehurst Road	3.8	21.06	0.80	2.6	16.62	0.73
<b>2024 + Cumulative Development</b>						
1 - North - 1 - A249 offslip (NB)	9.9	38.08	0.93	27.3	97.38	1.02
1 - North - 2 - Grovehurst Road	3.2	24.32	0.77	0.5	7.68	0.36
1 - North - 4 - B2005 - link	0.5	3.23	0.34	0.7	3.60	0.42
2 - South - 2 - B2005 - link	3.0	8.00	0.76	1.1	4.21	0.54
2 - South - 3 - A249 offslip (SB)	84.1	432.09	1.36	1.4	9.89	0.59
2 - South - 4 - Swale Way	3.8	18.81	0.80	297.3	994.73	1.48
2 - South - 5 - Grovehurst Road	13.7	63.48	0.97	3.2	18.18	0.77
<b>2024 + K3 Operational</b>						
1 - North - 1 - A249 offslip (NB)	5.9	23.76	0.87	12.5	52.60	0.95
1 - North - 2 - Grovehurst Road	2.2	17.26	0.70	0.5	6.95	0.33
1 - North - 4 - B2005 - link	0.5	3.15	0.31	0.7	3.62	0.42
2 - South - 2 - B2005 - link	2.7	7.38	0.74	1.0	3.99	0.51
2 - South - 3 - A249 offslip (SB)	58.1	297.32	1.22	1.1	8.08	0.52
2 - South - 4 - Swale Way	3.4	16.39	0.78	231.1	726.70	1.38
2 - South - 5 - Grovehurst Road	3.9	21.80	0.81	2.6	16.61	0.73
<b>2024 + WKN Operational</b>						
1 - North - 1 - A249 offslip (NB)	6.2	24.71	0.87	12.4	51.99	0.95
1 - North - 2 - Grovehurst Road	2.3	17.69	0.71	0.5	6.94	0.33
1 - North - 4 - B2005 - link	0.5	3.15	0.31	0.7	3.61	0.42
2 - South - 2 - B2005 - link	2.8	7.53	0.74	1.0	4.03	0.51
2 - South - 3 - A249 offslip (SB)	60.7	311.09	1.24	1.1	8.14	0.53
2 - South - 4 - Swale Way	3.5	17.11	0.79	247.9	773.20	1.40
2 - South - 5 - Grovehurst Road	4.1	22.93	0.81	2.7	16.77	0.74
<b>2024 + K3 and WKN Operational</b>						
1 - North - 1 - A249 offslip (NB)	6.6	26.48	0.88	12.7	53.10	0.95
1 - North - 2 - Grovehurst Road	2.4	18.37	0.71	0.5	6.95	0.33
1 - North - 4 - B2005 - link	0.5	3.15	0.31	0.7	3.58	0.42
2 - South - 2 - B2005 - link	2.9	7.68	0.75	1.0	4.03	0.51
2 - South - 3 - A249 offslip (SB)	64.5	332.25	1.26	1.1	8.17	0.53
2 - South - 4 - Swale Way	3.7	17.73	0.79	250.8	781.13	1.40
2 - South - 5 - Grovehurst Road	4.2	23.88	0.82	2.7	16.79	0.74
<b>2024 + K3 Operational + Cumulative Development</b>						
1 - North - 1 - A249 offslip (NB)	10.0	38.63	0.93	28.1	99.38	1.02
1 - North - 2 - Grovehurst Road	3.2	24.53	0.77	0.5	7.70	0.36
1 - North - 4 - B2005 - link	0.5	3.23	0.34	0.7	3.59	0.42
2 - South - 2 - B2005 - link	3.1	8.03	0.76	1.1	4.24	0.54
2 - South - 3 - A249 offslip (SB)	84.8	436.58	1.36	1.4	9.94	0.60
2 - South - 4 - Swale Way	3.9	19.27	0.81	302.7	1013.76	1.49
2 - South - 5 - Grovehurst Road	14.4	66.27	0.97	3.2	18.32	0.77
<b>2024 + WKN Operational + Cumulative Development</b>						
1 - North - 1 - A249 offslip (NB)	11.4	43.51	0.94	27.7	98.13	1.02
1 - North - 2 - Grovehurst Road	3.4	26.14	0.79	0.5	7.70	0.36
1 - North - 4 - B2005 - link	0.5	3.23	0.33	0.7	3.58	0.42
2 - South - 2 - B2005 - link	3.2	8.31	0.77	1.2	4.25	0.54
2 - South - 3 - A249 offslip (SB)	89.8	468.61	1.40	1.5	10.05	0.60
2 - South - 4 - Swale Way	4.2	20.19	0.81	320.7	1067.13	1.51
2 - South - 5 - Grovehurst Road	16.0	72.69	0.98	3.3	18.41	0.77
<b>2024 + K3 and WKN Operational + Cumulative Development</b>						
1 - North - 1 - A249 offslip (NB)	11.6	44.05	0.94	30.6	106.74	1.03
1 - North - 2 - Grovehurst Road	3.4	26.33	0.79	0.6	7.76	0.36
1 - North - 4 - B2005 - link	0.5	3.23	0.33	0.7	3.58	0.42
2 - South - 2 - B2005 - link	3.2	8.34	0.77	1.2	4.27	0.54
2 - South - 3 - A249 offslip (SB)	90.4	472.89	1.40	1.5	10.12	0.60
2 - South - 4 - Swale Way	4.3	21.06	0.82	325.2	1082.62	1.51
2 - South - 5 - Grovehurst Road	17.2	77.52	0.99	3.3	18.42	0.77

	2031					
1 - North - 1 - A249 offslip (NB)	5.9	23.46	0.87	11.5	48.69	0.94
1 - North - 2 - Grovehurst Road	2.2	17.12	0.70	0.5	6.87	0.32
1 - North - 4 - B2005 - link	0.5	3.15	0.31	0.7	3.63	0.42
2 - South - 2 - B2005 - link	2.7	7.34	0.74	1.0	3.96	0.50
2 - South - 3 - A249 offslip (SB)	57.3	292.82	1.22	1.1	7.94	0.52
2 - South - 4 - Swale Way	3.2	15.85	0.77	224.0	703.33	1.37
2 - South - 5 - Grovehurst Road	3.8	21.06	0.80	2.6	16.62	0.73
<b>2031 + Cumulative Development</b>						
1 - North - 1 - A249 offslip (NB)	54.4	147.69	1.07	166.8	560.89	1.29
1 - North - 2 - Grovehurst Road	104.0	544.11	1.30	1.0	8.58	0.51
1 - North - 4 - B2005 - link	0.4	3.10	0.31	0.7	3.54	0.41
2 - South - 2 - B2005 - link	5.0	11.50	0.84	1.2	4.21	0.55
2 - South - 3 - A249 offslip (SB)	244.5	2154.65	1.83	1.9	12.20	0.66
2 - South - 4 - Swale Way	17.6	77.33	0.99	503.2	1842.62	1.73
2 - South - 5 - Grovehurst Road	124.1	612.87	1.38	4.6	25.78	0.83
<b>2031 + K3 Operational</b>						
1 - North - 1 - A249 offslip (NB)	5.9	23.76	0.87	12.5	52.49	0.95
1 - North - 2 - Grovehurst Road	2.2	17.26	0.70	0.5	6.94	0.33
1 - North - 4 - B2005 - link	0.5	3.15	0.31	0.7	3.62	0.42
2 - South - 2 - B2005 - link	2.7	7.38	0.74	1.0	3.99	0.51
2 - South - 3 - A249 offslip (SB)	58.1	297.32	1.22	1.1	8.08	0.52
2 - South - 4 - Swale Way	3.4	16.39	0.78	232.1	729.47	1.38
2 - South - 5 - Grovehurst Road	3.9	21.80	0.81	2.6	16.62	0.73
<b>2031 + WKN Operational</b>						
1 - North - 1 - A249 offslip (NB)	6.2	24.71	0.87	12.4	51.99	0.95
1 - North - 2 - Grovehurst Road	2.3	17.69	0.71	0.5	6.94	0.33
1 - North - 4 - B2005 - link	0.5	3.15	0.31	0.7	3.61	0.42
2 - South - 2 - B2005 - link	2.8	7.53	0.74	1.0	4.03	0.51
2 - South - 3 - A249 offslip (SB)	60.7	311.09	1.24	1.1	8.14	0.53
2 - South - 4 - Swale Way	3.5	17.11	0.79	247.9	773.20	1.40
2 - South - 5 - Grovehurst Road	4.1	22.93	0.81	2.7	16.77	0.74
<b>2031 + K3 and WKN Operational</b>						
1 - North - 1 - A249 offslip (NB)	6.6	26.48	0.88	12.7	53.10	0.95
1 - North - 2 - Grovehurst Road	2.4	18.37	0.71	0.5	6.95	0.33
1 - North - 4 - B2005 - link	0.5	3.15	0.31	0.7	3.58	0.42
2 - South - 2 - B2005 - link	2.9	7.68	0.75	1.0	4.03	0.51
2 - South - 3 - A249 offslip (SB)	64.5	332.25	1.26	1.1	8.17	0.53
2 - South - 4 - Swale Way	3.7	17.73	0.79	250.8	781.13	1.40
2 - South - 5 - Grovehurst Road	4.2	23.88	0.82	2.7	16.79	0.74
<b>2031 + K3 Operational + Cumulative Development</b>						
1 - North - 1 - A249 offslip (NB)	55.2	149.53	1.08	168.5	565.98	1.29
1 - North - 2 - Grovehurst Road	104.4	546.65	1.30	1.0	8.59	0.51
1 - North - 4 - B2005 - link	0.4	3.10	0.31	0.7	3.54	0.41
2 - South - 2 - B2005 - link	5.0	11.53	0.84	1.2	4.21	0.55
2 - South - 3 - A249 offslip (SB)	246.2	2180.71	1.83	1.9	12.22	0.66
2 - South - 4 - Swale Way	18.3	79.77	0.99	504.9	1847.29	1.73
2 - South - 5 - Grovehurst Road	125.0	616.73	1.38	4.6	25.85	0.83
<b>2031 + WKN Operational + Cumulative Development</b>						
1 - North - 1 - A249 offslip (NB)	61.4	164.68	1.09	167.2	560.55	1.29
1 - North - 2 - Grovehurst Road	106.8	566.26	1.30	1.0	8.60	0.51
1 - North - 4 - B2005 - link	0.4	3.09	0.30	0.7	3.52	0.41
2 - South - 2 - B2005 - link	5.0	11.59	0.84	1.2	4.23	0.55
2 - South - 3 - A249 offslip (SB)	252.6	2294.94	1.84	2.0	12.33	0.67
2 - South - 4 - Swale Way	21.2	89.80	1.00	536.0	1965.84	1.77
2 - South - 5 - Grovehurst Road	132.5	653.97	1.39	4.7	26.08	0.83
<b>2031 + K3 and WKN Operational + Cumulative Development</b>						
1 - North - 1 - A249 offslip (NB)	61.6	164.89	1.09	175.1	586.64	1.30
1 - North - 2 - Grovehurst Road	107.1	567.67	1.30	1.0	8.64	0.51
1 - North - 4 - B2005 - link	0.4	3.08	0.30	0.7	3.52	0.41
2 - South - 2 - B2005 - link	5.0	11.61	0.84	1.2	4.26	0.55
2 - South - 3 - A249 offslip (SB)	253.2	2303.87	1.84	2.0	12.44	0.67
2 - South - 4 - Swale Way	21.8	91.68	1.01	537.7	1970.03	1.77
2 - South - 5 - Grovehurst Road	137.5	678.72	1.41	4.7	26.17	0.84

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

## File summary

### File Description

Title	(untitled)
Location	
Site number	
Date	26/01/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR\Ben.Dance
Description	

## Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

## Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓			0.85	36.00	20.00

## Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D9	2024 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D10	2024 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D15	2024 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D16	2024 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓

<b>D21</b>	2031 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
<b>D22</b>	2031 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
<b>D23</b>	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
<b>D24</b>	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
<b>D25</b>	2031 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
<b>D26</b>	2031 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
<b>D27</b>	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
<b>D28</b>	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
<b>D29</b>	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
<b>D30</b>	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
<b>D31</b>	2031 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
<b>D32</b>	2031 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
<b>D33</b>	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
<b>D34</b>	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

### Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
<b>A1</b>	✓	100.000	100.000

# 2017, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	6.71	A
2	South	Standard Roundabout	1, 2, 3, 4, 5	8.39	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Junction	Arm	Name	Description
1 - North	1	A249 offslip (NB)	
	2	Grovehurst Road	
	3	A249 onslip (NB)	
	4	B2005 - link	
2 - South	1	A249 onslip (SB)	
	2	B2005 - link	
	3	A249 offslip (SB)	
	4	Swale Way	
	5	Grovehurst Road	

### Roundabout Geometry

Junction	Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - North	1 - A249 offslip (NB)	7.93	9.50	56.8	13.3	45.0	27.0	
	2 - Grovehurst Road	3.66	9.50	25.3	50.9	45.0	34.0	
	3 - A249 onslip (NB)							✓
	4 - B2005 - link	4.01	8.00	13.3	20.6	45.0	41.0	
2 - South	1 - A249 onslip (SB)							✓
	2 - B2005 - link	3.66	7.00	13.1	260.8	36.3	35.0	
	3 - A249 offslip (SB)	8.26	9.50	36.8	24.9	39.2	44.0	
	4 - Swale Way	4.86	9.50	34.2	12.6	39.2	51.0	
	5 - Grovehurst Road	3.65	9.50	27.9	22.1	44.6	34.0	

### Slope / Intercept / Capacity

#### Arm Intercept Adjustments

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Junction	Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - North	1 - A249 offslip (NB)	Direct		-1050
	2 - Grovehurst Road	Direct		-400
	3 - A249 onslip (NB)			
	4 - B2005 - link	None		
2 - South	1 - A249 onslip (SB)			
	2 - B2005 - link	Direct		500
	3 - A249 offslip (SB)	Direct		-730
	4 - Swale Way	Direct		-575
	5 - Grovehurst Road	Direct		-550

### Roundabout Slope and Intercept used in model

Junction	Arm	Final slope	Final intercept (PCU/hr)
1 - North	1 - A249 offslip (NB)	0.838	1749
	2 - Grovehurst Road	0.722	1760
	3 - A249 onslip (NB)		
	4 - B2005 - link	0.630	1765
2 - South	1 - A249 onslip (SB)		
	2 - B2005 - link	0.660	2213
	3 - A249 offslip (SB)	0.838	2001
	4 - Swale Way	0.714	1629
	5 - Grovehurst Road	0.714	1597

The slope and intercept shown above include any corrections and adjustments.

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	669	100.000
	2 - Grovehurst Road		ONE HOUR	✓	398	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	518	100.000
	4 - Swale Way		ONE HOUR	✓	544	100.000
	5 - Grovehurst Road		ONE HOUR	✓	573	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From 1 - A249 offslip (NB)	0	42	0	627
	2 - Grovehurst Road	0	0	25	373
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	136	305	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	141	0	0	674	183
	3 - A249 offslip (SB)	1	18	0	325	174
	4 - Swale Way	285	194	0	0	65
	5 - Grovehurst Road	206	233	0	134	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	7	0	14
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	3	5	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	13	6
	3 - A249 offslip (SB)	0	6	0	5	4
	4 - Swale Way	32	7	0	0	6
	5 - Grovehurst Road	1	2	0	3	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.63	8.43	1.7	2.0	A	614	921
	2 - Grovehurst Road	0.48	7.71	0.9	3.5	A	365	548
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.29	3.00	0.4	1.5	A	408	612
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.57	4.38	1.3	1.8	A	917	1376
	3 - A249 offslip (SB)	0.69	14.29	2.2	7.9	B	475	713
	4 - Swale Way	0.60	8.84	1.5	2.2	A	499	749
	5 - Grovehurst Road	0.64	9.94	1.7	3.1	A	526	789

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	504	126	332	1285	0.392	501	0	0.0	0.6	4.580	A
	2 - Grovehurst Road	300	75	699	1161	0.258	298	134	0.0	0.3	4.166	A

	3 - A249 onslip (NB)			749				248				
	4 - B2005 - link	333	83	0	1690	0.197	332	749	0.0	0.2	2.649	A
2 - South	1 - A249 onslip (SB)			434				474				
	2 - B2005 - link	749	187	100	1952	0.384	747	333	0.0	0.6	2.981	A
	3 - A249 offslip (SB)	390	97	847	1172	0.333	388	0	0.0	0.5	4.583	A
	4 - Swale Way	410	102	387	1119	0.366	407	848	0.0	0.6	5.043	A
	5 - Grovehurst Road	431	108	478	1177	0.367	429	316	0.0	0.6	4.801	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	601	150	399	1233	0.488	600	0	0.6	0.9	5.676	A
	2 - Grovehurst Road	358	89	838	1053	0.340	357	161	0.3	0.5	5.169	A
	3 - A249 onslip (NB)			897				298				
	4 - B2005 - link	399	100	0	1690	0.236	399	897	0.2	0.3	2.786	A
2 - South	1 - A249 onslip (SB)			519				568				
	2 - B2005 - link	897	224	120	1939	0.463	896	399	0.6	0.9	3.449	A
	3 - A249 offslip (SB)	466	116	1017	1024	0.455	464	0	0.5	0.8	6.421	A
	4 - Swale Way	489	122	464	1071	0.457	488	1017	0.6	0.8	6.160	A
	5 - Grovehurst Road	515	129	573	1099	0.469	514	379	0.6	0.9	6.140	A

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	737	184	487	1165	0.632	734	0	0.9	1.7	8.284	A
	2 - Grovehurst Road	438	110	1024	909	0.482	437	196	0.5	0.9	7.602	A
	3 - A249 onslip (NB)			1097				364				
	4 - B2005 - link	487	122	0	1690	0.288	487	1097	0.3	0.4	2.991	A
2 - South	1 - A249 onslip (SB)			634				694				
	2 - B2005 - link	1097	274	147	1923	0.570	1095	488	0.9	1.3	4.339	A
	3 - A249 offslip (SB)	570	143	1242	827	0.690	565	0	0.8	2.1	13.495	B
	4 - Swale Way	599	150	566	1008	0.594	597	1241	0.8	1.4	8.691	A
	5 - Grovehurst Road	631	158	701	995	0.634	628	462	0.9	1.7	9.713	A

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	737	184	490	1163	0.633	736	0	1.7	1.7	8.430	A
	2 - Grovehurst Road	438	110	1029	905	0.484	438	197	0.9	0.9	7.709	A
	3 - A249 onslip (NB)			1101				366				
	4 - B2005 - link	490	122	0	1690	0.290	490	1101	0.4	0.4	2.997	A
2 - South	1 - A249 onslip (SB)			637				697				
	2 - B2005 - link	1101	275	148	1922	0.573	1101	490	1.3	1.3	4.382	A
	3 - A249 offslip (SB)	570	143	1248	821	0.695	570	0	2.1	2.2	14.292	B
	4 - Swale Way	599	150	570	1006	0.595	599	1249	1.4	1.5	8.840	A
	5 - Grovehurst Road	631	158	704	993	0.636	631	465	1.7	1.7	9.940	A

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	601	150	403	1230	0.489	604	0	1.7	1.0	5.779	A
	2 - Grovehurst Road	358	89	845	1048	0.341	359	162	0.9	0.5	5.242	A
	3 - A249 onslip (NB)			903				301				
	4 - B2005 - link	402	101	0	1690	0.238	403	903	0.4	0.3	2.797	A
2 - South	1 - A249 onslip (SB)			524				573				
	2 - B2005 - link	903	226	121	1939	0.466	905	402	1.3	0.9	3.488	A
	3 - A249 offslip (SB)	466	116	1026	1015	0.459	471	0	2.2	0.9	6.683	A
	4 - Swale Way	489	122	469	1068	0.458	491	1028	1.5	0.9	6.268	A
	5 - Grovehurst Road	515	129	578	1095	0.470	518	383	1.7	0.9	6.272	A

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	504	126	336	1282	0.393	505	0	1.0	0.7	4.644	A



1 - North	2 - Grovehurst Road	300	75	706	1156	0.259	300	135	0.5	0.4	4.211	A
	3 - A249 onslip (NB)			755				251				
	4 - B2005 - link	336	84	0	1690	0.199	336	755	0.3	0.2	2.658	A
	1 - A249 onslip (SB)			437				478				
2 - South	2 - B2005 - link	755	189	101	1951	0.387	756	336	0.9	0.6	3.013	A
	3 - A249 offslip (SB)	390	97	857	1163	0.335	391	0	0.9	0.5	4.673	A
	4 - Swale Way	410	102	391	1116	0.367	411	857	0.9	0.6	5.111	A
	5 - Grovehurst Road	431	108	483	1173	0.368	433	319	0.9	0.6	4.871	A

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	0.64	0.55	1.00	1.40	1.45			N/A	N/A
	2 - Grovehurst Road	0.35	0.00	0.00	0.35	0.35			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.24	0.00	0.00	0.24	0.24			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.62	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.50	0.00	0.00	0.50	0.50			N/A	N/A
	4 - Swale Way	0.57	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	0.57	0.55	1.00	1.40	1.45			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	0.94	0.08	0.85	1.60	1.96			N/A	N/A
	2 - Grovehurst Road	0.51	0.05	0.54	1.31	1.40			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.31	0.00	0.00	0.31	0.31			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.86	0.08	0.82	1.32	1.75			N/A	N/A
	3 - A249 offslip (SB)	0.82	0.06	0.70	1.44	1.88			N/A	N/A
	4 - Swale Way	0.83	0.09	0.86	1.49	1.50			N/A	N/A
	5 - Grovehurst Road	0.87	0.08	0.83	1.38	1.79			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.68	0.03	0.27	1.68	1.73			N/A	N/A
	2 - Grovehurst Road	0.92	0.03	0.26	0.92	0.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.31	0.03	0.26	1.31	1.31			N/A	N/A
	3 - A249 offslip (SB)	2.12	0.03	0.29	2.12	7.89			N/A	N/A
	4 - Swale Way	1.43	0.03	0.27	1.43	1.43			N/A	N/A
	5 - Grovehurst Road	1.68	0.03	0.27	1.68	2.69			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.70	0.03	0.27	1.70	1.79			N/A	N/A
	2 - Grovehurst Road	0.93	0.03	0.28	0.93	3.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.41	0.03	0.32	1.32	1.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.33	0.03	0.26	1.33	1.33			N/A	N/A
	3 - A249 offslip (SB)	2.21	0.03	0.28	2.21	7.57			N/A	N/A
	4 - Swale Way	1.45	0.03	0.27	1.45	2.17			N/A	N/A
	5 - Grovehurst Road	1.72	0.03	0.27	1.72	3.05			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	0.97	0.10	0.94	1.51	1.85			N/A	N/A
	2 - Grovehurst Road	0.52	0.06	0.62	1.32	1.41			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.31	0.00	0.00	0.31	0.31			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.88	0.52	0.99	1.41	1.46			N/A	N/A
	3 - A249 offslip (SB)	0.86	0.06	0.68	1.59	2.00			N/A	N/A
	4 - Swale Way	0.86	0.10	0.89	1.49	1.51			N/A	N/A
	5 - Grovehurst Road	0.90	0.08	0.87	1.41	1.80			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	0.65	0.05	0.50	1.46	1.49			N/A	N/A
	2 - Grovehurst Road	0.35	0.03	0.27	0.48	0.78			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.25	0.00	0.00	0.25	0.25			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.63	0.09	0.79	1.36	1.43			N/A	N/A
	3 - A249 offslip (SB)	0.51	0.04	0.36	1.44	1.63			N/A	N/A
	4 - Swale Way	0.58	0.05	0.49	1.36	1.48			N/A	N/A
	5 - Grovehurst Road	0.59	0.04	0.44	1.39	1.39			N/A	N/A

# 2017, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	12.50	B
2	South	Standard Roundabout	1, 2, 3, 4, 5	43.78	E

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	749	100.000
	2 - Grovehurst Road		ONE HOUR	✓	222	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	431	100.000
	4 - Swale Way		ONE HOUR	✓	989	100.000
	5 - Grovehurst Road		ONE HOUR	✓	528	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	569
		2 - Grovehurst Road	0	0	27	195
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	234	470	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	42	0	0	396	322
		3 - A249 offslip (SB)	1	27	0	187	216
		4 - Swale Way	509	351	0	0	129
		5 - Grovehurst Road	110	318	0	100	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	1	0	16
		2 - Grovehurst Road	0	0	0	1
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	3	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	22	1
		3 - A249 offslip (SB)	0	11	0	7	4
		4 - Swale Way	14	2	0	0	2
		5 - Grovehurst Road	0	2	0	3	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.84	21.72	4.7	23.6	C	687	1031
	2 - Grovehurst Road	0.29	5.88	0.4	1.3	A	204	306
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.43	3.67	0.8	2.1	A	640	960
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.44	3.37	0.8	2.1	A	702	1052
	3 - A249 offslip (SB)	0.45	6.19	0.8	3.3	A	395	593
	4 - Swale Way	1.04	106.63	34.1	91.4	F	908	1361
	5 - Grovehurst Road	0.71	14.92	2.3	8.6	B	485	727

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	564	141	520	1161	0.486	560	0	0.0	0.9	5.957	A
	2 - Grovehurst Road	167	42	773	1135	0.147	166	308	0.0	0.2	3.714	A
	3 - A249 onslip (NB)			572				368				
	4 - B2005 - link	522	130	0	1730	0.302	520	572	0.0	0.4	2.972	A
2 - South	1 - A249 onslip (SB)			595				494				
	2 - B2005 - link	573	143	75	1930	0.297	571	520	0.0	0.4	2.645	A
	3 - A249 offslip (SB)	324	81	646	1325	0.245	323	0	0.0	0.3	3.590	A
	4 - Swale Way	745	186	456	1197	0.622	738	513	0.0	1.6	7.747	A
	5 - Grovehurst Road	398	99	694	1039	0.383	395	500	0.0	0.6	5.570	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	673	168	624	1082	0.622	671	0	0.9	1.6	8.694	A
	2 - Grovehurst Road	200	50	926	1015	0.197	199	369	0.2	0.2	4.414	A
	3 - A249 onslip (NB)			685				441				
	4 - B2005 - link	624	156	0	1730	0.361	624	685	0.4	0.6	3.252	A
2 - South	1 - A249 onslip (SB)			712				591				
	2 - B2005 - link	686	171	90	1921	0.357	685	622	0.4	0.6	2.910	A
	3 - A249 offslip (SB)	387	97	775	1211	0.320	387	0	0.3	0.5	4.364	A
	4 - Swale Way	889	222	547	1135	0.783	882	614	1.6	3.4	13.833	B
	5 - Grovehurst Road	475	119	830	935	0.507	473	599	0.6	1.0	7.759	A

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	825	206	740	994	0.830	814	0	1.6	4.3	18.942	C
	2 - Grovehurst Road	244	61	1112	867	0.282	244	441	0.2	0.4	5.770	A
	3 - A249 onslip (NB)			832				523				
	4 - B2005 - link	740	185	0	1730	0.428	740	832	0.6	0.7	3.634	A
2 - South	1 - A249 onslip (SB)			847				691				
	2 - B2005 - link	833	208	109	1909	0.437	833	738	0.6	0.8	3.340	A
	3 - A249 offslip (SB)	475	119	942	1064	0.446	473	0	0.5	0.8	6.078	A
	4 - Swale Way	1089	272	667	1054	1.033	1017	748	3.4	21.4	56.760	F
	5 - Grovehurst Road	581	145	961	836	0.696	577	723	1.0	2.2	13.662	B

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	825	206	750	986	0.837	823	0	4.3	4.7	21.724	C
	2 - Grovehurst Road	244	61	1126	856	0.286	244	447	0.4	0.4	5.885	A
	3 - A249 onslip (NB)			840				531				
	4 - B2005 - link	751	188	0	1730	0.434	750	840	0.7	0.8	3.675	A
2 - South	1 - A249 onslip (SB)			858				703				
	2 - B2005 - link	841	210	110	1909	0.441	841	748	0.8	0.8	3.371	A
	3 - A249 offslip (SB)	475	119	951	1056	0.449	474	0	0.8	0.8	6.191	A
	4 - Swale Way	1089	272	671	1051	1.036	1038	754	21.4	34.1	106.632	F
	5 - Grovehurst Road	581	145	980	821	0.708	581	730	2.2	2.3	14.919	B

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	673	168	673	1044	0.645	685	0	4.7	1.9	10.316	B
	2 - Grovehurst Road	200	50	970	981	0.203	200	388	0.4	0.3	4.613	A
	3 - A249 onslip (NB)			696				474				
	4 - B2005 - link	673	168	0	1730	0.389	673	696	0.8	0.6	3.410	A
	1 - A249 onslip (SB)			761				658				

2 - South	2 - B2005 - link	697	174	91	1921	0.363	698	671	0.8	0.6	2.946	A
	3 - A249 offslip (SB)	387	97	789	1199	0.323	389	0	0.8	0.5	4.453	A
	4 - Swale Way	889	222	554	1130	0.787	1009	623	34.1	4.1	46.441	E
	5 - Grovehurst Road	475	119	941	851	0.558	479	622	2.3	1.3	9.791	A

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	564	141	532	1152	0.489	567	0	1.9	1.0	6.194	A
	2 - Grovehurst Road	167	42	786	1125	0.149	167	313	0.3	0.2	3.762	A
	3 - A249 onslip (NB)			578				375				
	4 - B2005 - link	531	133	0	1730	0.307	532	578	0.6	0.4	3.008	A
2 - South	1 - A249 onslip (SB)			605				504				
	2 - B2005 - link	579	145	76	1930	0.300	580	529	0.6	0.4	2.669	A
	3 - A249 offslip (SB)	324	81	656	1316	0.247	325	0	0.5	0.3	3.637	A
	4 - Swale Way	745	186	462	1193	0.624	754	519	4.1	1.7	8.380	A
	5 - Grovehurst Road	398	99	709	1028	0.387	400	507	1.3	0.6	5.759	A

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	0.93	0.55	1.00	1.40	1.45			N/A	N/A
	2 - Grovehurst Road	0.17	0.00	0.00	0.17	0.17			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.42	0.00	0.00	0.42	0.42			N/A	N/A
	3 - A249 offslip (SB)	0.32	0.00	0.00	0.32	0.32			N/A	N/A
	4 - Swale Way	1.61	0.26	1.40	2.62	3.15			N/A	N/A
	5 - Grovehurst Road	0.61	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.61	0.05	0.66	3.98	6.02			N/A	N/A
	2 - Grovehurst Road	0.24	0.00	0.00	0.24	0.24			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.56	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.55	0.08	0.75	1.35	1.43			N/A	N/A
	3 - A249 offslip (SB)	0.47	0.00	0.00	0.47	0.47			N/A	N/A
	4 - Swale Way	3.38	0.06	0.92	9.34	14.65			N/A	N/A
	5 - Grovehurst Road	1.01	0.07	0.84	1.83	2.49			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.34	0.04	0.36	10.03	23.62			N/A	N/A
	2 - Grovehurst Road	0.39	0.03	0.25	0.46	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.74	0.03	0.25	0.74	0.74			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.77	0.03	0.25	0.77	0.77			N/A	N/A
	3 - A249 offslip (SB)	0.80	0.03	0.26	0.80	0.80			N/A	N/A
	4 - Swale Way	21.40	1.44	15.74	45.68	57.99			N/A	N/A
	5 - Grovehurst Road	2.18	0.03	0.29	2.18	8.56			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	4.74	0.03	0.31	5.41	22.27			N/A	N/A
	2 - Grovehurst Road	0.40	0.03	0.33	1.25	1.25			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.76	0.03	0.27	0.76	2.05			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.78	0.03	0.27	0.78	2.13			N/A	N/A
	3 - A249 offslip (SB)	0.81	0.03	0.28	1.06	3.32			N/A	N/A
	4 - Swale Way	34.05	2.82	25.62	72.31	91.41			N/A	N/A
	5 - Grovehurst Road	2.34	0.03	0.28	2.34	7.28			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.87	0.05	0.50	4.91	7.75			N/A	N/A
	2 - Grovehurst Road	0.26	0.00	0.00	0.26	0.26			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.64	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.57	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.48	0.00	0.00	0.48	0.48			N/A	N/A
	4 - Swale Way	4.15	0.04	0.41	11.30	21.73			N/A	N/A
	5 - Grovehurst Road	1.29	0.09	1.05	2.42	3.14			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	0.97	0.03	0.33	2.11	4.82			N/A	N/A
	2 - Grovehurst Road	0.18	0.00	0.00	0.18	0.18			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.44	0.00	0.00	0.44	0.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.43	0.00	0.00	0.43	0.43			N/A	N/A
	3 - A249 offslip (SB)	0.33	0.00	0.00	0.33	0.33			N/A	N/A
	4 - Swale Way	1.70	0.03	0.29	1.70	6.48			N/A	N/A
	5 - Grovehurst Road	0.64	0.04	0.38	1.40	2.21			N/A	N/A

# 2024, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	16.79	C
2	South	Standard Roundabout	1, 2, 3, 4, 5	61.90	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	861	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	689	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000



## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	819
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	147	327	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	141	0	0	908	183
		3 - A249 offslip (SB)	1	18	0	377	174
		4 - Swale Way	386	226	0	0	77
		5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	7	0	18
		2 - Grovehurst Road	0	0	8	3
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	7	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	16	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	38	10	0	0	9
		5 - Grovehurst Road	1	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.87	23.46	5.9	29.6	C	790	1185
	2 - Grovehurst Road	0.70	17.12	2.2	9.0	C	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.31	3.15	0.5	1.9	A	437	655
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.74	7.34	2.7	5.4	A	1134	1701
	3 - A249 offslip (SB)	1.22	292.82	57.3	97.2	F	523	785
	4 - Swale Way	0.77	15.85	3.2	15.4	C	632	948
	5 - Grovehurst Road	0.80	21.06	3.8	18.9	C	561	841

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	648	162	355	1221	0.531	644	0	0.0	1.1	6.196	A
	2 - Grovehurst Road	331	83	857	1016	0.326	329	142	0.0	0.5	5.230	A
	3 - A249 onslip (NB)			923				264				
	4 - B2005 - link	356	89	0	1664	0.214	355	923	0.0	0.3	2.748	A
2 - South	1 - A249 onslip (SB)			485				549				
	2 - B2005 - link	925	231	129	1885	0.491	921	357	0.0	1.0	3.719	A
	3 - A249 offslip (SB)	429	107	1050	949	0.452	426	0	0.0	0.8	6.842	A
	4 - Swale Way	519	130	386	1069	0.485	515	1089	0.0	0.9	6.454	A
	5 - Grovehurst Road	460	115	577	1070	0.430	457	324	0.0	0.7	5.844	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	774	194	426	1167	0.663	771	0	1.1	1.9	9.022	A
	2 - Grovehurst Road	396	99	1027	879	0.450	394	170	0.5	0.8	7.405	A
	3 - A249 onslip (NB)			1105				317				
	4 - B2005 - link	427	107	0	1664	0.256	426	1105	0.3	0.3	2.909	A
2 - South	1 - A249 onslip (SB)			581				658				
	2 - B2005 - link	1108	277	154	1870	0.592	1106	427	1.0	1.4	4.702	A
	3 - A249 offslip (SB)	512	128	1260	766	0.669	508	0	0.8	1.9	13.725	B
	4 - Swale Way	619	155	463	1024	0.605	617	1305	0.9	1.5	8.792	A
	5 - Grovehurst Road	549	137	692	972	0.565	547	388	0.7	1.3	8.423	A

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	948	237	515	1099	0.862	934	0	1.9	5.4	20.277	C
	2 - Grovehurst Road	484	121	1244	705	0.687	479	205	0.8	2.1	15.612	C
	3 - A249 onslip (NB)			1341				383				
	4 - B2005 - link	516	129	0	1664	0.310	515	1341	0.3	0.4	3.135	A
2 - South	1 - A249 onslip (SB)			703				799				
	2 - B2005 - link	1344	336	187	1850	0.726	1339	516	1.4	2.6	6.989	A
	3 - A249 offslip (SB)	628	157	1526	534	1.175	521	0	1.9	28.7	124.073	F
	4 - Swale Way	759	190	528	986	0.770	752	1518	1.5	3.1	15.000	C
	5 - Grovehurst Road	673	168	839	847	0.795	664	442	1.3	3.5	18.830	C

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	948	237	520	1095	0.865	946	0	5.4	5.9	23.458	C
	2 - Grovehurst Road	484	121	1259	693	0.699	484	208	2.1	2.2	17.124	C
	3 - A249 onslip (NB)			1356				386				
	4 - B2005 - link	520	130	0	1664	0.313	520	1356	0.4	0.5	3.148	A
2 - South	1 - A249 onslip (SB)			710				808				
	2 - B2005 - link	1360	340	189	1848	0.736	1359	521	2.6	2.7	7.344	A
	3 - A249 offslip (SB)	628	157	1548	515	1.220	513	0	28.7	57.3	292.817	F
	4 - Swale Way	759	190	531	984	0.771	758	1530	3.1	3.2	15.848	C
	5 - Grovehurst Road	673	168	846	840	0.800	672	443	3.5	3.8	21.057	C

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	774	194	441	1156	0.670	789	0	5.9	2.1	10.198	B
	2 - Grovehurst Road	396	99	1055	857	0.461	401	175	2.2	0.9	7.981	A
	3 - A249 onslip (NB)			1129				327				
	4 - B2005 - link	440	110	0	1664	0.265	441	1129	0.5	0.4	2.944	A
	1 - A249 onslip (SB)			598				670				

2 - South	2 - B2005 - link	1132	283	157	1868	0.606	1136	441	2.7	1.6	4.955	A
	3 - A249 offslip (SB)	512	128	1294	736	0.696	724	0	57.3	4.4	161.524	F
	4 - Swale Way	619	155	544	976	0.634	625	1474	3.2	1.8	10.418	B
	5 - Grovehurst Road	549	137	710	958	0.573	559	460	3.8	1.4	9.219	A

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	648	162	361	1216	0.533	652	0	2.1	1.2	6.425	A
	2 - Grovehurst Road	331	83	869	1006	0.329	333	144	0.9	0.5	5.358	A
	3 - A249 onslip (NB)			934				268				
	4 - B2005 - link	361	90	0	1664	0.217	361	934	0.4	0.3	2.764	A
2 - South	1 - A249 onslip (SB)			492				557				
	2 - B2005 - link	936	234	130	1884	0.497	939	362	1.6	1.0	3.817	A
	3 - A249 offslip (SB)	429	107	1069	932	0.460	443	0	4.4	0.9	7.566	A
	4 - Swale Way	519	130	397	1063	0.488	522	1115	1.8	1.0	6.691	A
	5 - Grovehurst Road	460	115	586	1063	0.433	462	333	1.4	0.8	6.019	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.12	0.55	1.02	1.44	1.49			N/A	N/A
	2 - Grovehurst Road	0.48	0.00	0.00	0.48	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.96	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.81	0.05	0.59	1.55	2.00			N/A	N/A
	4 - Swale Way	0.93	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	0.75	0.55	1.00	1.40	1.45			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.92	0.05	0.63	4.97	7.71			N/A	N/A
	2 - Grovehurst Road	0.81	0.06	0.73	1.29	1.76			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.44	0.05	0.56	3.55	5.37			N/A	N/A
	3 - A249 offslip (SB)	1.93	0.04	0.39	5.13	9.57			N/A	N/A
	4 - Swale Way	1.49	0.06	0.89	3.43	4.86			N/A	N/A
	5 - Grovehurst Road	1.27	0.06	0.68	2.89	4.24			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	5.39	0.04	0.40	14.02	29.14			N/A	N/A
	2 - Grovehurst Road	2.08	0.03	0.29	2.08	8.62			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.58	0.03	0.27	2.58	4.65			N/A	N/A
	3 - A249 offslip (SB)	28.70	9.41	25.90	47.32	54.97			N/A	N/A
	4 - Swale Way	3.12	0.03	0.31	4.28	15.35			N/A	N/A
	5 - Grovehurst Road	3.51	0.03	0.34	7.17	18.88			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	5.85	0.03	0.32	8.82	29.63			N/A	N/A
	2 - Grovehurst Road	2.23	0.03	0.29	2.23	9.00			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.31	1.38	1.88			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.72	0.03	0.27	2.72	2.72			N/A	N/A
	3 - A249 offslip (SB)	57.28	25.95	53.99	86.24	97.22			N/A	N/A
	4 - Swale Way	3.24	0.03	0.28	3.24	9.84			N/A	N/A
	5 - Grovehurst Road	3.77	0.03	0.30	3.77	16.88			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.09	0.04	0.44	5.71	9.63			N/A	N/A
	2 - Grovehurst Road	0.87	0.06	0.67	1.64	2.15			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.56	0.10	1.19	3.00	4.02			N/A	N/A
	3 - A249 offslip (SB)	4.38	0.05	0.50	12.50	21.20			N/A	N/A
	4 - Swale Way	1.79	0.06	0.92	4.33	6.31			N/A	N/A
	5 - Grovehurst Road	1.37	0.05	0.47	3.46	5.37			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.16	0.03	0.32	2.42	5.88			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.35	1.44	1.65			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.00	0.05	0.50	2.15	3.18			N/A	N/A
	3 - A249 offslip (SB)	0.87	0.03	0.26	0.87	0.87			N/A	N/A
	4 - Swale Way	0.97	0.04	0.37	2.39	4.30			N/A	N/A
	5 - Grovehurst Road	0.77	0.03	0.33	1.74	3.63			N/A	N/A

# 2024, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	26.30	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	296.86	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	825	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	443	100.000
	4 - Swale Way		ONE HOUR	✓	1276	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From				
	1 - A249 offslip (NB)	0	180	0	645
	2 - Grovehurst Road	0	0	27	200
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	262	522	0

### Demand (Veh/hr)

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
2 - South	From					
	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	477	322
	3 - A249 offslip (SB)	1	27	0	199	216
	4 - Swale Way	685	432	0	0	159
5 - Grovehurst Road	110	318	0	106	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From				
	1 - A249 offslip (NB)	0	1	0	21
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	4	0

### Heavy Vehicle Percentages

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
2 - South	From					
	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	28	1
	3 - A249 offslip (SB)	0	11	0	8	4
	4 - Swale Way	18	3	0	0	3
5 - Grovehurst Road	0	2	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.94	48.69	11.5	57.5	E	757	1136
	2 - Grovehurst Road	0.32	6.87	0.5	1.9	A	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.42	3.63	0.7	1.5	A	674	1011
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.50	3.96	1.0	1.5	A	774	1161
	3 - A249 offslip (SB)	0.52	7.94	1.1	3.7	A	407	610
	4 - Swale Way	1.37	703.33	224.0	224.0	F	1171	1756
	5 - Grovehurst Road	0.73	16.62	2.6	12.4	C	490	735

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	621	155	576	1075	0.578	616	0	0.0	1.3	7.756	A
	2 - Grovehurst Road	171	43	865	1042	0.164	170	327	0.0	0.2	4.125	A
	3 - A249 onslip (NB)			631				404				
	4 - B2005 - link	578	145	0	1719	0.336	576	631	0.0	0.5	3.146	A
2 - South	1 - A249 onslip (SB)			656				621				
	2 - B2005 - link	631	158	79	1855	0.340	629	577	0.0	0.5	2.931	A
	3 - A249 offslip (SB)	334	83	708	1242	0.269	332	0	0.0	0.4	3.950	A
	4 - Swale Way	961	240	455	1167	0.823	944	585	0.0	4.2	15.169	C
	5 - Grovehurst Road	402	101	878	878	0.458	399	520	0.0	0.8	7.458	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	742	185	672	1004	0.739	736	0	1.3	2.7	13.189	B
	2 - Grovehurst Road	204	51	1023	913	0.224	204	385	0.2	0.3	5.074	A
	3 - A249 onslip (NB)			755				472				
	4 - B2005 - link	673	168	0	1719	0.391	672	755	0.5	0.6	3.438	A
2 - South	1 - A249 onslip (SB)			766				712				
	2 - B2005 - link	754	189	95	1846	0.409	754	671	0.5	0.7	3.295	A
	3 - A249 offslip (SB)	398	100	848	1114	0.357	398	0	0.4	0.6	5.018	A
	4 - Swale Way	1147	287	545	1107	1.036	1072	701	4.2	23.0	58.576	F
	5 - Grovehurst Road	480	120	1001	782	0.614	477	616	0.8	1.5	11.691	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	908	227	727	963	0.943	881	0	2.7	9.5	35.451	E
	2 - Grovehurst Road	250	62	1173	788	0.317	249	435	0.3	0.5	6.677	A
	3 - A249 onslip (NB)			908				514				
	4 - B2005 - link	727	182	0	1719	0.423	727	908	0.6	0.7	3.630	A
2 - South	1 - A249 onslip (SB)			842				720				
	2 - B2005 - link	907	227	116	1833	0.495	906	726	0.7	1.0	3.876	A
	3 - A249 offslip (SB)	488	122	1021	957	0.510	486	0	0.6	1.0	7.607	A
	4 - Swale Way	1405	351	660	1032	1.362	1030	848	23.0	116.6	253.022	F
	5 - Grovehurst Road	588	147	978	801	0.734	584	712	1.5	2.6	16.228	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	908	227	728	962	0.944	900	0	9.5	11.5	48.690	E
	2 - Grovehurst Road	250	62	1189	774	0.323	250	440	0.5	0.5	6.870	A
	3 - A249 onslip (NB)			924				515				
	4 - B2005 - link	728	182	0	1719	0.424	728	924	0.7	0.7	3.634	A
2 - South	1 - A249 onslip (SB)			844				719				
	2 - B2005 - link	923	231	117	1833	0.504	923	727	1.0	1.0	3.957	A
	3 - A249 offslip (SB)	488	122	1040	941	0.519	488	0	1.0	1.1	7.942	A
	4 - Swale Way	1405	351	668	1026	1.369	1026	859	116.6	211.3	566.743	F
	5 - Grovehurst Road	588	147	975	804	0.732	588	719	2.6	2.6	16.624	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	742	185	685	994	0.746	775	0	11.5	3.1	18.591	C
	2 - Grovehurst Road	204	51	1062	880	0.232	205	398	0.5	0.3	5.337	A
	3 - A249 onslip (NB)			786				481				
	4 - B2005 - link	685	171	0	1719	0.398	685	786	0.7	0.7	3.482	A
	1 - A249 onslip (SB)			780				728				

2 - South	2 - B2005 - link	787	197	96	1845	0.427	788	684	1.0	0.7	3.408	A
	3 - A249 offslip (SB)	398	100	884	1082	0.368	400	0	1.1	0.6	5.296	A
	4 - Swale Way	1147	287	561	1097	1.046	1096	723	211.3	224.0	703.325	F
	5 - Grovehurst Road	480	120	1024	764	0.628	484	633	2.6	1.7	12.983	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	621	155	654	1017	0.611	627	0	3.1	1.6	9.369	A
	2 - Grovehurst Road	171	43	926	996	0.172	171	355	0.3	0.2	4.369	A
	3 - A249 onslip (NB)			641				456				
	4 - B2005 - link	654	164	0	1719	0.381	654	641	0.7	0.6	3.384	A
2 - South	1 - A249 onslip (SB)			733				737				
	2 - B2005 - link	641	160	80	1854	0.346	642	653	0.7	0.5	2.973	A
	3 - A249 offslip (SB)	334	83	722	1229	0.271	334	0	0.6	0.4	4.028	A
	4 - Swale Way	961	240	462	1162	0.827	1157	594	224.0	175.0	621.329	F
	5 - Grovehurst Road	402	101	1066	731	0.550	404	553	1.7	1.3	11.073	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.34	0.55	1.25	1.77	1.93			N/A	N/A
	2 - Grovehurst Road	0.20	0.00	0.00	0.20	0.20			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	4 - Swale Way	4.23	0.03	0.32	6.32	21.34			N/A	N/A
	5 - Grovehurst Road	0.83	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.68	0.06	0.98	7.13	10.83			N/A	N/A
	2 - Grovehurst Road	0.29	0.00	0.00	0.29	0.29			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.64	0.21	0.93	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.69	0.10	0.84	1.37	1.44			N/A	N/A
	3 - A249 offslip (SB)	0.55	0.06	0.69	1.34	1.42			N/A	N/A
	4 - Swale Way	22.97	0.59	13.71	55.76	74.83			N/A	N/A
	5 - Grovehurst Road	1.54	0.09	1.14	3.07	4.16			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	9.54	0.09	2.39	26.93	40.78			N/A	N/A
	2 - Grovehurst Road	0.46	0.03	0.25	0.46	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.73	0.03	0.25	0.73	0.73			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.97	0.03	0.25	0.97	0.97			N/A	N/A
	3 - A249 offslip (SB)	1.02	0.03	0.26	1.02	1.02			N/A	N/A
	4 - Swale Way	116.58	65.58	112.68	162.06	178.27			N/A	N/A
	5 - Grovehurst Road	2.59	0.03	0.31	3.16	12.36			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker



1 - North	1 - A249 offslip (NB)	11.52	0.06	1.23	33.69	57.50			N/A	N/A
	2 - Grovehurst Road	0.47	0.03	0.32	1.43	1.89			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.73	0.03	0.27	0.73	1.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.01	0.03	0.27	1.01	1.50			N/A	N/A
	3 - A249 offslip (SB)	1.06	0.03	0.28	1.06	3.69			N/A	N/A
	4 - Swale Way	211.29	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.65	0.03	0.28	2.65	6.82			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.12	0.04	0.41	8.56	15.86			N/A	N/A
	2 - Grovehurst Road	0.30	0.00	0.00	0.30	0.30			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.67	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.75	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.59	0.09	0.82	1.36	1.43			N/A	N/A
	4 - Swale Way	224.03	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.75	0.05	0.70	4.42	6.67			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.61	0.03	0.31	2.64	8.17			N/A	N/A
	2 - Grovehurst Road	0.21	0.00	0.00	0.21	0.21			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.62	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.37	0.03	0.30	0.85	1.17			N/A	N/A
	4 - Swale Way	174.95	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.25	0.05	0.46	3.08	4.85			N/A	N/A

# 2024 + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	25.77	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	94.74	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	904	100.000
	2 - Grovehurst Road		ONE HOUR	✓	446	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	593	100.000
	4 - Swale Way		ONE HOUR	✓	690	100.000
	5 - Grovehurst Road		ONE HOUR	✓	736	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	45	0	859
		2 - Grovehurst Road	0	0	25	421
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	151	366	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	144	0	0	908	225
		3 - A249 offslip (SB)	1	18	0	377	197
		4 - Swale Way	387	226	0	0	77
		5 - Grovehurst Road	287	277	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	13	0	17
		2 - Grovehurst Road	0	0	8	4
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	6	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	16	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	39	10	0	0	9
		5 - Grovehurst Road	1	1	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.93	38.08	9.9	53.0	E	830	1244
	2 - Grovehurst Road	0.77	24.32	3.2	15.6	C	409	614
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.34	3.23	0.5	2.3	A	476	714
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.76	8.00	3.0	6.6	A	1174	1761
	3 - A249 offslip (SB)	1.36	432.09	84.1	124.7	F	544	816
	4 - Swale Way	0.80	18.81	3.8	19.6	C	633	950
	5 - Grovehurst Road	0.97	63.48	13.7	60.3	F	675	1013

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	681	170	387	1205	0.565	675	0	0.0	1.3	6.732	A
	2 - Grovehurst Road	336	84	916	967	0.347	334	147	0.0	0.5	5.663	A
	3 - A249 onslip (NB)			957				293				
	4 - B2005 - link	388	97	0	1674	0.232	387	957	0.0	0.3	2.794	A
2 - South	1 - A249 onslip (SB)			518				612				
	2 - B2005 - link	957	239	129	1886	0.508	953	389	0.0	1.0	3.844	A
	3 - A249 offslip (SB)	446	112	1082	922	0.484	443	0	0.0	0.9	7.454	A
	4 - Swale Way	519	130	437	1033	0.503	515	1088	0.0	1.0	6.901	A
	5 - Grovehurst Road	554	139	580	1070	0.518	550	373	0.0	1.1	6.866	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	813	203	464	1147	0.709	808	0	1.3	2.3	10.505	B
	2 - Grovehurst Road	401	100	1097	825	0.486	399	176	0.5	0.9	8.431	A
	3 - A249 onslip (NB)			1145				351				
	4 - B2005 - link	464	116	0	1674	0.277	464	1145	0.3	0.4	2.975	A
2 - South	1 - A249 onslip (SB)			619				733				
	2 - B2005 - link	1146	286	154	1870	0.613	1144	466	1.0	1.6	4.939	A
	3 - A249 offslip (SB)	533	133	1297	734	0.726	527	0	0.9	2.5	16.897	C
	4 - Swale Way	620	155	522	983	0.631	618	1302	1.0	1.7	9.787	A
	5 - Grovehurst Road	662	165	695	971	0.681	658	445	1.1	2.1	11.341	B

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	995	249	552	1080	0.922	972	0	2.3	8.3	28.483	D
	2 - Grovehurst Road	491	123	1314	653	0.752	484	210	0.9	2.8	20.421	C
	3 - A249 onslip (NB)			1380				418				
	4 - B2005 - link	553	138	0	1674	0.330	552	1380	0.4	0.5	3.209	A
2 - South	1 - A249 onslip (SB)			736				881				
	2 - B2005 - link	1380	345	182	1853	0.745	1375	554	1.6	2.8	7.450	A
	3 - A249 offslip (SB)	653	163	1557	507	1.287	500	0	2.5	40.8	174.701	F
	4 - Swale Way	760	190	579	949	0.801	752	1477	1.7	3.7	17.559	C
	5 - Grovehurst Road	810	203	839	846	0.958	778	492	2.1	10.3	40.961	E

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	995	249	561	1073	0.927	989	0	8.3	9.9	38.084	E
	2 - Grovehurst Road	491	123	1337	635	0.773	490	213	2.8	3.2	24.318	C
	3 - A249 onslip (NB)			1402				425				
	4 - B2005 - link	561	140	0	1674	0.335	561	1402	0.5	0.5	3.234	A
2 - South	1 - A249 onslip (SB)			749				895				
	2 - B2005 - link	1403	351	186	1850	0.758	1402	563	2.8	3.0	7.996	A
	3 - A249 offslip (SB)	653	163	1588	480	1.359	480	0	40.8	84.1	432.093	F
	4 - Swale Way	760	190	580	949	0.801	759	1488	3.7	3.8	18.813	C
	5 - Grovehurst Road	810	203	848	838	0.967	797	491	10.3	13.7	63.477	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	813	203	490	1127	0.721	841	0	9.9	2.7	13.756	B
	2 - Grovehurst Road	401	100	1147	786	0.510	409	185	3.2	1.1	9.768	A
	3 - A249 onslip (NB)			1186				370				
	4 - B2005 - link	490	123	0	1674	0.293	490	1186	0.5	0.4	3.042	A
	1 - A249 onslip (SB)			657				763				

2 - South	2 - B2005 - link	1187	297	165	1863	0.637	1192	492	3.0	1.8	5.403	A
	3 - A249 offslip (SB)	533	133	1357	682	0.782	674	0	84.1	48.8	345.623	F
	4 - Swale Way	620	155	590	943	0.658	628	1441	3.8	2.0	11.674	B
	5 - Grovehurst Road	662	165	714	956	0.692	707	504	13.7	2.4	16.956	C

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	681	170	400	1195	0.570	686	0	2.7	1.3	7.148	A
	2 - Grovehurst Road	336	84	935	952	0.353	338	151	1.1	0.6	5.880	A
	3 - A249 onslip (NB)			971				302				
	4 - B2005 - link	400	100	0	1674	0.239	400	971	0.4	0.3	2.826	A
2 - South	1 - A249 onslip (SB)			532				622				
	2 - B2005 - link	971	243	131	1884	0.516	974	401	1.8	1.1	3.969	A
	3 - A249 offslip (SB)	446	112	1105	902	0.495	638	0	48.8	1.0	30.534	D
	4 - Swale Way	519	130	514	988	0.526	523	1229	2.0	1.1	7.800	A
	5 - Grovehurst Road	554	139	595	1058	0.524	559	442	2.4	1.1	7.289	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.28	0.56	1.18	1.64	1.83			N/A	N/A
	2 - Grovehurst Road	0.53	0.53	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.02	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.92	0.04	0.42	2.15	3.45			N/A	N/A
	4 - Swale Way	1.00	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	1.06	0.51	1.05	1.21	1.61			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.34	0.05	0.67	6.31	9.88			N/A	N/A
	2 - Grovehurst Road	0.93	0.06	0.69	1.79	2.49			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.56	0.05	0.53	3.93	6.05			N/A	N/A
	3 - A249 offslip (SB)	2.48	0.04	0.40	6.73	12.48			N/A	N/A
	4 - Swale Way	1.66	0.06	0.91	3.93	5.72			N/A	N/A
	5 - Grovehurst Road	2.06	0.05	0.49	5.53	8.79			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	8.27	0.06	1.36	24.03	39.22			N/A	N/A
	2 - Grovehurst Road	2.78	0.03	0.32	5.01	14.58			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.49	0.03	0.25	0.49	0.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.83	0.03	0.28	2.83	6.61			N/A	N/A
	3 - A249 offslip (SB)	40.81	18.73	38.41	60.85	68.50			N/A	N/A
	4 - Swale Way	3.67	0.03	0.33	7.15	19.61			N/A	N/A
	5 - Grovehurst Road	10.26	0.13	3.83	27.69	40.00			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	9.85	0.05	0.46	27.39	52.96			N/A	N/A
	2 - Grovehurst Road	3.16	0.03	0.31	4.36	15.56			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.03	0.30	1.38	2.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	3.05	0.03	0.27	3.05	3.05			N/A	N/A
	3 - A249 offslip (SB)	84.08	49.64	81.50	114.11	124.72			N/A	N/A
	4 - Swale Way	3.83	0.03	0.29	3.83	14.75			N/A	N/A
	5 - Grovehurst Road	13.71	0.09	3.25	39.35	60.28			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.71	0.04	0.43	7.48	13.34			N/A	N/A
	2 - Grovehurst Road	1.06	0.05	0.55	2.37	3.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.42	0.00	0.00	0.42	0.42			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.78	0.10	1.27	3.71	4.94			N/A	N/A
	3 - A249 offslip (SB)	48.85	28.76	47.16	65.94	72.03			N/A	N/A
	4 - Swale Way	1.99	0.05	0.71	5.16	7.90			N/A	N/A
	5 - Grovehurst Road	2.36	0.04	0.38	6.21	12.09			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.35	0.03	0.31	2.01	6.71			N/A	N/A
	2 - Grovehurst Road	0.55	0.03	0.33	1.14	2.34			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.32	0.00	0.00	0.32	0.32			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.07	0.05	0.47	2.52	3.80			N/A	N/A
	3 - A249 offslip (SB)	1.01	0.03	0.26	1.01	1.01			N/A	N/A
	4 - Swale Way	1.13	0.04	0.36	2.82	5.33			N/A	N/A
	5 - Grovehurst Road	1.12	0.03	0.29	1.32	4.69			N/A	N/A

# 2024 + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	52.11	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	397.33	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	896	100.000
	2 - Grovehurst Road		ONE HOUR	✓	235	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	482	100.000
	4 - Swale Way		ONE HOUR	✓	1276	100.000
	5 - Grovehurst Road		ONE HOUR	✓	595	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	183	0	713
		2 - Grovehurst Road	0	0	27	208
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	264	541	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	45	0	0	479	393
		3 - A249 offslip (SB)	1	27	0	199	255
		4 - Swale Way	685	432	0	0	159
	5 - Grovehurst Road	150	339	0	106	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	2	0	20
		2 - Grovehurst Road	0	0	0	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	3	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	9	0	0	28	2
		3 - A249 offslip (SB)	0	11	0	8	3
		4 - Swale Way	18	3	0	0	3
	5 - Grovehurst Road	1	2	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.02	97.38	27.3	82.4	F	822	1233
	2 - Grovehurst Road	0.36	7.68	0.5	2.5	A	216	323
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.42	3.60	0.7	1.5	A	678	1017
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.54	4.21	1.1	1.5	A	844	1266
	3 - A249 offslip (SB)	0.59	9.89	1.4	4.1	A	442	663
	4 - Swale Way	1.48	994.73	297.3	297.3	F	1171	1756
	5 - Grovehurst Road	0.77	18.18	3.2	16.3	C	546	819



## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	675	169	594	1068	0.632	668	0	0.0	1.7	8.867	A
	2 - Grovehurst Road	177	44	930	985	0.180	176	331	0.0	0.2	4.443	A
	3 - A249 onslip (NB)			687				419				
	4 - B2005 - link	596	149	0	1730	0.344	594	687	0.0	0.5	3.164	A
2 - South	1 - A249 onslip (SB)			670				650				
	2 - B2005 - link	687	172	79	1862	0.369	685	591	0.0	0.6	3.052	A
	3 - A249 offslip (SB)	363	91	764	1201	0.302	361	0	0.0	0.4	4.280	A
	4 - Swale Way	961	240	539	1109	0.866	939	586	0.0	5.5	19.167	C
	5 - Grovehurst Road	448	112	876	877	0.510	444	602	0.0	1.0	8.226	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	805	201	678	1005	0.801	797	0	1.7	3.7	16.679	C
	2 - Grovehurst Road	211	53	1090	856	0.247	211	385	0.2	0.3	5.575	A
	3 - A249 onslip (NB)			821				480				
	4 - B2005 - link	679	170	0	1730	0.392	678	821	0.5	0.6	3.421	A
2 - South	1 - A249 onslip (SB)			768				724				
	2 - B2005 - link	821	205	95	1853	0.443	820	673	0.6	0.8	3.483	A
	3 - A249 offslip (SB)	433	108	915	1063	0.408	432	0	0.4	0.7	5.698	A
	4 - Swale Way	1147	287	646	1039	1.104	1022	702	5.5	36.8	88.155	F
	5 - Grovehurst Road	535	134	960	812	0.659	532	708	1.0	1.9	12.688	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	987	247	729	968	1.019	928	0	3.7	18.3	55.886	F
	2 - Grovehurst Road	259	65	1228	743	0.348	258	429	0.3	0.5	7.417	A
	3 - A249 onslip (NB)			967				519				
	4 - B2005 - link	729	182	0	1730	0.421	729	967	0.6	0.7	3.596	A
2 - South	1 - A249 onslip (SB)			839				725				
	2 - B2005 - link	965	241	116	1840	0.525	964	723	0.8	1.1	4.104	A
	3 - A249 offslip (SB)	531	133	1080	913	0.581	528	0	0.7	1.4	9.289	A
	4 - Swale Way	1405	351	771	956	1.470	955	837	36.8	149.2	359.321	F
	5 - Grovehurst Road	655	164	914	848	0.772	650	812	1.9	3.1	17.678	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	987	247	730	968	1.020	950	0	18.3	27.3	97.382	F
	2 - Grovehurst Road	259	65	1247	727	0.356	259	433	0.5	0.5	7.682	A
	3 - A249 onslip (NB)			985				520				
	4 - B2005 - link	730	182	0	1730	0.422	730	985	0.7	0.7	3.598	A
2 - South	1 - A249 onslip (SB)			841				724				
	2 - B2005 - link	984	246	117	1840	0.535	984	724	1.1	1.1	4.207	A
	3 - A249 offslip (SB)	531	133	1101	894	0.594	530	0	1.4	1.4	9.890	A
	4 - Swale Way	1405	351	781	949	1.481	949	850	149.2	263.2	765.089	F
	5 - Grovehurst Road	655	164	909	852	0.769	655	821	3.1	3.2	18.177	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	805	201	680	1004	0.802	896	0	27.3	4.6	46.897	E
	2 - Grovehurst Road	211	53	1170	788	0.268	212	406	0.5	0.4	6.254	A
	3 - A249 onslip (NB)			901				481				
	4 - B2005 - link	680	170	0	1730	0.393	680	901	0.7	0.7	3.429	A
	1 - A249 onslip (SB)			770				724				

2 - South	2 - B2005 - link	903	226	96	1852	0.488	904	674	1.1	1.0	3.800	A
	3 - A249 offslip (SB)	433	108	1000	985	0.440	436	0	1.4	0.8	6.589	A
	4 - Swale Way	1147	287	688	1011	1.135	1011	748	263.2	297.3	994.728	F
	5 - Grovehurst Road	535	134	955	816	0.655	540	744	3.2	2.0	13.246	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	675	169	654	1023	0.659	685	0	4.6	2.0	10.969	B
	2 - Grovehurst Road	177	44	985	944	0.187	177	354	0.4	0.2	4.700	A
	3 - A249 onslip (NB)			702				460				
	4 - B2005 - link	654	164	0	1730	0.378	654	702	0.7	0.6	3.347	A
2 - South	1 - A249 onslip (SB)			729				738				
	2 - B2005 - link	703	176	80	1861	0.378	704	649	1.0	0.6	3.114	A
	3 - A249 offslip (SB)	363	91	784	1182	0.307	364	0	0.8	0.4	4.411	A
	4 - Swale Way	961	240	550	1102	0.872	1098	598	297.3	262.9	918.437	F
	5 - Grovehurst Road	448	112	1017	767	0.584	450	631	2.0	1.4	11.436	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.67	0.33	1.47	2.67	3.20			N/A	N/A
	2 - Grovehurst Road	0.22	0.00	0.00	0.22	0.22			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.58	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.43	0.00	0.00	0.43	0.43			N/A	N/A
	4 - Swale Way	5.50	0.03	0.28	5.50	14.81			N/A	N/A
	5 - Grovehurst Road	1.02	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.69	0.07	1.35	9.91	14.82			N/A	N/A
	2 - Grovehurst Road	0.33	0.00	0.00	0.33	0.33			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.64	0.22	0.94	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.79	0.10	0.86	1.15	1.15			N/A	N/A
	3 - A249 offslip (SB)	0.68	0.08	0.77	1.38	1.45			N/A	N/A
	4 - Swale Way	36.76	0.87	21.86	90.16	121.30			N/A	N/A
	5 - Grovehurst Road	1.86	0.09	1.22	4.04	5.61			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	18.26	1.08	12.46	41.00	53.20			N/A	N/A
	2 - Grovehurst Road	0.53	0.03	0.25	0.53	0.53			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.25	0.72	0.72			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.09	0.03	0.26	1.09	1.09			N/A	N/A
	3 - A249 offslip (SB)	1.36	0.03	0.27	1.36	1.36			N/A	N/A
	4 - Swale Way	149.16	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.14	0.03	0.32	5.37	16.34			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	27.31	1.30	18.19	62.94	82.37			N/A	N/A
	2 - Grovehurst Road	0.55	0.03	0.31	1.00	2.51			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.73	0.03	0.27	0.73	1.47			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.14	0.03	0.26	1.14	1.14			N/A	N/A
	3 - A249 offslip (SB)	1.43	0.03	0.28	1.43	4.12			N/A	N/A
	4 - Swale Way	263.24	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.22	0.03	0.28	3.22	10.04			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.65	0.04	0.44	12.93	23.97			N/A	N/A
	2 - Grovehurst Road	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.65	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.96	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.80	0.14	0.91	1.41	1.48			N/A	N/A
	4 - Swale Way	297.32	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.97	0.05	0.47	5.32	8.67			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.00	0.03	0.30	2.19	9.28			N/A	N/A
	2 - Grovehurst Road	0.23	0.00	0.00	0.23	0.23			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.61	0.11	0.85	1.37	1.44			N/A	N/A
	3 - A249 offslip (SB)	0.45	0.04	0.38	1.23	1.37			N/A	N/A
	4 - Swale Way	262.90	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.44	0.04	0.42	3.77	6.28			N/A	N/A

# 2024 + K3 Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	16.99	C
2	South	Standard Roundabout	1, 2, 3, 4, 5	62.82	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	863	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	692	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	821
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	147	327	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	141	0	0	910	183
		3 - A249 offslip (SB)	1	18	0	377	174
		4 - Swale Way	389	226	0	0	77
		5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	7	0	18
		2 - Grovehurst Road	0	0	8	3
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	7	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	16	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	39	10	0	0	9
		5 - Grovehurst Road	1	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.87	23.76	5.9	30.3	C	792	1188
	2 - Grovehurst Road	0.70	17.26	2.2	9.1	C	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.31	3.15	0.5	1.9	A	437	655
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.74	7.38	2.7	5.4	A	1136	1704
	3 - A249 offslip (SB)	1.22	297.32	58.1	98.0	F	523	785
	4 - Swale Way	0.78	16.39	3.4	16.3	C	635	952
	5 - Grovehurst Road	0.81	21.80	3.9	19.5	C	561	841

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	650	162	355	1221	0.532	645	0	0.0	1.1	6.209	A
	2 - Grovehurst Road	331	83	859	1014	0.327	329	142	0.0	0.5	5.240	A
	3 - A249 onslip (NB)			924				264				
	4 - B2005 - link	356	89	0	1664	0.214	355	924	0.0	0.3	2.748	A
2 - South	1 - A249 onslip (SB)			485				551				
	2 - B2005 - link	927	232	129	1885	0.492	923	357	0.0	1.0	3.725	A
	3 - A249 offslip (SB)	429	107	1051	947	0.453	426	0	0.0	0.8	6.860	A
	4 - Swale Way	521	130	386	1064	0.490	517	1091	0.0	0.9	6.540	A
	5 - Grovehurst Road	460	115	579	1066	0.432	457	324	0.0	0.8	5.884	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	776	194	426	1167	0.665	773	0	1.1	1.9	9.064	A
	2 - Grovehurst Road	396	99	1029	878	0.451	394	170	0.5	0.8	7.427	A
	3 - A249 onslip (NB)			1107				316				
	4 - B2005 - link	427	107	0	1664	0.256	426	1107	0.3	0.3	2.909	A
2 - South	1 - A249 onslip (SB)			581				660				
	2 - B2005 - link	1109	277	154	1870	0.593	1108	427	1.0	1.4	4.711	A
	3 - A249 offslip (SB)	512	128	1262	764	0.670	508	0	0.8	1.9	13.805	B
	4 - Swale Way	622	156	463	1019	0.610	620	1307	0.9	1.5	8.956	A
	5 - Grovehurst Road	549	137	694	967	0.568	547	388	0.8	1.3	8.520	A

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	950	238	515	1099	0.864	936	0	1.9	5.5	20.466	C
	2 - Grovehurst Road	484	121	1246	704	0.689	479	205	0.8	2.1	15.710	C
	3 - A249 onslip (NB)			1343				383				
	4 - B2005 - link	515	129	0	1664	0.310	515	1343	0.3	0.4	3.134	A
2 - South	1 - A249 onslip (SB)			703				802				
	2 - B2005 - link	1346	336	187	1850	0.728	1341	516	1.4	2.6	7.014	A
	3 - A249 offslip (SB)	628	157	1528	532	1.179	519	0	1.9	29.1	125.696	F
	4 - Swale Way	762	190	528	981	0.777	755	1519	1.5	3.2	15.465	C
	5 - Grovehurst Road	673	168	842	841	0.800	663	441	1.3	3.6	19.359	C

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	950	238	520	1095	0.867	948	0	5.5	5.9	23.756	C
	2 - Grovehurst Road	484	121	1261	691	0.701	484	208	2.1	2.2	17.261	C
	3 - A249 onslip (NB)			1358				386				
	4 - B2005 - link	520	130	0	1664	0.313	520	1358	0.4	0.5	3.148	A
2 - South	1 - A249 onslip (SB)			710				811				
	2 - B2005 - link	1362	340	189	1848	0.737	1361	521	2.6	2.7	7.378	A
	3 - A249 offslip (SB)	628	157	1550	513	1.224	511	0	29.1	58.1	297.316	F
	4 - Swale Way	762	190	531	980	0.778	761	1531	3.2	3.4	16.394	C
	5 - Grovehurst Road	673	168	849	834	0.806	672	443	3.6	3.9	21.800	C

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	776	194	441	1156	0.671	791	0	5.9	2.1	10.269	B
	2 - Grovehurst Road	396	99	1057	856	0.462	401	175	2.2	0.9	8.015	A
	3 - A249 onslip (NB)			1131				327				
	4 - B2005 - link	441	110	0	1664	0.265	441	1131	0.5	0.4	2.947	A
	1 - A249 onslip (SB)			599				673				

2 - South	2 - B2005 - link	1134	283	157	1868	0.607	1139	441	2.7	1.6	4.971	A
	3 - A249 offslip (SB)	512	128	1296	734	0.698	722	0	58.1	5.8	166.829	F
	4 - Swale Way	622	156	543	972	0.640	628	1474	3.4	1.8	10.655	B
	5 - Grovehurst Road	549	137	712	953	0.576	559	459	3.9	1.4	9.363	A

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	650	162	362	1216	0.535	653	0	2.1	1.2	6.448	A
	2 - Grovehurst Road	331	83	871	1005	0.330	333	144	0.9	0.5	5.372	A
	3 - A249 onslip (NB)			936				268				
	4 - B2005 - link	361	90	0	1664	0.217	362	936	0.4	0.3	2.767	A
2 - South	1 - A249 onslip (SB)			492				559				
	2 - B2005 - link	938	234	130	1884	0.498	940	362	1.6	1.0	3.821	A
	3 - A249 offslip (SB)	429	107	1070	931	0.461	449	0	5.8	0.9	7.762	A
	4 - Swale Way	521	130	399	1057	0.493	524	1120	1.8	1.0	6.805	A
	5 - Grovehurst Road	460	115	588	1058	0.435	462	335	1.4	0.8	6.065	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.12	0.55	1.03	1.45	1.50			N/A	N/A
	2 - Grovehurst Road	0.48	0.00	0.00	0.48	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.96	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.82	0.05	0.57	1.57	2.05			N/A	N/A
	4 - Swale Way	0.95	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	0.75	0.55	1.00	1.40	1.45			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.93	0.05	0.63	5.00	7.77			N/A	N/A
	2 - Grovehurst Road	0.81	0.06	0.73	1.30	1.76			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.44	0.05	0.56	3.57	5.40			N/A	N/A
	3 - A249 offslip (SB)	1.95	0.04	0.39	5.16	9.63			N/A	N/A
	4 - Swale Way	1.53	0.06	0.89	3.54	5.02			N/A	N/A
	5 - Grovehurst Road	1.29	0.06	0.67	2.94	4.36			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	5.45	0.04	0.40	14.31	29.48			N/A	N/A
	2 - Grovehurst Road	2.10	0.03	0.29	2.10	8.75			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.60	0.03	0.27	2.60	4.75			N/A	N/A
	3 - A249 offslip (SB)	29.07	9.69	26.29	47.70	55.33			N/A	N/A
	4 - Swale Way	3.23	0.03	0.32	4.84	16.28			N/A	N/A
	5 - Grovehurst Road	3.62	0.03	0.34	7.70	19.53			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	5.94	0.03	0.33	9.21	30.30			N/A	N/A
	2 - Grovehurst Road	2.25	0.03	0.29	2.25	9.13			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.31	1.38	1.88			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.74	0.03	0.27	2.74	2.74			N/A	N/A
	3 - A249 offslip (SB)	58.12	26.67	54.86	87.08	98.02			N/A	N/A
	4 - Swale Way	3.36	0.03	0.29	3.36	10.80			N/A	N/A
	5 - Grovehurst Road	3.89	0.03	0.30	4.07	17.89			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.11	0.04	0.44	5.75	9.73			N/A	N/A
	2 - Grovehurst Road	0.87	0.06	0.67	1.65	2.18			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.57	0.10	1.19	3.05	4.08			N/A	N/A
	3 - A249 offslip (SB)	5.77	0.08	1.34	16.01	24.21			N/A	N/A
	4 - Swale Way	1.83	0.06	0.90	4.52	6.63			N/A	N/A
	5 - Grovehurst Road	1.39	0.05	0.47	3.53	5.54			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.17	0.03	0.32	2.42	5.92			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.35	1.44	1.67			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.00	0.05	0.50	2.17	3.22			N/A	N/A
	3 - A249 offslip (SB)	0.87	0.03	0.26	0.87	0.87			N/A	N/A
	4 - Swale Way	0.99	0.04	0.36	2.45	4.49			N/A	N/A
	5 - Grovehurst Road	0.78	0.03	0.33	1.74	3.70			N/A	N/A



# 2024 + K3 Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	28.39	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	306.69	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	828	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	443	100.000
	4 - Swale Way		ONE HOUR	✓	1277	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	648
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	262	522	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	42	0	0	480	322
		3 - A249 offslip (SB)	1	27	0	199	216
		4 - Swale Way	686	432	0	0	159
	5 - Grovehurst Road	110	318	0	106	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	1	0	22
		2 - Grovehurst Road	0	0	0	1
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	4	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	28	1
		3 - A249 offslip (SB)	0	11	0	8	4
		4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.95	52.60	12.5	60.5	F	760	1140
	2 - Grovehurst Road	0.33	6.95	0.5	1.9	A	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.42	3.62	0.7	1.5	A	672	1008
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.51	3.99	1.0	1.5	A	781	1172
	3 - A249 offslip (SB)	0.52	8.08	1.1	3.7	A	407	610
	4 - Swale Way	1.38	726.70	231.1	231.1	F	1172	1758
	5 - Grovehurst Road	0.73	16.61	2.6	12.4	C	490	735

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	623	156	576	1068	0.584	618	0	0.0	1.4	7.913	A
	2 - Grovehurst Road	171	43	867	1037	0.165	170	327	0.0	0.2	4.150	A
	3 - A249 onslip (NB)			633				404				
	4 - B2005 - link	578	145	0	1719	0.336	576	633	0.0	0.5	3.145	A
2 - South	1 - A249 onslip (SB)			656				622				
	2 - B2005 - link	637	159	79	1854	0.343	635	577	0.0	0.5	2.947	A
	3 - A249 offslip (SB)	334	83	714	1236	0.270	332	0	0.0	0.4	3.976	A
	4 - Swale Way	961	240	457	1160	0.829	944	589	0.0	4.4	15.604	C
	5 - Grovehurst Road	402	101	879	874	0.460	399	522	0.0	0.8	7.517	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	744	186	671	998	0.746	739	0	1.4	2.8	13.581	B
	2 - Grovehurst Road	204	51	1025	907	0.225	204	385	0.2	0.3	5.114	A
	3 - A249 onslip (NB)			758				471				
	4 - B2005 - link	671	168	0	1719	0.390	671	758	0.5	0.6	3.432	A
2 - South	1 - A249 onslip (SB)			765				711				
	2 - B2005 - link	762	190	95	1845	0.413	761	670	0.5	0.7	3.320	A
	3 - A249 offslip (SB)	398	100	856	1107	0.360	397	0	0.4	0.6	5.067	A
	4 - Swale Way	1148	287	547	1101	1.043	1068	706	4.4	24.3	61.365	F
	5 - Grovehurst Road	480	120	998	781	0.615	477	617	0.8	1.5	11.751	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	912	228	725	959	0.951	882	0	2.8	10.2	37.366	E
	2 - Grovehurst Road	250	62	1173	783	0.319	249	434	0.3	0.5	6.741	A
	3 - A249 onslip (NB)			910				512				
	4 - B2005 - link	725	181	0	1719	0.422	725	910	0.6	0.7	3.622	A
2 - South	1 - A249 onslip (SB)			840				717				
	2 - B2005 - link	914	228	116	1832	0.499	913	724	0.7	1.0	3.910	A
	3 - A249 offslip (SB)	488	122	1029	950	0.513	486	0	0.6	1.0	7.718	A
	4 - Swale Way	1406	352	661	1026	1.371	1024	853	24.3	119.7	262.205	F
	5 - Grovehurst Road	588	147	973	801	0.734	584	713	1.5	2.6	16.231	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	912	228	726	958	0.952	902	0	10.2	12.5	52.601	F
	2 - Grovehurst Road	250	62	1189	768	0.325	250	439	0.5	0.5	6.946	A
	3 - A249 onslip (NB)			926				513				
	4 - B2005 - link	726	181	0	1719	0.422	726	926	0.7	0.7	3.625	A
2 - South	1 - A249 onslip (SB)			841				716				
	2 - B2005 - link	931	233	117	1832	0.508	931	725	1.0	1.0	3.994	A
	3 - A249 offslip (SB)	488	122	1048	933	0.523	488	0	1.0	1.1	8.076	A
	4 - Swale Way	1406	352	670	1020	1.379	1020	865	119.7	216.3	583.898	F
	5 - Grovehurst Road	588	147	970	804	0.731	588	720	2.6	2.6	16.610	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	744	186	682	990	0.752	782	0	12.5	3.2	19.911	C
	2 - Grovehurst Road	204	51	1066	872	0.234	205	398	0.5	0.3	5.397	A
	3 - A249 onslip (NB)			792				479				
	4 - B2005 - link	682	171	0	1719	0.397	682	792	0.7	0.7	3.476	A
	1 - A249 onslip (SB)			777				725				

2 - South	2 - B2005 - link	798	199	96	1844	0.432	799	681	1.0	0.8	3.445	A
	3 - A249 offslip (SB)	398	100	895	1072	0.372	400	0	1.1	0.6	5.376	A
	4 - Swale Way	1148	287	565	1089	1.054	1089	730	216.3	231.1	726.695	F
	5 - Grovehurst Road	480	120	1018	765	0.627	484	635	2.6	1.7	12.956	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	623	156	652	1012	0.616	630	0	3.2	1.6	9.564	A
	2 - Grovehurst Road	171	43	927	991	0.172	171	355	0.3	0.2	4.393	A
	3 - A249 onslip (NB)			644				454				
	4 - B2005 - link	651	163	0	1719	0.379	652	644	0.7	0.6	3.376	A
2 - South	1 - A249 onslip (SB)			730				734				
	2 - B2005 - link	647	162	80	1853	0.349	648	650	0.8	0.5	2.988	A
	3 - A249 offslip (SB)	334	83	729	1223	0.273	334	0	0.6	0.4	4.057	A
	4 - Swale Way	961	240	464	1155	0.832	1150	599	231.1	183.9	649.882	F
	5 - Grovehurst Road	402	101	1060	731	0.550	404	554	1.7	1.3	11.074	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.37	0.54	1.28	1.81	1.97			N/A	N/A
	2 - Grovehurst Road	0.20	0.00	0.00	0.20	0.20			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	4 - Swale Way	4.37	0.03	0.31	5.74	21.26			N/A	N/A
	5 - Grovehurst Road	0.84	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.77	0.06	1.02	7.39	11.20			N/A	N/A
	2 - Grovehurst Road	0.29	0.00	0.00	0.29	0.29			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.64	0.21	0.93	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.70	0.10	0.84	1.38	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.56	0.07	0.70	1.34	1.42			N/A	N/A
	4 - Swale Way	24.31	0.65	14.62	58.89	78.91			N/A	N/A
	5 - Grovehurst Road	1.55	0.09	1.15	3.09	4.18			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.19	0.10	3.08	28.32	42.01			N/A	N/A
	2 - Grovehurst Road	0.46	0.03	0.25	0.46	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.25	0.72	0.72			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.99	0.03	0.26	0.99	0.99			N/A	N/A
	3 - A249 offslip (SB)	1.04	0.03	0.26	1.04	1.04			N/A	N/A
	4 - Swale Way	119.69	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.59	0.03	0.31	3.16	12.36			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	12.54	0.07	1.39	36.84	60.49			N/A	N/A
	2 - Grovehurst Road	0.48	0.03	0.32	1.44	1.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.73	0.03	0.27	0.73	1.01			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.03	0.03	0.27	1.03	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.08	0.03	0.28	1.08	3.73			N/A	N/A
	4 - Swale Way	216.25	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.65	0.03	0.28	2.65	6.79			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.24	0.04	0.41	8.87	16.54			N/A	N/A
	2 - Grovehurst Road	0.31	0.00	0.00	0.31	0.31			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.66	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.77	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.60	0.10	0.83	1.37	1.43			N/A	N/A
	4 - Swale Way	231.08	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.74	0.05	0.69	4.42	6.68			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.64	0.03	0.31	2.59	8.30			N/A	N/A
	2 - Grovehurst Road	0.21	0.00	0.00	0.21	0.21			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.54	0.54	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.38	0.03	0.30	0.90	1.20			N/A	N/A
	4 - Swale Way	183.87	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.25	0.05	0.46	3.08	4.86			N/A	N/A

# 2024 + WKN Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	17.60	C
2	South	Standard Roundabout	1, 2, 3, 4, 5	65.38	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2024 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	869	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	698	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	827
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	147	327	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	141	0	0	916	183
		3 - A249 offslip (SB)	1	18	0	377	174
		4 - Swale Way	395	226	0	0	77
		5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	7	0	18
		2 - Grovehurst Road	0	0	8	3
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	7	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	17	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	40	10	0	0	9
		5 - Grovehurst Road	1	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.87	24.71	6.2	32.4	C	797	1196
	2 - Grovehurst Road	0.71	17.69	2.3	9.5	C	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.31	3.15	0.5	1.9	A	437	655
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.74	7.53	2.8	5.5	A	1134	1701
	3 - A249 offslip (SB)	1.24	311.09	60.7	100.6	F	523	785
	4 - Swale Way	0.79	17.11	3.5	17.5	C	640	961
	5 - Grovehurst Road	0.81	22.93	4.1	20.4	C	561	841

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	654	164	355	1221	0.536	650	0	0.0	1.1	6.259	A
	2 - Grovehurst Road	331	83	863	1011	0.328	329	142	0.0	0.5	5.268	A
	3 - A249 onslip (NB)			929				264				
	4 - B2005 - link	356	89	0	1664	0.214	355	929	0.0	0.3	2.748	A
2 - South	1 - A249 onslip (SB)			485				555				
	2 - B2005 - link	925	231	129	1873	0.494	921	357	0.0	1.0	3.769	A
	3 - A249 offslip (SB)	429	107	1050	943	0.455	426	0	0.0	0.8	6.914	A
	4 - Swale Way	525	131	385	1059	0.496	522	1091	0.0	1.0	6.648	A
	5 - Grovehurst Road	460	115	583	1060	0.434	457	323	0.0	0.8	5.940	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	781	195	426	1167	0.670	778	0	1.1	2.0	9.180	A
	2 - Grovehurst Road	396	99	1034	873	0.453	394	170	0.5	0.8	7.492	A
	3 - A249 onslip (NB)			1112				316				
	4 - B2005 - link	427	107	0	1664	0.256	426	1112	0.3	0.3	2.909	A
2 - South	1 - A249 onslip (SB)			581				665				
	2 - B2005 - link	1108	277	154	1857	0.596	1106	427	1.0	1.5	4.778	A
	3 - A249 offslip (SB)	512	128	1260	759	0.675	508	0	0.8	2.0	14.054	B
	4 - Swale Way	627	157	461	1015	0.618	625	1307	1.0	1.6	9.173	A
	5 - Grovehurst Road	549	137	699	960	0.572	547	387	0.8	1.3	8.662	A

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	957	239	515	1100	0.870	942	0	2.0	5.7	21.077	C
	2 - Grovehurst Road	484	121	1251	699	0.693	479	205	0.8	2.1	16.017	C
	3 - A249 onslip (NB)			1348				382				
	4 - B2005 - link	515	129	0	1664	0.310	515	1348	0.3	0.4	3.133	A
2 - South	1 - A249 onslip (SB)			702				807				
	2 - B2005 - link	1343	336	187	1837	0.731	1338	516	1.5	2.6	7.140	A
	3 - A249 offslip (SB)	628	157	1525	527	1.191	515	0	2.0	30.2	130.702	F
	4 - Swale Way	769	192	524	978	0.786	761	1516	1.6	3.4	16.066	C
	5 - Grovehurst Road	673	168	847	833	0.808	663	439	1.3	3.8	20.146	C

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	957	239	520	1096	0.873	955	0	5.7	6.2	24.710	C
	2 - Grovehurst Road	484	121	1267	686	0.706	484	207	2.1	2.3	17.688	C
	3 - A249 onslip (NB)			1365				386				
	4 - B2005 - link	520	130	0	1664	0.313	520	1365	0.4	0.5	3.147	A
2 - South	1 - A249 onslip (SB)			710				816				
	2 - B2005 - link	1359	340	189	1836	0.740	1359	521	2.6	2.8	7.527	A
	3 - A249 offslip (SB)	628	157	1548	507	1.238	506	0	30.2	60.7	311.089	F
	4 - Swale Way	769	192	526	977	0.787	768	1527	3.4	3.5	17.106	C
	5 - Grovehurst Road	673	168	855	826	0.815	671	440	3.8	4.1	22.927	C

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	781	195	441	1155	0.676	797	0	6.2	2.2	10.484	B
	2 - Grovehurst Road	396	99	1063	850	0.465	401	175	2.3	0.9	8.114	A
	3 - A249 onslip (NB)			1137				327				
	4 - B2005 - link	441	110	0	1664	0.265	441	1137	0.5	0.4	2.945	A
	1 - A249 onslip (SB)			599				678				



2 - South	2 - B2005 - link	1133	283	158	1855	0.611	1138	441	2.8	1.6	5.051	A
	3 - A249 offslip (SB)	512	128	1295	728	0.704	716	0	60.7	9.7	183.071	F
	4 - Swale Way	627	157	540	969	0.648	634	1472	3.5	1.9	10.955	B
	5 - Grovehurst Road	549	137	717	946	0.581	560	457	4.1	1.4	9.579	A

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	654	164	362	1215	0.538	658	0	2.2	1.2	6.509	A
	2 - Grovehurst Road	331	83	876	1000	0.331	333	144	0.9	0.5	5.405	A
	3 - A249 onslip (NB)			940				269				
	4 - B2005 - link	362	90	0	1664	0.218	362	940	0.4	0.3	2.768	A
2 - South	1 - A249 onslip (SB)			493				563				
	2 - B2005 - link	936	234	130	1872	0.500	939	362	1.6	1.0	3.870	A
	3 - A249 offslip (SB)	429	107	1069	927	0.463	464	0	9.7	0.9	8.386	A
	4 - Swale Way	525	131	403	1049	0.501	529	1131	1.9	1.0	6.971	A
	5 - Grovehurst Road	460	115	593	1052	0.437	463	339	1.4	0.8	6.136	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.14	0.55	1.04	1.27	1.27			N/A	N/A
	2 - Grovehurst Road	0.48	0.00	0.00	0.48	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.97	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.82	0.05	0.54	1.62	2.22			N/A	N/A
	4 - Swale Way	0.97	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	0.76	0.55	1.00	1.40	1.45			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.97	0.05	0.63	5.15	7.96			N/A	N/A
	2 - Grovehurst Road	0.82	0.06	0.73	1.35	1.80			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.46	0.05	0.56	3.62	5.50			N/A	N/A
	3 - A249 offslip (SB)	1.98	0.04	0.39	5.26	9.83			N/A	N/A
	4 - Swale Way	1.58	0.06	0.89	3.70	5.33			N/A	N/A
	5 - Grovehurst Road	1.31	0.05	0.66	3.00	4.50			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	5.67	0.04	0.41	15.21	30.49			N/A	N/A
	2 - Grovehurst Road	2.14	0.03	0.29	2.14	9.15			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.64	0.03	0.28	2.64	5.14			N/A	N/A
	3 - A249 offslip (SB)	30.19	10.55	27.46	48.89	56.47			N/A	N/A
	4 - Swale Way	3.39	0.03	0.32	5.62	17.52			N/A	N/A
	5 - Grovehurst Road	3.77	0.04	0.35	8.47	20.43			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	6.21	0.03	0.33	10.50	32.41			N/A	N/A
	2 - Grovehurst Road	2.30	0.03	0.29	2.30	9.51			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.31	1.38	1.88			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.79	0.03	0.27	2.79	2.79			N/A	N/A
	3 - A249 offslip (SB)	60.65	28.91	57.50	89.69	100.58			N/A	N/A
	4 - Swale Way	3.53	0.03	0.29	3.53	12.11			N/A	N/A
	5 - Grovehurst Road	4.08	0.03	0.31	4.86	19.40			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.16	0.04	0.44	5.89	10.03			N/A	N/A
	2 - Grovehurst Road	0.88	0.06	0.66	1.69	2.28			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.59	0.10	1.19	3.16	4.25			N/A	N/A
	3 - A249 offslip (SB)	9.69	0.43	6.06	22.16	29.19			N/A	N/A
	4 - Swale Way	1.90	0.06	0.86	4.75	7.02			N/A	N/A
	5 - Grovehurst Road	1.42	0.05	0.46	3.64	5.77			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.18	0.03	0.32	2.40	6.03			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.35	1.45	1.71			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.01	0.05	0.49	2.24	3.34			N/A	N/A
	3 - A249 offslip (SB)	0.88	0.03	0.26	0.88	0.88			N/A	N/A
	4 - Swale Way	1.02	0.04	0.36	2.53	4.73			N/A	N/A
	5 - Grovehurst Road	0.79	0.03	0.32	1.72	3.78			N/A	N/A

# 2024 + WKN Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	28.16	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	328.49	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2024 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	830	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	444	100.000
	4 - Swale Way		ONE HOUR	✓	1295	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	650
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	262	522	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	42	0	0	482	322
		3 - A249 offslip (SB)	1	27	0	200	216
		4 - Swale Way	704	432	0	0	159
	5 - Grovehurst Road	110	318	0	106	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	1	0	22
		2 - Grovehurst Road	0	0	0	1
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	4	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	29	1
		3 - A249 offslip (SB)	0	11	0	8	4
		4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.95	51.99	12.4	60.2	F	762	1142
	2 - Grovehurst Road	0.33	6.94	0.5	1.9	A	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.42	3.61	0.7	1.5	A	668	1003
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.51	4.03	1.0	1.5	A	779	1169
	3 - A249 offslip (SB)	0.53	8.14	1.1	3.7	A	407	611
	4 - Swale Way	1.40	773.20	247.9	247.9	F	1188	1782
	5 - Grovehurst Road	0.74	16.77	2.7	12.6	C	490	735

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	625	156	576	1068	0.585	619	0	0.0	1.4	7.935	A
	2 - Grovehurst Road	171	43	868	1036	0.165	170	327	0.0	0.2	4.155	A
	3 - A249 onslip (NB)			635				404				
	4 - B2005 - link	578	144	0	1719	0.336	576	635	0.0	0.5	3.144	A
2 - South	1 - A249 onslip (SB)			656				634				
	2 - B2005 - link	635	159	79	1845	0.344	633	577	0.0	0.5	2.966	A
	3 - A249 offslip (SB)	334	84	712	1235	0.271	333	0	0.0	0.4	3.986	A
	4 - Swale Way	975	244	455	1160	0.841	956	590	0.0	4.7	16.430	C
	5 - Grovehurst Road	402	101	891	864	0.465	399	520	0.0	0.9	7.679	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	746	187	667	1001	0.746	741	0	1.4	2.8	13.555	B
	2 - Grovehurst Road	204	51	1024	907	0.225	204	384	0.2	0.3	5.113	A
	3 - A249 onslip (NB)			759				468				
	4 - B2005 - link	668	167	0	1719	0.388	667	759	0.5	0.6	3.421	A
2 - South	1 - A249 onslip (SB)			761				720				
	2 - B2005 - link	760	190	95	1835	0.414	759	666	0.5	0.7	3.342	A
	3 - A249 offslip (SB)	399	100	854	1105	0.361	398	0	0.4	0.6	5.086	A
	4 - Swale Way	1164	291	545	1101	1.058	1073	707	4.7	27.4	67.065	F
	5 - Grovehurst Road	480	120	1004	775	0.619	477	614	0.9	1.6	11.962	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	914	228	720	962	0.950	884	0	2.8	10.1	37.072	E
	2 - Grovehurst Road	250	62	1172	783	0.319	249	432	0.3	0.5	6.739	A
	3 - A249 onslip (NB)			912				509				
	4 - B2005 - link	720	180	0	1719	0.419	720	912	0.6	0.7	3.605	A
2 - South	1 - A249 onslip (SB)			835				724				
	2 - B2005 - link	912	228	116	1823	0.500	911	719	0.7	1.0	3.940	A
	3 - A249 offslip (SB)	489	122	1026	948	0.516	487	0	0.6	1.0	7.774	A
	4 - Swale Way	1426	356	659	1026	1.390	1025	854	27.4	127.7	281.347	F
	5 - Grovehurst Road	588	147	975	799	0.736	584	709	1.6	2.6	16.393	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	914	228	721	961	0.951	905	0	10.1	12.4	51.988	F
	2 - Grovehurst Road	250	62	1189	768	0.325	250	437	0.5	0.5	6.942	A
	3 - A249 onslip (NB)			929				510				
	4 - B2005 - link	721	180	0	1719	0.420	721	929	0.7	0.7	3.608	A
2 - South	1 - A249 onslip (SB)			837				723				
	2 - B2005 - link	929	232	117	1823	0.510	929	720	1.0	1.0	4.025	A
	3 - A249 offslip (SB)	489	122	1045	931	0.525	489	0	1.0	1.1	8.139	A
	4 - Swale Way	1426	356	668	1020	1.398	1020	866	127.7	229.1	618.738	F
	5 - Grovehurst Road	588	147	972	802	0.733	588	716	2.6	2.7	16.770	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	746	187	677	993	0.751	783	0	12.4	3.2	19.656	C
	2 - Grovehurst Road	204	51	1064	873	0.234	205	396	0.5	0.3	5.388	A
	3 - A249 onslip (NB)			794				475				
	4 - B2005 - link	677	169	0	1719	0.394	677	794	0.7	0.7	3.459	A
2 - South	1 - A249 onslip (SB)			772				732				

2 - South	2 - B2005 - link	795	199	96	1835	0.433	796	676	1.0	0.8	3.471	A
	3 - A249 offslip (SB)	399	100	892	1070	0.373	401	0	1.1	0.6	5.398	A
	4 - Swale Way	1164	291	563	1089	1.069	1089	730	229.1	247.9	773.205	F
	5 - Grovehurst Road	480	120	1020	763	0.629	484	632	2.7	1.8	13.064	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	625	156	646	1016	0.615	631	0	3.2	1.6	9.505	A
	2 - Grovehurst Road	171	43	925	993	0.172	171	353	0.3	0.2	4.384	A
	3 - A249 onslip (NB)			645				451				
	4 - B2005 - link	646	162	0	1719	0.376	646	645	0.7	0.6	3.356	A
2 - South	1 - A249 onslip (SB)			725				741				
	2 - B2005 - link	646	161	80	1844	0.350	647	645	0.8	0.5	3.010	A
	3 - A249 offslip (SB)	334	84	727	1221	0.274	335	0	0.6	0.4	4.067	A
	4 - Swale Way	975	244	462	1155	0.844	1150	600	247.9	204.0	707.524	F
	5 - Grovehurst Road	402	101	1062	729	0.552	404	550	1.8	1.3	11.152	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.38	0.55	1.28	1.82	1.97			N/A	N/A
	2 - Grovehurst Road	0.20	0.00	0.00	0.20	0.20			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	4 - Swale Way	4.70	0.03	0.30	4.70	21.14			N/A	N/A
	5 - Grovehurst Road	0.86	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.77	0.06	1.02	7.39	11.19			N/A	N/A
	2 - Grovehurst Road	0.29	0.00	0.00	0.29	0.29			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.63	0.21	0.93	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.70	0.10	0.84	1.38	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.56	0.07	0.70	1.34	1.42			N/A	N/A
	4 - Swale Way	27.44	0.77	16.69	66.27	88.60			N/A	N/A
	5 - Grovehurst Road	1.57	0.09	1.16	3.17	4.29			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.12	0.10	2.98	28.21	41.96			N/A	N/A
	2 - Grovehurst Road	0.46	0.03	0.25	0.46	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.25	0.72	0.72			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.99	0.03	0.26	0.99	0.99			N/A	N/A
	3 - A249 offslip (SB)	1.05	0.03	0.26	1.05	1.05			N/A	N/A
	4 - Swale Way	127.66	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.62	0.03	0.31	3.29	12.55			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	12.42	0.07	1.28	36.50	60.24			N/A	N/A
	2 - Grovehurst Road	0.48	0.03	0.32	1.44	1.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.27	0.72	1.07			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.03	0.03	0.27	1.03	1.44			N/A	N/A
	3 - A249 offslip (SB)	1.09	0.03	0.28	1.09	3.74			N/A	N/A
	4 - Swale Way	229.10	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.67	0.03	0.28	2.67	6.92			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.22	0.04	0.41	8.81	16.45			N/A	N/A
	2 - Grovehurst Road	0.31	0.00	0.00	0.31	0.31			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.65	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.77	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.60	0.10	0.83	1.37	1.43			N/A	N/A
	4 - Swale Way	247.89	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.76	0.05	0.66	4.50	6.83			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.64	0.03	0.31	2.58	8.26			N/A	N/A
	2 - Grovehurst Road	0.21	0.00	0.00	0.21	0.21			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.54	0.54	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.38	0.03	0.30	0.93	1.22			N/A	N/A
	4 - Swale Way	204.02	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.26	0.05	0.45	3.14	4.96			N/A	N/A

# 2024 + K3 and WKN Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	18.71	C
2	South	Standard Roundabout	1, 2, 3, 4, 5	69.14	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	871	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	701	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000



## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	829
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	147	327	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	141	0	0	918	183
		3 - A249 offslip (SB)	1	18	0	377	174
		4 - Swale Way	398	226	0	0	77
		5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	7	0	19
		2 - Grovehurst Road	0	0	8	3
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	7	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	17	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	41	10	0	0	9
		5 - Grovehurst Road	1	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.88	26.48	6.6	35.7	D	799	1199
	2 - Grovehurst Road	0.71	18.37	2.4	10.1	C	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.31	3.15	0.5	1.9	A	437	655
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.75	7.68	2.9	5.7	A	1143	1714
	3 - A249 offslip (SB)	1.26	332.25	64.5	104.3	F	523	785
	4 - Swale Way	0.79	17.73	3.7	18.5	C	643	965
	5 - Grovehurst Road	0.82	23.88	4.2	21.1	C	561	841

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	656	164	355	1211	0.542	651	0	0.0	1.2	6.382	A
	2 - Grovehurst Road	331	83	865	1005	0.330	329	142	0.0	0.5	5.311	A
	3 - A249 onslip (NB)			930				264				
	4 - B2005 - link	356	89	0	1664	0.214	355	930	0.0	0.3	2.748	A
2 - South	1 - A249 onslip (SB)			485				558				
	2 - B2005 - link	932	233	129	1872	0.498	928	357	0.0	1.0	3.797	A
	3 - A249 offslip (SB)	429	107	1057	937	0.458	426	0	0.0	0.8	6.994	A
	4 - Swale Way	528	132	386	1053	0.501	524	1096	0.0	1.0	6.750	A
	5 - Grovehurst Road	460	115	586	1055	0.436	457	324	0.0	0.8	5.986	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	783	196	426	1157	0.677	780	0	1.2	2.0	9.443	A
	2 - Grovehurst Road	396	99	1036	867	0.456	394	170	0.5	0.8	7.596	A
	3 - A249 onslip (NB)			1114				316				
	4 - B2005 - link	426	107	0	1664	0.256	426	1114	0.3	0.3	2.909	A
2 - South	1 - A249 onslip (SB)			581				668				
	2 - B2005 - link	1116	279	154	1857	0.601	1114	427	1.0	1.5	4.832	A
	3 - A249 offslip (SB)	512	128	1268	752	0.681	508	0	0.8	2.0	14.444	B
	4 - Swale Way	630	158	462	1009	0.625	628	1313	1.0	1.6	9.374	A
	5 - Grovehurst Road	549	137	702	955	0.575	547	388	0.8	1.3	8.777	A

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	959	240	514	1091	0.879	943	0	2.0	6.0	22.223	C
	2 - Grovehurst Road	484	121	1252	692	0.700	479	205	0.8	2.2	16.497	C
	3 - A249 onslip (NB)			1349				382				
	4 - B2005 - link	514	129	0	1664	0.309	514	1349	0.3	0.4	3.132	A
2 - South	1 - A249 onslip (SB)			702				811				
	2 - B2005 - link	1352	338	186	1837	0.736	1347	515	1.5	2.7	7.264	A
	3 - A249 offslip (SB)	628	157	1533	519	1.208	508	0	2.0	31.9	138.463	F
	4 - Swale Way	772	193	523	974	0.793	764	1518	1.6	3.5	16.594	C
	5 - Grovehurst Road	673	168	850	826	0.814	662	438	1.3	3.9	20.793	C

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	959	240	520	1087	0.882	956	0	6.0	6.6	26.481	D
	2 - Grovehurst Road	484	121	1269	678	0.714	484	207	2.2	2.4	18.367	C
	3 - A249 onslip (NB)			1367				386				
	4 - B2005 - link	520	130	0	1664	0.312	520	1367	0.4	0.5	3.146	A
2 - South	1 - A249 onslip (SB)			709				820				
	2 - B2005 - link	1369	342	189	1836	0.746	1368	520	2.7	2.9	7.684	A
	3 - A249 offslip (SB)	628	157	1557	498	1.260	497	0	31.9	64.5	332.249	F
	4 - Swale Way	772	193	525	973	0.793	771	1529	3.5	3.7	17.730	C
	5 - Grovehurst Road	673	168	858	819	0.821	671	438	3.9	4.2	23.880	C

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	783	196	441	1146	0.683	801	0	6.6	2.2	10.921	B
	2 - Grovehurst Road	396	99	1066	842	0.470	401	175	2.4	0.9	8.273	A
	3 - A249 onslip (NB)			1141				327				
	4 - B2005 - link	441	110	0	1664	0.265	441	1141	0.5	0.4	2.945	A
	1 - A249 onslip (SB)			599				682				

2 - South	2 - B2005 - link	1143	286	158	1855	0.616	1148	441	2.9	1.6	5.130	A
	3 - A249 offslip (SB)	512	128	1306	719	0.713	708	0	64.5	15.6	208.234	F
	4 - Swale Way	630	158	539	964	0.653	637	1474	3.7	1.9	11.217	B
	5 - Grovehurst Road	549	137	721	940	0.585	560	455	4.2	1.4	9.762	A

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	656	164	363	1205	0.544	660	0	2.2	1.2	6.656	A
	2 - Grovehurst Road	331	83	878	994	0.333	333	144	0.9	0.5	5.455	A
	3 - A249 onslip (NB)			942				269				
	4 - B2005 - link	363	91	0	1664	0.218	363	942	0.4	0.3	2.768	A
2 - South	1 - A249 onslip (SB)			493				566				
	2 - B2005 - link	944	236	130	1871	0.504	946	363	1.6	1.0	3.901	A
	3 - A249 offslip (SB)	429	107	1076	920	0.466	488	0	15.6	0.9	9.543	A
	4 - Swale Way	528	132	412	1038	0.508	531	1152	1.9	1.0	7.152	A
	5 - Grovehurst Road	460	115	597	1046	0.440	463	347	1.4	0.8	6.192	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.16	0.56	1.01	1.16	1.51			N/A	N/A
	2 - Grovehurst Road	0.49	0.00	0.00	0.49	0.49			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.98	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.83	0.05	0.49	1.70	2.43			N/A	N/A
	4 - Swale Way	0.99	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	0.76	0.55	1.00	1.40	1.45			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.03	0.05	0.64	5.35	8.29			N/A	N/A
	2 - Grovehurst Road	0.83	0.06	0.72	1.40	1.84			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.49	0.05	0.54	3.71	5.65			N/A	N/A
	3 - A249 offslip (SB)	2.04	0.04	0.39	5.41	10.14			N/A	N/A
	4 - Swale Way	1.62	0.06	0.89	3.82	5.53			N/A	N/A
	5 - Grovehurst Road	1.32	0.05	0.65	3.08	4.61			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	6.02	0.04	0.43	16.61	31.88			N/A	N/A
	2 - Grovehurst Road	2.20	0.03	0.30	2.20	9.78			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.70	0.03	0.28	2.70	5.67			N/A	N/A
	3 - A249 offslip (SB)	31.89	11.88	29.24	50.75	58.29			N/A	N/A
	4 - Swale Way	3.52	0.03	0.33	6.26	18.48			N/A	N/A
	5 - Grovehurst Road	3.90	0.04	0.36	9.07	21.10			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	6.65	0.03	0.34	12.74	35.72			N/A	N/A
	2 - Grovehurst Road	2.39	0.03	0.29	2.39	10.10			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.31	1.38	1.88			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.86	0.03	0.27	2.86	2.86			N/A	N/A
	3 - A249 offslip (SB)	64.47	32.30	61.45	93.55	104.29			N/A	N/A
	4 - Swale Way	3.67	0.03	0.29	3.67	13.24			N/A	N/A
	5 - Grovehurst Road	4.25	0.03	0.31	5.55	20.63			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.23	0.04	0.43	6.10	10.53			N/A	N/A
	2 - Grovehurst Road	0.90	0.06	0.65	1.75	2.42			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.63	0.09	1.20	3.32	4.47			N/A	N/A
	3 - A249 offslip (SB)	15.64	2.64	12.89	29.19	35.42			N/A	N/A
	4 - Swale Way	1.95	0.06	0.82	4.93	7.43			N/A	N/A
	5 - Grovehurst Road	1.44	0.05	0.45	3.71	5.92			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.21	0.03	0.32	2.37	6.21			N/A	N/A
	2 - Grovehurst Road	0.50	0.03	0.35	1.47	1.77			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.03	0.05	0.48	2.33	3.48			N/A	N/A
	3 - A249 offslip (SB)	0.89	0.03	0.26	0.89	0.89			N/A	N/A
	4 - Swale Way	1.05	0.04	0.36	2.60	4.92			N/A	N/A
	5 - Grovehurst Road	0.79	0.03	0.32	1.71	3.84			N/A	N/A

# 2024 + K3 and WKN Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	28.74	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	332.03	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	832	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	444	100.000
	4 - Swale Way		ONE HOUR	✓	1298	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	652
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	262	523	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	42	0	0	484	322
		3 - A249 offslip (SB)	1	27	0	200	216
		4 - Swale Way	706	433	0	0	159
		5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	1	0	22
		2 - Grovehurst Road	0	0	0	1
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	3	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	29	1
		3 - A249 offslip (SB)	0	11	0	8	4
		4 - Swale Way	19	3	0	0	3
		5 - Grovehurst Road	0	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.95	53.10	12.7	61.0	F	763	1145
	2 - Grovehurst Road	0.33	6.95	0.5	1.9	A	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.42	3.58	0.7	1.4	A	673	1009
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.51	4.03	1.0	1.4	A	781	1172
	3 - A249 offslip (SB)	0.53	8.17	1.1	3.7	A	407	611
	4 - Swale Way	1.40	781.13	250.8	250.8	F	1191	1787
	5 - Grovehurst Road	0.74	16.79	2.7	12.6	C	490	735

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	626	157	580	1067	0.587	621	0	0.0	1.4	7.971	A
	2 - Grovehurst Road	171	43	873	1035	0.165	170	328	0.0	0.2	4.159	A
	3 - A249 onslip (NB)			636				407				
	4 - B2005 - link	582	146	0	1730	0.337	580	636	0.0	0.5	3.125	A
2 - South	1 - A249 onslip (SB)			656				635				
	2 - B2005 - link	637	159	79	1844	0.345	634	577	0.0	0.5	2.970	A
	3 - A249 offslip (SB)	334	84	714	1233	0.271	333	0	0.0	0.4	3.992	A
	4 - Swale Way	977	244	455	1160	0.843	958	591	0.0	4.8	16.573	C
	5 - Grovehurst Road	402	101	893	862	0.466	399	520	0.0	0.9	7.705	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	748	187	672	1000	0.748	742	0	1.4	2.8	13.657	B
	2 - Grovehurst Road	204	51	1029	907	0.225	204	385	0.2	0.3	5.119	A
	3 - A249 onslip (NB)			761				472				
	4 - B2005 - link	672	168	0	1730	0.389	672	761	0.5	0.6	3.400	A
2 - South	1 - A249 onslip (SB)			761				721				
	2 - B2005 - link	761	190	95	1835	0.415	761	667	0.5	0.7	3.349	A
	3 - A249 offslip (SB)	399	100	855	1104	0.362	398	0	0.4	0.6	5.098	A
	4 - Swale Way	1167	292	545	1101	1.060	1074	708	4.8	28.0	68.052	F
	5 - Grovehurst Road	480	120	1005	775	0.620	477	614	0.9	1.6	11.990	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	916	229	725	962	0.952	886	0	2.8	10.3	37.616	E
	2 - Grovehurst Road	250	62	1177	782	0.320	249	434	0.3	0.5	6.746	A
	3 - A249 onslip (NB)			914				513				
	4 - B2005 - link	725	181	0	1730	0.419	725	914	0.6	0.7	3.582	A
2 - South	1 - A249 onslip (SB)			835				724				
	2 - B2005 - link	913	228	116	1823	0.501	912	719	0.7	1.0	3.949	A
	3 - A249 offslip (SB)	489	122	1028	946	0.517	487	0	0.6	1.0	7.801	A
	4 - Swale Way	1429	357	659	1026	1.393	1025	856	28.0	129.0	284.550	F
	5 - Grovehurst Road	588	147	975	799	0.736	584	709	1.6	2.6	16.417	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	916	229	726	961	0.953	906	0	10.3	12.7	53.097	F
	2 - Grovehurst Road	250	62	1194	768	0.326	250	438	0.5	0.5	6.952	A
	3 - A249 onslip (NB)			930				513				
	4 - B2005 - link	726	182	0	1730	0.420	726	930	0.7	0.7	3.584	A
2 - South	1 - A249 onslip (SB)			837				723				
	2 - B2005 - link	930	233	117	1822	0.511	930	720	1.0	1.0	4.035	A
	3 - A249 offslip (SB)	489	122	1047	929	0.526	489	0	1.0	1.1	8.171	A
	4 - Swale Way	1429	357	668	1020	1.401	1020	868	129.0	231.2	624.559	F
	5 - Grovehurst Road	588	147	972	801	0.734	588	716	2.6	2.7	16.793	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	748	187	682	993	0.753	786	0	12.7	3.3	20.046	C
	2 - Grovehurst Road	204	51	1070	872	0.234	205	398	0.5	0.3	5.400	A
	3 - A249 onslip (NB)			796				478				
	4 - B2005 - link	681	170	0	1730	0.394	682	796	0.7	0.7	3.434	A
	1 - A249 onslip (SB)			772				732				

2 - South	2 - B2005 - link	798	199	96	1834	0.435	799	676	1.0	0.8	3.479	A
	3 - A249 offslip (SB)	399	100	895	1067	0.374	401	0	1.1	0.6	5.418	A
	4 - Swale Way	1167	292	563	1089	1.072	1089	733	231.2	250.8	781.133	F
	5 - Grovehurst Road	480	120	1020	763	0.629	484	632	2.7	1.8	13.070	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	626	157	651	1016	0.617	633	0	3.3	1.6	9.548	A
	2 - Grovehurst Road	171	43	929	992	0.172	171	354	0.3	0.2	4.387	A
	3 - A249 onslip (NB)			647				454				
	4 - B2005 - link	650	163	0	1730	0.376	651	647	0.7	0.6	3.337	A
2 - South	1 - A249 onslip (SB)			725				742				
	2 - B2005 - link	647	162	80	1844	0.351	648	645	0.8	0.5	3.015	A
	3 - A249 offslip (SB)	334	84	728	1220	0.274	335	0	0.6	0.4	4.074	A
	4 - Swale Way	977	244	462	1155	0.846	1150	601	250.8	207.4	717.337	F
	5 - Grovehurst Road	402	101	1063	729	0.552	404	550	1.8	1.3	11.163	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.39	0.54	1.29	1.83	1.98			N/A	N/A
	2 - Grovehurst Road	0.20	0.00	0.00	0.20	0.20			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	4 - Swale Way	4.75	0.03	0.30	4.75	21.06			N/A	N/A
	5 - Grovehurst Road	0.86	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.80	0.06	1.03	7.47	11.31			N/A	N/A
	2 - Grovehurst Road	0.29	0.00	0.00	0.29	0.29			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.63	0.21	0.93	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.70	0.10	0.84	1.38	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.56	0.07	0.70	1.34	1.42			N/A	N/A
	4 - Swale Way	27.99	0.79	17.03	67.58	90.34			N/A	N/A
	5 - Grovehurst Road	1.58	0.09	1.16	3.18	4.31			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.33	0.11	3.22	28.59	42.26			N/A	N/A
	2 - Grovehurst Road	0.46	0.03	0.25	0.46	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.25	0.72	0.72			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.00	0.03	0.26	1.00	1.00			N/A	N/A
	3 - A249 offslip (SB)	1.05	0.03	0.26	1.05	1.05			N/A	N/A
	4 - Swale Way	128.99	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.62	0.03	0.31	3.31	12.58			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker



1 - North	1 - A249 offslip (NB)	12.74	0.07	1.53	37.40	61.01			N/A	N/A
	2 - Grovehurst Road	0.48	0.03	0.32	1.44	1.93			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.27	0.72	1.07			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.04	0.03	0.27	1.04	1.43			N/A	N/A
	3 - A249 offslip (SB)	1.10	0.03	0.28	1.10	3.75			N/A	N/A
	4 - Swale Way	231.22	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.68	0.03	0.28	2.68	6.94			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.26	0.04	0.41	8.90	16.65			N/A	N/A
	2 - Grovehurst Road	0.31	0.00	0.00	0.31	0.31			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.65	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.77	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.60	0.10	0.83	1.37	1.43			N/A	N/A
	4 - Swale Way	250.75	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.76	0.05	0.65	4.50	6.84			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.65	0.03	0.31	2.56	8.29			N/A	N/A
	2 - Grovehurst Road	0.21	0.00	0.00	0.21	0.21			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.54	0.54	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.38	0.03	0.30	0.94	1.22			N/A	N/A
	4 - Swale Way	207.44	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.26	0.05	0.45	3.15	4.97			N/A	N/A

# 2024 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	26.11	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	96.02	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	906	100.000
	2 - Grovehurst Road		ONE HOUR	✓	446	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	593	100.000
	4 - Swale Way		ONE HOUR	✓	694	100.000

5 - Grovehurst Road	ONE HOUR	✓	736	100.000
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## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	45	0	861
		2 - Grovehurst Road	0	0	25	421
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	151	366	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	144	0	0	910	225
		3 - A249 offslip (SB)	1	18	0	377	197
		4 - Swale Way	391	226	0	0	77
		5 - Grovehurst Road	287	277	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	13	0	17
		2 - Grovehurst Road	0	0	8	4
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	6	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	16	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	39	10	0	0	9
		5 - Grovehurst Road	1	1	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.93	38.63	10.0	53.6	E	831	1247
	2 - Grovehurst Road	0.77	24.53	3.2	15.8	C	409	614
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.34	3.23	0.5	2.3	A	476	714
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.76	8.03	3.1	6.7	A	1176	1764
	3 - A249 offslip (SB)	1.36	436.58	84.8	125.4	F	544	816
	4 - Swale Way	0.81	19.27	3.9	20.3	C	637	955
	5 - Grovehurst Road	0.97	66.27	14.4	61.3	F	675	1013

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	682	171	387	1205	0.566	677	0	0.0	1.3	6.752	A
	2 - Grovehurst Road	336	84	917	966	0.348	334	147	0.0	0.5	5.674	A
	3 - A249 onslip (NB)			958				292				
	4 - B2005 - link	388	97	0	1674	0.232	387	958	0.0	0.3	2.794	A
2 - South	1 - A249 onslip (SB)			518				615				
	2 - B2005 - link	959	240	128	1886	0.509	955	389	0.0	1.0	3.850	A
	3 - A249 offslip (SB)	446	112	1083	921	0.485	443	0	0.0	0.9	7.475	A
	4 - Swale Way	522	131	437	1033	0.506	518	1089	0.0	1.0	6.948	A
	5 - Grovehurst Road	554	139	583	1067	0.519	550	373	0.0	1.1	6.902	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	814	204	464	1147	0.710	810	0	1.3	2.4	10.559	B
	2 - Grovehurst Road	401	100	1098	823	0.487	399	176	0.5	0.9	8.457	A
	3 - A249 onslip (NB)			1147				351				
	4 - B2005 - link	464	116	0	1674	0.277	464	1147	0.3	0.4	2.975	A
2 - South	1 - A249 onslip (SB)			619				736				
	2 - B2005 - link	1148	287	154	1870	0.614	1145	466	1.0	1.6	4.951	A
	3 - A249 offslip (SB)	533	133	1299	732	0.728	527	0	0.9	2.5	17.013	C
	4 - Swale Way	624	156	522	982	0.635	621	1303	1.0	1.7	9.897	A
	5 - Grovehurst Road	662	165	698	968	0.684	658	445	1.1	2.1	11.462	B

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	998	249	552	1081	0.923	973	0	2.4	8.4	28.757	D
	2 - Grovehurst Road	491	123	1316	652	0.753	484	209	0.9	2.8	20.547	C
	3 - A249 onslip (NB)			1382				418				
	4 - B2005 - link	552	138	0	1674	0.330	552	1382	0.4	0.5	3.207	A
2 - South	1 - A249 onslip (SB)			735				884				
	2 - B2005 - link	1382	346	181	1853	0.746	1377	553	1.6	2.8	7.477	A
	3 - A249 offslip (SB)	653	163	1558	506	1.291	498	0	2.5	41.1	176.389	F
	4 - Swale Way	764	191	579	949	0.805	756	1478	1.7	3.8	17.919	C
	5 - Grovehurst Road	810	203	843	842	0.963	776	492	2.1	10.6	42.107	E

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	998	249	561	1074	0.929	991	0	8.4	10.0	38.634	E
	2 - Grovehurst Road	491	123	1339	634	0.775	489	213	2.8	3.2	24.527	C
	3 - A249 onslip (NB)			1404				424				
	4 - B2005 - link	561	140	0	1674	0.335	561	1404	0.5	0.5	3.233	A
2 - South	1 - A249 onslip (SB)			748				899				
	2 - B2005 - link	1404	351	186	1851	0.759	1404	562	2.8	3.1	8.027	A
	3 - A249 offslip (SB)	653	163	1589	479	1.364	478	0	41.1	84.8	436.584	F
	4 - Swale Way	764	191	579	949	0.806	763	1489	3.8	3.9	19.267	C
	5 - Grovehurst Road	810	203	852	834	0.972	795	491	10.6	14.4	66.267	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	814	204	491	1126	0.723	844	0	10.0	2.7	13.937	B
	2 - Grovehurst Road	401	100	1150	783	0.512	409	185	3.2	1.1	9.835	A
	3 - A249 onslip (NB)			1188				371				
	4 - B2005 - link	491	123	0	1674	0.293	491	1188	0.5	0.4	3.044	A

2 - South	1 - A249 onslip (SB)			659				768				
	2 - B2005 - link	1189	297	166	1863	0.638	1194	493	3.1	1.8	5.425	A
	3 - A249 offslip (SB)	533	133	1360	679	0.785	671	0	84.8	50.2	351.671	F
	4 - Swale Way	624	156	589	943	0.662	632	1442	3.9	2.0	11.836	B
	5 - Grovehurst Road	662	165	717	952	0.695	710	503	14.4	2.4	17.612	C

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	682	171	400	1195	0.571	688	0	2.7	1.4	7.171	A
	2 - Grovehurst Road	336	84	937	951	0.353	338	151	1.1	0.6	5.894	A
	3 - A249 onslip (NB)			972				302				
	4 - B2005 - link	400	100	0	1674	0.239	400	972	0.4	0.3	2.827	A
2 - South	1 - A249 onslip (SB)			532				625				
	2 - B2005 - link	973	243	131	1884	0.516	976	401	1.8	1.1	3.976	A
	3 - A249 offslip (SB)	446	112	1107	900	0.496	643	0	50.2	1.0	32.765	D
	4 - Swale Way	522	131	516	986	0.530	526	1234	2.0	1.1	7.884	A
	5 - Grovehurst Road	554	139	598	1055	0.525	559	444	2.4	1.1	7.338	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.28	0.56	1.18	1.65	1.84			N/A	N/A
	2 - Grovehurst Road	0.53	0.53	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.03	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.93	0.04	0.42	2.16	3.48			N/A	N/A
	4 - Swale Way	1.01	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	1.06	0.50	1.05	1.26	1.64			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.36	0.05	0.67	6.36	9.95			N/A	N/A
	2 - Grovehurst Road	0.93	0.06	0.69	1.80	2.51			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.57	0.05	0.52	3.95	6.10			N/A	N/A
	3 - A249 offslip (SB)	2.50	0.04	0.40	6.78	12.57			N/A	N/A
	4 - Swale Way	1.69	0.06	0.91	4.01	5.85			N/A	N/A
	5 - Grovehurst Road	2.08	0.05	0.49	5.59	8.90			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	8.38	0.06	1.42	24.32	39.46			N/A	N/A
	2 - Grovehurst Road	2.79	0.03	0.32	5.12	14.71			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.49	0.03	0.25	0.49	0.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.84	0.03	0.28	2.84	6.72			N/A	N/A
	3 - A249 offslip (SB)	41.14	19.01	38.75	61.19	68.81			N/A	N/A
	4 - Swale Way	3.76	0.03	0.34	7.63	20.25			N/A	N/A
	5 - Grovehurst Road	10.62	0.14	4.26	28.31	40.49			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or	Probability of exactly reaching
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									exceeding marker	marker
1 - North	1 - A249 offslip (NB)	10.02	0.05	0.46	28.03	53.60			N/A	N/A
	2 - Grovehurst Road	3.19	0.03	0.31	4.46	15.76			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.03	0.30	1.38	2.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	3.06	0.03	0.27	3.06	3.06			N/A	N/A
	3 - A249 offslip (SB)	84.79	50.30	82.22	114.83	125.42			N/A	N/A
	4 - Swale Way	3.94	0.03	0.29	3.94	15.64			N/A	N/A
	5 - Grovehurst Road	14.39	0.11	3.97	40.76	61.34			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.74	0.04	0.43	7.57	13.49			N/A	N/A
	2 - Grovehurst Road	1.07	0.05	0.55	2.40	3.51			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.42	0.00	0.00	0.42	0.42			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.79	0.10	1.28	3.74	4.98			N/A	N/A
	3 - A249 offslip (SB)	50.20	29.92	48.53	67.46	73.59			N/A	N/A
	4 - Swale Way	2.02	0.05	0.69	5.30	8.14			N/A	N/A
	5 - Grovehurst Road	2.39	0.04	0.38	6.30	12.31			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.35	0.03	0.31	2.00	6.73			N/A	N/A
	2 - Grovehurst Road	0.55	0.03	0.33	1.14	2.36			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.32	0.00	0.00	0.32	0.32			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.08	0.05	0.47	2.54	3.83			N/A	N/A
	3 - A249 offslip (SB)	1.01	0.03	0.26	1.01	1.01			N/A	N/A
	4 - Swale Way	1.15	0.04	0.36	2.85	5.47			N/A	N/A
	5 - Grovehurst Road	1.13	0.03	0.29	1.28	4.65			N/A	N/A

# 2024 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	53.26	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	406.02	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	899	100.000
	2 - Grovehurst Road		ONE HOUR	✓	235	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	482	100.000
	4 - Swale Way		ONE HOUR	✓	1278	100.000

5 - Grovehurst Road	ONE HOUR	✓	595	100.000
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## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	183	0	716
		2 - Grovehurst Road	0	0	27	208
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	264	541	0	

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	45	0	0	482	393
		3 - A249 offslip (SB)	1	27	0	199	255
		4 - Swale Way	687	432	0	0	159
	5 - Grovehurst Road	150	339	0	106	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	2	0	20
		2 - Grovehurst Road	0	0	0	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0	

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	9	0	0	29	2
		3 - A249 offslip (SB)	0	11	0	8	3
		4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	1	2	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.02	99.38	28.1	83.3	F	825	1237
	2 - Grovehurst Road	0.36	7.70	0.5	2.5	A	216	323
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.42	3.59	0.7	1.5	A	676	1014
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.54	4.24	1.1	1.5	A	843	1264
	3 - A249 offslip (SB)	0.60	9.94	1.4	4.1	A	442	663
	4 - Swale Way	1.49	1013.76	302.7	302.7	F	1173	1759
	5 - Grovehurst Road	0.77	18.32	3.2	16.5	C	546	819



## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	677	169	593	1068	0.634	670	0	0.0	1.7	8.913	A
	2 - Grovehurst Road	177	44	932	984	0.180	176	331	0.0	0.2	4.453	A
	3 - A249 onslip (NB)			689				419				
	4 - B2005 - link	595	149	0	1730	0.344	593	689	0.0	0.5	3.163	A
2 - South	1 - A249 onslip (SB)			670				651				
	2 - B2005 - link	686	172	79	1853	0.370	684	591	0.0	0.6	3.073	A
	3 - A249 offslip (SB)	363	91	763	1198	0.303	361	0	0.0	0.4	4.291	A
	4 - Swale Way	962	241	538	1105	0.871	939	586	0.0	5.7	19.676	C
	5 - Grovehurst Road	448	112	877	873	0.513	444	600	0.0	1.0	8.305	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	808	202	677	1006	0.803	800	0	1.7	3.7	16.794	C
	2 - Grovehurst Road	211	53	1092	855	0.247	211	385	0.2	0.3	5.588	A
	3 - A249 onslip (NB)			824				479				
	4 - B2005 - link	677	169	0	1730	0.391	677	824	0.5	0.6	3.416	A
2 - South	1 - A249 onslip (SB)			766				723				
	2 - B2005 - link	820	205	95	1844	0.445	819	672	0.6	0.8	3.509	A
	3 - A249 offslip (SB)	433	108	914	1060	0.409	432	0	0.4	0.7	5.721	A
	4 - Swale Way	1149	287	644	1035	1.110	1019	702	5.7	38.1	91.050	F
	5 - Grovehurst Road	535	134	958	810	0.660	532	705	1.0	1.9	12.773	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	990	247	727	969	1.021	930	0	3.7	18.6	56.635	F
	2 - Grovehurst Road	259	65	1230	741	0.349	258	428	0.3	0.5	7.434	A
	3 - A249 onslip (NB)			969				518				
	4 - B2005 - link	727	182	0	1730	0.421	727	969	0.6	0.7	3.591	A
2 - South	1 - A249 onslip (SB)			838				724				
	2 - B2005 - link	963	241	116	1831	0.526	962	722	0.8	1.1	4.135	A
	3 - A249 offslip (SB)	531	133	1078	911	0.583	528	0	0.7	1.4	9.338	A
	4 - Swale Way	1407	352	768	953	1.477	952	838	38.1	151.8	367.814	F
	5 - Grovehurst Road	655	164	912	847	0.774	650	809	1.9	3.2	17.822	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	990	247	728	969	1.022	952	0	18.6	28.1	99.385	F
	2 - Grovehurst Road	259	65	1248	726	0.356	259	433	0.5	0.5	7.699	A
	3 - A249 onslip (NB)			987				519				
	4 - B2005 - link	728	182	0	1730	0.421	728	987	0.7	0.7	3.593	A
2 - South	1 - A249 onslip (SB)			839				723				
	2 - B2005 - link	982	245	117	1831	0.536	981	722	1.1	1.1	4.238	A
	3 - A249 offslip (SB)	531	133	1098	892	0.595	530	0	1.4	1.4	9.944	A
	4 - Swale Way	1407	352	779	946	1.488	946	850	151.8	267.1	779.426	F
	5 - Grovehurst Road	655	164	907	850	0.770	655	818	3.2	3.2	18.323	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	808	202	678	1005	0.804	902	0	28.1	4.7	48.804	E
	2 - Grovehurst Road	211	53	1174	785	0.269	212	406	0.5	0.4	6.289	A
	3 - A249 onslip (NB)			906				480				
	4 - B2005 - link	678	169	0	1730	0.392	678	906	0.7	0.6	3.425	A

2 - South	1 - A249 onslip (SB)			768				722					
	2 - B2005 - link	904	226	96	1843	0.491		905	672	1.1	1.0	3.840	A
	3 - A249 offslip (SB)	433	108	1001	980	0.442		436	0	1.4	0.8	6.649	A
	4 - Swale Way	1149	287	687	1007	1.141		1007	750	267.1	302.7	1013.763	F
	5 - Grovehurst Road	535	134	951	815	0.656		540	742	3.2	2.0	13.298	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	677	169	652	1024	0.661	688	0	4.7	2.0	11.012	B
	2 - Grovehurst Road	177	44	986	943	0.188	177	354	0.4	0.2	4.706	A
	3 - A249 onslip (NB)			705				459				
	4 - B2005 - link	652	163	0	1730	0.377	652	705	0.6	0.6	3.343	A
2 - South	1 - A249 onslip (SB)			727				737				
	2 - B2005 - link	702	175	80	1852	0.379	703	647	1.0	0.6	3.138	A
	3 - A249 offslip (SB)	363	91	783	1180	0.308	364	0	0.8	0.4	4.424	A
	4 - Swale Way	962	241	549	1098	0.877	1094	599	302.7	269.8	942.214	F
	5 - Grovehurst Road	448	112	1013	766	0.585	450	629	2.0	1.4	11.481	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.69	0.32	1.48	2.70	3.27			N/A	N/A
	2 - Grovehurst Road	0.22	0.00	0.00	0.22	0.22			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.59	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.43	0.00	0.00	0.43	0.43			N/A	N/A
	4 - Swale Way	5.68	0.03	0.28	5.68	14.19			N/A	N/A
	5 - Grovehurst Road	1.03	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.73	0.07	1.37	10.01	14.95			N/A	N/A
	2 - Grovehurst Road	0.33	0.00	0.00	0.33	0.33			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.64	0.22	0.94	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.80	0.10	0.86	1.19	1.19			N/A	N/A
	3 - A249 offslip (SB)	0.68	0.08	0.77	1.38	1.46			N/A	N/A
	4 - Swale Way	38.10	0.84	22.43	93.90	126.65			N/A	N/A
	5 - Grovehurst Road	1.87	0.09	1.23	4.08	5.66			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	18.64	1.19	12.88	41.45	53.56			N/A	N/A
	2 - Grovehurst Road	0.53	0.03	0.25	0.53	0.53			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.25	0.72	0.72			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.10	0.03	0.26	1.10	1.10			N/A	N/A
	3 - A249 offslip (SB)	1.36	0.03	0.27	1.36	1.36			N/A	N/A
	4 - Swale Way	151.77	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.17	0.03	0.32	5.49	16.51			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or	Probability of exactly reaching
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									exceeding marker	marker
1 - North	1 - A249 offslip (NB)	28.06	1.00	19.10	63.97	83.33			N/A	N/A
	2 - Grovehurst Road	0.55	0.03	0.31	1.00	2.51			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.27	0.72	1.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.15	0.03	0.26	1.15	1.15			N/A	N/A
	3 - A249 offslip (SB)	1.44	0.03	0.28	1.44	4.14			N/A	N/A
	4 - Swale Way	267.12	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.24	0.03	0.29	3.24	10.25			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.72	0.04	0.44	13.15	24.33			N/A	N/A
	2 - Grovehurst Road	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.65	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.97	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.80	0.14	0.91	1.42	1.48			N/A	N/A
	4 - Swale Way	302.71	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.98	0.05	0.47	5.35	8.73			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.01	0.03	0.30	2.17	9.31			N/A	N/A
	2 - Grovehurst Road	0.23	0.00	0.00	0.23	0.23			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.61	0.11	0.86	1.37	1.44			N/A	N/A
	3 - A249 offslip (SB)	0.45	0.04	0.38	1.23	1.38			N/A	N/A
	4 - Swale Way	269.76	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.45	0.04	0.42	3.78	6.33			N/A	N/A

# 2024 + WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	29.08	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	102.48	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2024 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	912	100.000
	2 - Grovehurst Road		ONE HOUR	✓	446	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	593	100.000
	4 - Swale Way		ONE HOUR	✓	700	100.000

5 - Grovehurst Road	ONE HOUR	✓	736	100.000
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## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	45	0	867
		2 - Grovehurst Road	0	0	25	421
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	151	366	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	144	0	0	916	225
		3 - A249 offslip (SB)	1	18	0	377	197
		4 - Swale Way	397	226	0	0	77
		5 - Grovehurst Road	287	277	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	13	0	18
		2 - Grovehurst Road	0	0	8	4
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	6	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	17	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	40	10	0	0	9
		5 - Grovehurst Road	1	1	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.94	43.51	11.4	58.6	E	837	1255
	2 - Grovehurst Road	0.79	26.14	3.4	17.3	D	409	614
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.33	3.23	0.5	2.3	A	476	714
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.77	8.31	3.2	7.6	A	1181	1771
	3 - A249 offslip (SB)	1.40	468.61	89.8	130.4	F	544	816
	4 - Swale Way	0.81	20.19	4.2	21.5	C	642	964
	5 - Grovehurst Road	0.98	72.69	16.0	63.9	F	675	1013

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	687	172	387	1195	0.574	681	0	0.0	1.3	6.932	A
	2 - Grovehurst Road	336	84	921	958	0.350	334	147	0.0	0.5	5.745	A
	3 - A249 onslip (NB)			963				292				
	4 - B2005 - link	388	97	0	1674	0.232	387	963	0.0	0.3	2.794	A
2 - South	1 - A249 onslip (SB)			518				619				
	2 - B2005 - link	963	241	128	1873	0.514	959	389	0.0	1.0	3.917	A
	3 - A249 offslip (SB)	446	112	1087	912	0.490	443	0	0.0	0.9	7.613	A
	4 - Swale Way	527	132	437	1027	0.513	523	1093	0.0	1.0	7.080	A
	5 - Grovehurst Road	554	139	587	1061	0.522	550	372	0.0	1.1	6.986	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	820	205	464	1138	0.721	815	0	1.3	2.5	11.011	B
	2 - Grovehurst Road	401	100	1103	814	0.493	399	176	0.5	1.0	8.648	A
	3 - A249 onslip (NB)			1152				351				
	4 - B2005 - link	464	116	0	1674	0.277	464	1152	0.3	0.4	2.975	A
2 - South	1 - A249 onslip (SB)			619				741				
	2 - B2005 - link	1152	288	154	1858	0.620	1150	466	1.0	1.6	5.066	A
	3 - A249 offslip (SB)	533	133	1304	722	0.739	526	0	0.9	2.6	17.839	C
	4 - Swale Way	629	157	522	977	0.644	626	1308	1.0	1.8	10.179	B
	5 - Grovehurst Road	662	165	703	960	0.689	657	445	1.1	2.1	11.734	B

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1004	251	550	1073	0.936	977	0	2.5	9.3	31.201	D
	2 - Grovehurst Road	491	123	1318	643	0.763	483	209	1.0	2.9	21.504	C
	3 - A249 onslip (NB)			1385				416				
	4 - B2005 - link	550	138	0	1674	0.329	550	1385	0.4	0.5	3.203	A
2 - South	1 - A249 onslip (SB)			733				889				
	2 - B2005 - link	1385	346	181	1842	0.752	1379	552	1.6	2.9	7.697	A
	3 - A249 offslip (SB)	653	163	1560	496	1.315	490	0	2.6	43.4	188.504	F
	4 - Swale Way	771	193	574	946	0.815	762	1475	1.8	4.0	18.676	C
	5 - Grovehurst Road	810	203	848	833	0.973	773	488	2.1	11.4	44.686	E

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1004	251	559	1066	0.942	996	0	9.3	11.4	43.513	E
	2 - Grovehurst Road	491	123	1342	624	0.787	489	212	2.9	3.4	26.137	D
	3 - A249 onslip (NB)			1408				423				
	4 - B2005 - link	559	140	0	1674	0.334	559	1408	0.5	0.5	3.229	A
2 - South	1 - A249 onslip (SB)			746				904				
	2 - B2005 - link	1409	352	185	1839	0.766	1408	561	2.9	3.2	8.312	A
	3 - A249 offslip (SB)	653	163	1593	468	1.396	467	0	43.4	89.8	468.609	F
	4 - Swale Way	771	193	574	946	0.815	770	1486	4.0	4.2	20.190	C
	5 - Grovehurst Road	810	203	858	825	0.982	792	486	11.4	16.0	72.693	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	820	205	493	1116	0.735	854	0	11.4	2.9	15.342	C
	2 - Grovehurst Road	401	100	1161	769	0.522	410	186	3.4	1.1	10.279	B
	3 - A249 onslip (NB)			1199				372				
	4 - B2005 - link	493	123	0	1674	0.294	493	1199	0.5	0.4	3.049	A

2 - South	1 - A249 onslip (SB)			662				777				
	2 - B2005 - link	1200	300	167	1850	0.648	1205	495	3.2	1.9	5.625	A
	3 - A249 offslip (SB)	533	133	1372	662	0.805	655	0	89.8	59.3	393.116	F
	4 - Swale Way	629	157	584	940	0.669	638	1442	4.2	2.1	12.184	B
	5 - Grovehurst Road	662	165	723	944	0.701	716	499	16.0	2.5	19.296	C

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	687	172	402	1184	0.580	693	0	2.9	1.4	7.411	A
	2 - Grovehurst Road	336	84	943	942	0.357	338	151	1.1	0.6	5.987	A
	3 - A249 onslip (NB)			978				303				
	4 - B2005 - link	401	100	0	1674	0.240	402	978	0.4	0.3	2.829	A
2 - South	1 - A249 onslip (SB)			533				630				
	2 - B2005 - link	978	244	131	1872	0.522	981	402	1.9	1.1	4.053	A
	3 - A249 offslip (SB)	446	112	1112	890	0.501	680	0	59.3	1.0	53.618	F
	4 - Swale Way	527	132	529	973	0.542	531	1262	2.1	1.2	8.202	A
	5 - Grovehurst Road	554	139	604	1047	0.529	559	456	2.5	1.1	7.456	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.33	0.56	1.23	1.73	1.89			N/A	N/A
	2 - Grovehurst Road	0.53	0.53	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.05	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.94	0.04	0.40	2.28	3.74			N/A	N/A
	4 - Swale Way	1.04	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	1.08	0.43	1.06	1.37	1.70			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.48	0.05	0.71	6.70	10.50			N/A	N/A
	2 - Grovehurst Road	0.95	0.06	0.68	1.86	2.64			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.61	0.05	0.52	4.08	6.34			N/A	N/A
	3 - A249 offslip (SB)	2.63	0.04	0.41	7.14	13.21			N/A	N/A
	4 - Swale Way	1.76	0.06	0.91	4.24	6.16			N/A	N/A
	5 - Grovehurst Road	2.13	0.05	0.49	5.74	9.17			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	9.27	0.08	1.72	26.65	41.58			N/A	N/A
	2 - Grovehurst Road	2.93	0.03	0.33	5.85	15.64			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.49	0.03	0.25	0.49	0.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.93	0.03	0.28	2.93	7.56			N/A	N/A
	3 - A249 offslip (SB)	43.43	20.87	41.09	63.67	71.27			N/A	N/A
	4 - Swale Way	3.96	0.03	0.35	8.57	21.47			N/A	N/A
	5 - Grovehurst Road	11.43	0.18	5.25	29.65	41.57			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or	Probability of exactly reaching
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									exceeding marker	marker
1 - North	1 - A249 offslip (NB)	11.39	0.05	0.89	33.15	58.64			N/A	N/A
	2 - Grovehurst Road	3.39	0.03	0.32	5.30	17.25			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.03	0.30	1.38	2.26			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	3.18	0.03	0.27	3.18	3.18			N/A	N/A
	3 - A249 offslip (SB)	89.78	54.95	87.31	119.88	130.38			N/A	N/A
	4 - Swale Way	4.15	0.03	0.30	4.15	17.40			N/A	N/A
	5 - Grovehurst Road	15.98	0.14	5.85	43.90	63.89			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.92	0.04	0.43	8.07	14.52			N/A	N/A
	2 - Grovehurst Road	1.11	0.05	0.54	2.56	3.75			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.42	0.00	0.00	0.42	0.42			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.88	0.10	1.30	3.94	5.37			N/A	N/A
	3 - A249 offslip (SB)	59.35	37.66	57.74	77.55	83.87			N/A	N/A
	4 - Swale Way	2.10	0.05	0.61	5.58	8.72			N/A	N/A
	5 - Grovehurst Road	2.47	0.04	0.38	6.49	12.80			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.41	0.03	0.30	1.93	6.86			N/A	N/A
	2 - Grovehurst Road	0.56	0.03	0.32	1.15	2.46			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.32	0.00	0.00	0.32	0.32			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.10	0.05	0.46	2.65	4.00			N/A	N/A
	3 - A249 offslip (SB)	1.04	0.03	0.26	1.04	1.04			N/A	N/A
	4 - Swale Way	1.20	0.04	0.36	2.97	5.79			N/A	N/A
	5 - Grovehurst Road	1.14	0.03	0.29	1.20	4.57			N/A	N/A



# 2024 + WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	52.77	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	430.29	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2024 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	901	100.000
	2 - Grovehurst Road		ONE HOUR	✓	235	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	483	100.000
	4 - Swale Way		ONE HOUR	✓	1295	100.000

5 - Grovehurst Road	ONE HOUR	✓	595	100.000
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## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	183	0	718
		2 - Grovehurst Road	0	0	27	208
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	264	542	0	

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	45	0	0	483	393
		3 - A249 offslip (SB)	1	27	0	200	255
		4 - Swale Way	704	432	0	0	159
	5 - Grovehurst Road	150	339	0	106	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	2	0	20
		2 - Grovehurst Road	0	0	0	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0	

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	9	0	0	29	2
		3 - A249 offslip (SB)	0	11	0	8	3
		4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	1	2	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.02	98.13	27.7	82.9	F	827	1240
	2 - Grovehurst Road	0.36	7.70	0.5	2.5	A	216	323
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.42	3.58	0.7	1.5	A	672	1008
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.54	4.25	1.2	1.4	A	845	1267
	3 - A249 offslip (SB)	0.60	10.05	1.5	4.2	B	443	665
	4 - Swale Way	1.51	1067.13	320.7	320.7	F	1188	1782
	5 - Grovehurst Road	0.77	18.41	3.3	16.6	C	546	819

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	678	170	593	1068	0.635	672	0	0.0	1.7	8.936	A
	2 - Grovehurst Road	177	44	934	982	0.180	176	331	0.0	0.2	4.459	A
	3 - A249 onslip (NB)			691				419				
	4 - B2005 - link	595	149	0	1730	0.344	593	691	0.0	0.5	3.161	A
2 - South	1 - A249 onslip (SB)			669				663				
	2 - B2005 - link	688	172	79	1853	0.371	685	590	0.0	0.6	3.077	A
	3 - A249 offslip (SB)	364	91	764	1197	0.304	362	0	0.0	0.4	4.302	A
	4 - Swale Way	975	244	538	1104	0.883	950	588	0.0	6.2	20.927	C
	5 - Grovehurst Road	448	112	888	864	0.518	444	600	0.0	1.1	8.485	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	810	202	672	1009	0.802	802	0	1.7	3.7	16.715	C
	2 - Grovehurst Road	211	53	1091	855	0.247	211	383	0.2	0.3	5.586	A
	3 - A249 onslip (NB)			826				476				
	4 - B2005 - link	673	168	0	1730	0.389	672	826	0.5	0.6	3.403	A
2 - South	1 - A249 onslip (SB)			762				730				
	2 - B2005 - link	822	205	95	1843	0.446	821	668	0.6	0.8	3.516	A
	3 - A249 offslip (SB)	434	109	915	1059	0.410	433	0	0.4	0.7	5.746	A
	4 - Swale Way	1164	291	644	1034	1.126	1021	704	6.2	42.1	98.910	F
	5 - Grovehurst Road	535	134	960	807	0.663	532	704	1.1	1.9	12.905	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	992	248	722	973	1.020	933	0	3.7	18.5	56.128	F
	2 - Grovehurst Road	259	65	1229	741	0.349	258	426	0.3	0.5	7.437	A
	3 - A249 onslip (NB)			972				515				
	4 - B2005 - link	723	181	0	1730	0.418	722	972	0.6	0.7	3.574	A
2 - South	1 - A249 onslip (SB)			833				729				
	2 - B2005 - link	966	241	116	1831	0.527	964	717	0.8	1.1	4.148	A
	3 - A249 offslip (SB)	532	133	1080	908	0.586	529	0	0.7	1.4	9.424	A
	4 - Swale Way	1426	356	769	952	1.498	951	841	42.1	160.8	392.780	F
	5 - Grovehurst Road	655	164	912	846	0.775	650	808	1.9	3.2	17.911	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	992	248	723	972	1.021	955	0	18.5	27.7	98.132	F
	2 - Grovehurst Road	259	65	1248	726	0.356	259	431	0.5	0.5	7.704	A
	3 - A249 onslip (NB)			990				516				
	4 - B2005 - link	723	181	0	1730	0.418	723	990	0.7	0.7	3.576	A
2 - South	1 - A249 onslip (SB)			834				728				
	2 - B2005 - link	984	246	117	1830	0.538	984	718	1.1	1.2	4.252	A
	3 - A249 offslip (SB)	532	133	1101	889	0.598	531	0	1.4	1.5	10.049	B
	4 - Swale Way	1426	356	779	944	1.510	944	853	160.8	281.1	821.583	F
	5 - Grovehurst Road	655	164	907	849	0.771	655	817	3.2	3.3	18.405	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	810	202	673	1009	0.803	902	0	27.7	4.7	47.553	E
	2 - Grovehurst Road	211	53	1172	786	0.269	212	404	0.5	0.4	6.276	A
	3 - A249 onslip (NB)			907				477				
	4 - B2005 - link	673	168	0	1730	0.389	673	907	0.7	0.6	3.407	A

2 - South	1 - A249 onslip (SB)			764				728				
	2 - B2005 - link	905	226	96	1842	0.491	906	668	1.2	1.0	3.846	A
	3 - A249 offslip (SB)	434	109	1002	979	0.444	437	0	1.5	0.8	6.670	A
	4 - Swale Way	1164	291	687	1006	1.157	1006	752	281.1	320.7	1067.132	F
	5 - Grovehurst Road	535	134	952	814	0.657	540	740	3.3	2.0	13.366	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	678	170	647	1028	0.660	689	0	4.7	2.0	10.929	B
	2 - Grovehurst Road	177	44	984	944	0.187	177	352	0.4	0.2	4.701	A
	3 - A249 onslip (NB)			706				455				
	4 - B2005 - link	647	162	0	1730	0.374	647	706	0.6	0.6	3.327	A
2 - South	1 - A249 onslip (SB)			722				743				
	2 - B2005 - link	703	176	80	1852	0.380	705	641	1.0	0.6	3.143	A
	3 - A249 offslip (SB)	364	91	785	1178	0.309	365	0	0.8	0.4	4.434	A
	4 - Swale Way	975	244	549	1096	0.889	1093	601	320.7	291.2	1008.049	F
	5 - Grovehurst Road	448	112	1014	764	0.586	450	628	2.0	1.5	11.536	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.69	0.34	1.49	2.70	3.26			N/A	N/A
	2 - Grovehurst Road	0.22	0.00	0.00	0.22	0.22			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.59	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.43	0.00	0.00	0.43	0.43			N/A	N/A
	4 - Swale Way	6.19	0.03	0.28	6.19	12.11			N/A	N/A
	5 - Grovehurst Road	1.06	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.72	0.07	1.36	9.98	14.92			N/A	N/A
	2 - Grovehurst Road	0.33	0.00	0.00	0.33	0.33			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.63	0.22	0.93	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.80	0.10	0.86	1.23	1.23			N/A	N/A
	3 - A249 offslip (SB)	0.69	0.08	0.77	1.38	1.46			N/A	N/A
	4 - Swale Way	42.11	0.76	24.00	105.22	142.87			N/A	N/A
	5 - Grovehurst Road	1.89	0.09	1.24	4.13	5.71			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	18.48	1.13	12.69	41.36	53.59			N/A	N/A
	2 - Grovehurst Road	0.53	0.03	0.25	0.53	0.53			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.71	0.03	0.25	0.71	0.71			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.11	0.03	0.26	1.11	1.11			N/A	N/A
	3 - A249 offslip (SB)	1.38	0.03	0.27	1.38	1.38			N/A	N/A
	4 - Swale Way	160.77	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.18	0.03	0.32	5.56	16.62			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or	Probability of exactly reaching
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									exceeding marker	marker
1 - North	1 - A249 offslip (NB)	27.72	1.39	18.66	63.51	82.88			N/A	N/A
	2 - Grovehurst Road	0.55	0.03	0.31	1.00	2.52			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.27	0.72	1.05			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.15	0.03	0.26	1.15	1.15			N/A	N/A
	3 - A249 offslip (SB)	1.46	0.03	0.28	1.46	4.20			N/A	N/A
	4 - Swale Way	281.13	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.25	0.03	0.29	3.25	10.36			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.67	0.04	0.44	13.00	24.11			N/A	N/A
	2 - Grovehurst Road	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.64	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.97	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.81	0.14	0.91	1.42	1.48			N/A	N/A
	4 - Swale Way	320.75	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.99	0.05	0.46	5.38	8.81			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.00	0.03	0.30	2.16	9.26			N/A	N/A
	2 - Grovehurst Road	0.23	0.00	0.00	0.23	0.23			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.62	0.11	0.86	1.37	1.44			N/A	N/A
	3 - A249 offslip (SB)	0.45	0.04	0.38	1.23	1.38			N/A	N/A
	4 - Swale Way	291.23	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.46	0.04	0.42	3.81	6.40			N/A	N/A

# 2024 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	29.42	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	104.15	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	914	100.000
	2 - Grovehurst Road		ONE HOUR	✓	446	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	593	100.000
	4 - Swale Way		ONE HOUR	✓	703	100.000

5 - Grovehurst Road	ONE HOUR	✓	736	100.000
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## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	45	0	869
		2 - Grovehurst Road	0	0	25	421
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	151	366	0	

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	144	0	0	918	225
		3 - A249 offslip (SB)	1	18	0	377	197
		4 - Swale Way	400	226	0	0	77
	5 - Grovehurst Road	287	277	0	172	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	13	0	18
		2 - Grovehurst Road	0	0	8	4
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	6	0	

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	17	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	41	10	0	0	9
	5 - Grovehurst Road	1	1	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.94	44.05	11.6	59.2	E	839	1258
	2 - Grovehurst Road	0.79	26.33	3.4	17.4	D	409	614
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.33	3.23	0.5	2.3	A	476	714
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.77	8.34	3.2	7.7	A	1183	1774
	3 - A249 offslip (SB)	1.40	472.89	90.4	131.0	F	544	816
	4 - Swale Way	0.82	21.06	4.3	22.4	C	645	968
	5 - Grovehurst Road	0.99	77.52	17.2	65.4	F	675	1013

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	688	172	387	1195	0.576	683	0	0.0	1.3	6.952	A
	2 - Grovehurst Road	336	84	923	957	0.351	334	147	0.0	0.5	5.756	A
	3 - A249 onslip (NB)			964				292				
	4 - B2005 - link	388	97	0	1674	0.232	387	964	0.0	0.3	2.794	A
2 - South	1 - A249 onslip (SB)			518				621				
	2 - B2005 - link	964	241	128	1873	0.515	960	389	0.0	1.1	3.924	A
	3 - A249 offslip (SB)	446	112	1089	911	0.490	443	0	0.0	0.9	7.635	A
	4 - Swale Way	529	132	437	1022	0.518	525	1095	0.0	1.1	7.181	A
	5 - Grovehurst Road	554	139	589	1057	0.524	550	372	0.0	1.1	7.045	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	822	205	464	1138	0.722	817	0	1.3	2.5	11.068	B
	2 - Grovehurst Road	401	100	1105	812	0.493	399	176	0.5	1.0	8.677	A
	3 - A249 onslip (NB)			1154				351				
	4 - B2005 - link	464	116	0	1674	0.277	464	1154	0.3	0.4	2.975	A
2 - South	1 - A249 onslip (SB)			619				744				
	2 - B2005 - link	1154	288	154	1858	0.621	1152	466	1.1	1.6	5.079	A
	3 - A249 offslip (SB)	533	133	1305	720	0.740	526	0	0.9	2.6	17.969	C
	4 - Swale Way	632	158	522	972	0.650	629	1310	1.1	1.8	10.394	B
	5 - Grovehurst Road	662	165	706	955	0.693	657	445	1.1	2.2	11.923	B

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1006	252	549	1074	0.937	979	0	2.5	9.4	31.456	D
	2 - Grovehurst Road	491	123	1319	642	0.764	483	209	1.0	2.9	21.619	C
	3 - A249 onslip (NB)			1387				416				
	4 - B2005 - link	549	137	0	1674	0.328	549	1387	0.4	0.5	3.200	A
2 - South	1 - A249 onslip (SB)			731				891				
	2 - B2005 - link	1387	347	180	1842	0.753	1381	551	1.6	2.9	7.722	A
	3 - A249 offslip (SB)	653	163	1561	495	1.319	489	0	2.6	43.7	190.111	F
	4 - Swale Way	774	194	574	942	0.822	765	1476	1.8	4.1	19.354	C
	5 - Grovehurst Road	810	203	851	827	0.979	771	488	2.2	12.0	46.562	E

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1006	252	558	1067	0.943	998	0	9.4	11.6	44.052	E
	2 - Grovehurst Road	491	123	1344	623	0.788	489	212	2.9	3.4	26.331	D
	3 - A249 onslip (NB)			1410				423				
	4 - B2005 - link	558	140	0	1674	0.334	558	1410	0.5	0.5	3.226	A
2 - South	1 - A249 onslip (SB)			744				906				
	2 - B2005 - link	1410	353	185	1839	0.767	1409	560	2.9	3.2	8.343	A
	3 - A249 offslip (SB)	653	163	1594	467	1.399	466	0	43.7	90.4	472.889	F
	4 - Swale Way	774	194	574	942	0.822	773	1486	4.1	4.3	21.056	C
	5 - Grovehurst Road	810	203	861	819	0.990	790	486	12.0	17.2	77.519	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	822	205	495	1114	0.737	856	0	11.6	3.0	15.602	C
	2 - Grovehurst Road	401	100	1164	766	0.524	410	187	3.4	1.1	10.367	B
	3 - A249 onslip (NB)			1201				373				
	4 - B2005 - link	495	124	0	1674	0.295	495	1201	0.5	0.4	3.055	A



2 - South	1 - A249 onslip (SB)			665				782				
	2 - B2005 - link	1202	300	168	1849	0.650	1207	497	3.2	1.9	5.653	A
	3 - A249 offslip (SB)	533	133	1376	659	0.809	652	0	90.4	60.7	399.311	F
	4 - Swale Way	632	158	584	936	0.675	641	1444	4.3	2.2	12.513	B
	5 - Grovehurst Road	662	165	726	938	0.705	720	498	17.2	2.5	20.706	C

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	688	172	402	1184	0.581	694	0	3.0	1.4	7.442	A
	2 - Grovehurst Road	336	84	945	940	0.357	338	152	1.1	0.6	6.000	A
	3 - A249 onslip (NB)			979				303				
	4 - B2005 - link	401	100	0	1674	0.240	402	979	0.4	0.3	2.830	A
2 - South	1 - A249 onslip (SB)			534				633				
	2 - B2005 - link	980	245	131	1872	0.523	983	403	1.9	1.1	4.063	A
	3 - A249 offslip (SB)	446	112	1113	889	0.502	685	0	60.7	1.0	57.673	F
	4 - Swale Way	529	132	531	967	0.547	533	1267	2.2	1.2	8.364	A
	5 - Grovehurst Road	554	139	606	1043	0.531	560	458	2.5	1.2	7.533	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.33	0.55	1.23	1.74	1.90			N/A	N/A
	2 - Grovehurst Road	0.54	0.54	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.05	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.95	0.04	0.40	2.29	3.77			N/A	N/A
	4 - Swale Way	1.06	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	1.08	0.37	1.07	1.43	1.74			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.49	0.05	0.71	6.75	10.58			N/A	N/A
	2 - Grovehurst Road	0.96	0.06	0.68	1.87	2.66			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.62	0.05	0.52	4.11	6.38			N/A	N/A
	3 - A249 offslip (SB)	2.65	0.04	0.41	7.21	13.31			N/A	N/A
	4 - Swale Way	1.80	0.06	0.92	4.38	6.39			N/A	N/A
	5 - Grovehurst Road	2.16	0.05	0.49	5.84	9.37			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	9.39	0.08	1.81	26.90	41.80			N/A	N/A
	2 - Grovehurst Road	2.94	0.03	0.33	5.93	15.74			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.49	0.03	0.25	0.49	0.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.94	0.03	0.28	2.94	7.67			N/A	N/A
	3 - A249 offslip (SB)	43.73	21.12	41.40	64.02	71.64			N/A	N/A
	4 - Swale Way	4.13	0.04	0.35	9.36	22.42			N/A	N/A
	5 - Grovehurst Road	12.03	0.22	5.98	30.58	42.31			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or	Probability of exactly reaching
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									exceeding marker	marker
1 - North	1 - A249 offslip (NB)	11.57	0.06	0.98	33.74	59.20			N/A	N/A
	2 - Grovehurst Road	3.41	0.03	0.32	5.40	17.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.03	0.30	1.38	2.25			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	3.19	0.03	0.27	3.19	3.19			N/A	N/A
	3 - A249 offslip (SB)	90.40	55.52	87.95	120.53	131.01			N/A	N/A
	4 - Swale Way	4.34	0.03	0.30	4.34	18.97			N/A	N/A
	5 - Grovehurst Road	17.21	0.19	7.36	45.97	65.41			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.96	0.04	0.43	8.21	14.70			N/A	N/A
	2 - Grovehurst Road	1.12	0.05	0.54	2.58	3.78			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.42	0.00	0.00	0.42	0.42			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.89	0.10	1.31	3.97	5.42			N/A	N/A
	3 - A249 offslip (SB)	60.72	38.84	59.11	79.05	85.43			N/A	N/A
	4 - Swale Way	2.16	0.05	0.57	5.77	9.09			N/A	N/A
	5 - Grovehurst Road	2.53	0.04	0.38	6.63	13.14			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.41	0.03	0.30	1.92	6.89			N/A	N/A
	2 - Grovehurst Road	0.56	0.03	0.32	1.15	2.47			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.32	0.00	0.00	0.32	0.32			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.11	0.05	0.46	2.66	4.04			N/A	N/A
	3 - A249 offslip (SB)	1.05	0.03	0.26	1.05	1.05			N/A	N/A
	4 - Swale Way	1.23	0.04	0.36	3.02	5.96			N/A	N/A
	5 - Grovehurst Road	1.15	0.03	0.28	1.15	4.49			N/A	N/A

# 2024 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	57.46	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	436.07	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	903	100.000
	2 - Grovehurst Road		ONE HOUR	✓	235	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	482	100.000
	4 - Swale Way		ONE HOUR	✓	1298	100.000

5 - Grovehurst Road	ONE HOUR	✓	595	100.000
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## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	183	0	720
		2 - Grovehurst Road	0	0	27	208
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	264	542	0	

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	45	0	0	486	393
		3 - A249 offslip (SB)	1	27	0	199	255
		4 - Swale Way	706	433	0	0	159
	5 - Grovehurst Road	150	339	0	106	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	2	0	21
		2 - Grovehurst Road	0	0	0	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0	

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	9	0	0	29	2
		3 - A249 offslip (SB)	0	11	0	8	3
		4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	1	2	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.03	106.74	30.6	85.5	F	829	1243
	2 - Grovehurst Road	0.36	7.76	0.6	2.5	A	216	323
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.42	3.58	0.7	1.5	A	672	1008
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.54	4.27	1.2	1.5	A	852	1278
	3 - A249 offslip (SB)	0.60	10.12	1.5	4.2	B	442	663
	4 - Swale Way	1.51	1082.62	325.2	325.2	F	1191	1787
	5 - Grovehurst Road	0.77	18.42	3.3	16.6	C	546	819

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	680	170	593	1060	0.641	673	0	0.0	1.7	9.139	A
	2 - Grovehurst Road	177	44	935	977	0.181	176	331	0.0	0.2	4.489	A
	3 - A249 onslip (NB)			692				419				
	4 - B2005 - link	595	149	0	1730	0.344	593	692	0.0	0.5	3.163	A
2 - South	1 - A249 onslip (SB)			670				664				
	2 - B2005 - link	693	173	79	1852	0.374	691	591	0.0	0.6	3.094	A
	3 - A249 offslip (SB)	363	91	770	1192	0.305	361	0	0.0	0.4	4.327	A
	4 - Swale Way	977	244	540	1102	0.886	952	592	0.0	6.3	21.255	C
	5 - Grovehurst Road	448	112	890	863	0.519	444	602	0.0	1.1	8.512	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	812	203	672	1003	0.810	803	0	1.7	3.9	17.342	C
	2 - Grovehurst Road	211	53	1092	849	0.249	211	383	0.2	0.3	5.636	A
	3 - A249 onslip (NB)			827				476				
	4 - B2005 - link	673	168	0	1730	0.389	672	827	0.5	0.6	3.402	A
2 - South	1 - A249 onslip (SB)			762				730				
	2 - B2005 - link	828	207	95	1843	0.449	827	667	0.6	0.8	3.542	A
	3 - A249 offslip (SB)	433	108	922	1052	0.412	432	0	0.4	0.7	5.797	A
	4 - Swale Way	1167	292	646	1032	1.130	1020	708	6.3	43.1	100.932	F
	5 - Grovehurst Road	535	134	960	807	0.663	532	706	1.1	1.9	12.899	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	994	249	722	966	1.029	930	0	3.9	19.9	59.487	F
	2 - Grovehurst Road	259	65	1227	738	0.351	258	425	0.3	0.5	7.493	A
	3 - A249 onslip (NB)			970				515				
	4 - B2005 - link	723	181	0	1730	0.418	722	970	0.6	0.7	3.574	A
2 - South	1 - A249 onslip (SB)			833				729				
	2 - B2005 - link	970	242	116	1830	0.530	969	717	0.8	1.1	4.171	A
	3 - A249 offslip (SB)	531	133	1084	904	0.587	528	0	0.7	1.4	9.501	A
	4 - Swale Way	1429	357	769	951	1.502	951	843	43.1	162.7	398.322	F
	5 - Grovehurst Road	655	164	912	846	0.775	650	808	1.9	3.2	17.913	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	994	249	723	965	1.030	951	0	19.9	30.6	106.742	F
	2 - Grovehurst Road	259	65	1245	723	0.358	259	430	0.5	0.6	7.757	A
	3 - A249 onslip (NB)			987				516				
	4 - B2005 - link	723	181	0	1730	0.418	723	987	0.7	0.7	3.576	A
2 - South	1 - A249 onslip (SB)			834				728				
	2 - B2005 - link	988	247	117	1830	0.540	988	718	1.1	1.2	4.274	A
	3 - A249 offslip (SB)	531	133	1104	886	0.599	530	0	1.4	1.5	10.119	B
	4 - Swale Way	1429	357	780	944	1.513	944	855	162.7	283.9	831.612	F
	5 - Grovehurst Road	655	164	908	849	0.771	655	816	3.2	3.3	18.418	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	812	203	672	1003	0.809	914	0	30.6	5.0	56.366	F
	2 - Grovehurst Road	211	53	1181	773	0.273	212	405	0.6	0.4	6.420	A
	3 - A249 onslip (NB)			917				476				
	4 - B2005 - link	672	168	0	1730	0.388	672	917	0.7	0.6	3.406	A

2 - South	1 - A249 onslip (SB)			762				727					
	2 - B2005 - link	921	230	96	1842	0.500		922	666	1.2	1.0	3.914	A
	3 - A249 offslip (SB)	433	108	1018	964	0.450		436	0	1.5	0.8	6.851	A
	4 - Swale Way	1167	292	693	1002	1.165		1002	761	283.9	325.2	1082.622	F
	5 - Grovehurst Road	535	134	949	816	0.655		540	745	3.3	2.0	13.265	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	680	170	646	1021	0.666	692	0	5.0	2.1	11.272	B
	2 - Grovehurst Road	177	44	986	938	0.189	178	352	0.4	0.2	4.736	A
	3 - A249 onslip (NB)			709				455				
	4 - B2005 - link	646	162	0	1730	0.374	646	709	0.6	0.6	3.325	A
2 - South	1 - A249 onslip (SB)			721				743				
	2 - B2005 - link	710	178	80	1851	0.384	712	641	1.0	0.6	3.164	A
	3 - A249 offslip (SB)	363	91	792	1172	0.310	364	0	0.8	0.5	4.469	A
	4 - Swale Way	977	244	551	1095	0.893	1091	605	325.2	296.6	1025.694	F
	5 - Grovehurst Road	448	112	1014	765	0.586	450	629	2.0	1.5	11.510	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.74	0.31	1.01	2.81	3.49			N/A	N/A
	2 - Grovehurst Road	0.22	0.00	0.00	0.22	0.22			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.60	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.43	0.00	0.00	0.43	0.43			N/A	N/A
	4 - Swale Way	6.32	0.03	0.28	6.32	11.47			N/A	N/A
	5 - Grovehurst Road	1.06	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.87	0.07	1.43	10.38	15.43			N/A	N/A
	2 - Grovehurst Road	0.33	0.00	0.00	0.33	0.33			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.63	0.22	0.93	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.10	0.86	1.33	1.33			N/A	N/A
	3 - A249 offslip (SB)	0.69	0.08	0.77	1.39	1.46			N/A	N/A
	4 - Swale Way	43.10	0.72	24.27	108.33	147.56			N/A	N/A
	5 - Grovehurst Road	1.89	0.09	1.24	4.13	5.71			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	19.89	1.13	14.35	43.05	55.00			N/A	N/A
	2 - Grovehurst Road	0.53	0.03	0.25	0.53	0.53			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.71	0.03	0.25	0.71	0.71			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.12	0.03	0.26	1.12	1.12			N/A	N/A
	3 - A249 offslip (SB)	1.39	0.03	0.27	1.39	1.43			N/A	N/A
	4 - Swale Way	162.67	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.18	0.03	0.32	5.57	16.62			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or	Probability of exactly reaching
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									exceeding marker	marker
1 - North	1 - A249 offslip (NB)	30.61	1.87	22.15	66.88	85.53			N/A	N/A
	2 - Grovehurst Road	0.55	0.03	0.31	1.00	2.55			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.27	0.72	1.05			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.16	0.03	0.26	1.16	1.16			N/A	N/A
	3 - A249 offslip (SB)	1.46	0.03	0.28	1.46	4.20			N/A	N/A
	4 - Swale Way	283.89	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.26	0.03	0.29	3.26	10.38			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.99	0.04	0.45	14.03	25.67			N/A	N/A
	2 - Grovehurst Road	0.38	0.00	0.00	0.38	0.38			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.64	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.01	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.83	0.15	0.92	1.43	1.49			N/A	N/A
	4 - Swale Way	325.21	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.97	0.05	0.46	5.33	8.76			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.06	0.03	0.30	2.13	9.44			N/A	N/A
	2 - Grovehurst Road	0.23	0.00	0.00	0.23	0.23			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.63	0.12	0.86	1.37	1.44			N/A	N/A
	3 - A249 offslip (SB)	0.45	0.04	0.39	1.24	1.38			N/A	N/A
	4 - Swale Way	296.63	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.45	0.04	0.42	3.80	6.39			N/A	N/A

# 2031, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	16.79	C
2	South	Standard Roundabout	1, 2, 3, 4, 5	61.90	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	861	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	689	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000



## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	819
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	147	327	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	141	0	0	908	183
		3 - A249 offslip (SB)	1	18	0	377	174
		4 - Swale Way	386	226	0	0	77
		5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	7	0	18
		2 - Grovehurst Road	0	0	8	3
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	7	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	16	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	38	10	0	0	9
		5 - Grovehurst Road	1	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.87	23.46	5.9	29.6	C	790	1185
	2 - Grovehurst Road	0.70	17.12	2.2	9.0	C	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.31	3.15	0.5	1.9	A	437	655
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.74	7.34	2.7	5.4	A	1134	1701
	3 - A249 offslip (SB)	1.22	292.82	57.3	97.2	F	523	785
	4 - Swale Way	0.77	15.85	3.2	15.4	C	632	948
	5 - Grovehurst Road	0.80	21.06	3.8	18.9	C	561	841

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	648	162	355	1221	0.531	644	0	0.0	1.1	6.196	A
	2 - Grovehurst Road	331	83	857	1016	0.326	329	142	0.0	0.5	5.230	A
	3 - A249 onslip (NB)			923				264				
	4 - B2005 - link	356	89	0	1664	0.214	355	923	0.0	0.3	2.748	A
2 - South	1 - A249 onslip (SB)			485				549				
	2 - B2005 - link	925	231	129	1885	0.491	921	357	0.0	1.0	3.719	A
	3 - A249 offslip (SB)	429	107	1050	949	0.452	426	0	0.0	0.8	6.842	A
	4 - Swale Way	519	130	386	1069	0.485	515	1089	0.0	0.9	6.454	A
	5 - Grovehurst Road	460	115	577	1070	0.430	457	324	0.0	0.7	5.844	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	774	194	426	1167	0.663	771	0	1.1	1.9	9.022	A
	2 - Grovehurst Road	396	99	1027	879	0.450	394	170	0.5	0.8	7.405	A
	3 - A249 onslip (NB)			1105				317				
	4 - B2005 - link	427	107	0	1664	0.256	426	1105	0.3	0.3	2.909	A
2 - South	1 - A249 onslip (SB)			581				658				
	2 - B2005 - link	1108	277	154	1870	0.592	1106	427	1.0	1.4	4.702	A
	3 - A249 offslip (SB)	512	128	1260	766	0.669	508	0	0.8	1.9	13.725	B
	4 - Swale Way	619	155	463	1024	0.605	617	1305	0.9	1.5	8.792	A
	5 - Grovehurst Road	549	137	692	972	0.565	547	388	0.7	1.3	8.423	A

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	948	237	515	1099	0.862	934	0	1.9	5.4	20.277	C
	2 - Grovehurst Road	484	121	1244	705	0.687	479	205	0.8	2.1	15.612	C
	3 - A249 onslip (NB)			1341				383				
	4 - B2005 - link	516	129	0	1664	0.310	515	1341	0.3	0.4	3.135	A
2 - South	1 - A249 onslip (SB)			703				799				
	2 - B2005 - link	1344	336	187	1850	0.726	1339	516	1.4	2.6	6.989	A
	3 - A249 offslip (SB)	628	157	1526	534	1.175	521	0	1.9	28.7	124.073	F
	4 - Swale Way	759	190	528	986	0.770	752	1518	1.5	3.1	15.000	C
	5 - Grovehurst Road	673	168	839	847	0.795	664	442	1.3	3.5	18.830	C

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	948	237	520	1095	0.865	946	0	5.4	5.9	23.458	C
	2 - Grovehurst Road	484	121	1259	693	0.699	484	208	2.1	2.2	17.124	C
	3 - A249 onslip (NB)			1356				386				
	4 - B2005 - link	520	130	0	1664	0.313	520	1356	0.4	0.5	3.148	A
2 - South	1 - A249 onslip (SB)			710				808				
	2 - B2005 - link	1360	340	189	1848	0.736	1359	521	2.6	2.7	7.344	A
	3 - A249 offslip (SB)	628	157	1548	515	1.220	513	0	28.7	57.3	292.817	F
	4 - Swale Way	759	190	531	984	0.771	758	1530	3.1	3.2	15.848	C
	5 - Grovehurst Road	673	168	846	840	0.800	672	443	3.5	3.8	21.057	C

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	774	194	441	1156	0.670	789	0	5.9	2.1	10.198	B
	2 - Grovehurst Road	396	99	1055	857	0.461	401	175	2.2	0.9	7.981	A
	3 - A249 onslip (NB)			1129				327				
	4 - B2005 - link	440	110	0	1664	0.265	441	1129	0.5	0.4	2.944	A
	1 - A249 onslip (SB)			598				670				

2 - South	2 - B2005 - link	1132	283	157	1868	0.606	1136	441	2.7	1.6	4.955	A
	3 - A249 offslip (SB)	512	128	1294	736	0.696	724	0	57.3	4.4	161.524	F
	4 - Swale Way	619	155	544	976	0.634	625	1474	3.2	1.8	10.418	B
	5 - Grovehurst Road	549	137	710	958	0.573	559	460	3.8	1.4	9.219	A

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	648	162	361	1216	0.533	652	0	2.1	1.2	6.425	A
	2 - Grovehurst Road	331	83	869	1006	0.329	333	144	0.9	0.5	5.358	A
	3 - A249 onslip (NB)			934				268				
	4 - B2005 - link	361	90	0	1664	0.217	361	934	0.4	0.3	2.764	A
2 - South	1 - A249 onslip (SB)			492				557				
	2 - B2005 - link	936	234	130	1884	0.497	939	362	1.6	1.0	3.817	A
	3 - A249 offslip (SB)	429	107	1069	932	0.460	443	0	4.4	0.9	7.566	A
	4 - Swale Way	519	130	397	1063	0.488	522	1115	1.8	1.0	6.691	A
	5 - Grovehurst Road	460	115	586	1063	0.433	462	333	1.4	0.8	6.019	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.12	0.55	1.02	1.44	1.49			N/A	N/A
	2 - Grovehurst Road	0.48	0.00	0.00	0.48	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.96	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.81	0.05	0.59	1.55	2.00			N/A	N/A
	4 - Swale Way	0.93	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	0.75	0.55	1.00	1.40	1.45			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.92	0.05	0.63	4.97	7.71			N/A	N/A
	2 - Grovehurst Road	0.81	0.06	0.73	1.29	1.76			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.44	0.05	0.56	3.55	5.37			N/A	N/A
	3 - A249 offslip (SB)	1.93	0.04	0.39	5.13	9.57			N/A	N/A
	4 - Swale Way	1.49	0.06	0.89	3.43	4.86			N/A	N/A
	5 - Grovehurst Road	1.27	0.06	0.68	2.89	4.24			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	5.39	0.04	0.40	14.02	29.14			N/A	N/A
	2 - Grovehurst Road	2.08	0.03	0.29	2.08	8.62			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.58	0.03	0.27	2.58	4.65			N/A	N/A
	3 - A249 offslip (SB)	28.70	9.41	25.90	47.32	54.97			N/A	N/A
	4 - Swale Way	3.12	0.03	0.31	4.28	15.35			N/A	N/A
	5 - Grovehurst Road	3.51	0.03	0.34	7.17	18.88			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	5.85	0.03	0.32	8.82	29.63			N/A	N/A
	2 - Grovehurst Road	2.23	0.03	0.29	2.23	9.00			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.31	1.38	1.88			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.72	0.03	0.27	2.72	2.72			N/A	N/A
	3 - A249 offslip (SB)	57.28	25.95	53.99	86.24	97.22			N/A	N/A
	4 - Swale Way	3.24	0.03	0.28	3.24	9.84			N/A	N/A
	5 - Grovehurst Road	3.77	0.03	0.30	3.77	16.88			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.09	0.04	0.44	5.71	9.63			N/A	N/A
	2 - Grovehurst Road	0.87	0.06	0.67	1.64	2.15			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.56	0.10	1.19	3.00	4.02			N/A	N/A
	3 - A249 offslip (SB)	4.38	0.05	0.50	12.50	21.20			N/A	N/A
	4 - Swale Way	1.79	0.06	0.92	4.33	6.31			N/A	N/A
	5 - Grovehurst Road	1.37	0.05	0.47	3.46	5.37			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.16	0.03	0.32	2.42	5.88			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.35	1.44	1.65			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.00	0.05	0.50	2.15	3.18			N/A	N/A
	3 - A249 offslip (SB)	0.87	0.03	0.26	0.87	0.87			N/A	N/A
	4 - Swale Way	0.97	0.04	0.37	2.39	4.30			N/A	N/A
	5 - Grovehurst Road	0.77	0.03	0.33	1.74	3.63			N/A	N/A

# 2031, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	26.30	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	296.86	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	825	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	443	100.000
	4 - Swale Way		ONE HOUR	✓	1276	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	645
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	262	522	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	42	0	0	477	322
		3 - A249 offslip (SB)	1	27	0	199	216
		4 - Swale Way	685	432	0	0	159
	5 - Grovehurst Road	110	318	0	106	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	1	0	21
		2 - Grovehurst Road	0	0	0	1
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	4	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	28	1
		3 - A249 offslip (SB)	0	11	0	8	4
		4 - Swale Way	18	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.94	48.69	11.5	57.5	E	757	1136
	2 - Grovehurst Road	0.32	6.87	0.5	1.9	A	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.42	3.63	0.7	1.5	A	674	1011
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.50	3.96	1.0	1.5	A	774	1161
	3 - A249 offslip (SB)	0.52	7.94	1.1	3.7	A	407	610
	4 - Swale Way	1.37	703.33	224.0	224.0	F	1171	1756
	5 - Grovehurst Road	0.73	16.62	2.6	12.4	C	490	735

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	621	155	576	1075	0.578	616	0	0.0	1.3	7.756	A
	2 - Grovehurst Road	171	43	865	1042	0.164	170	327	0.0	0.2	4.125	A
	3 - A249 onslip (NB)			631				404				
	4 - B2005 - link	578	145	0	1719	0.336	576	631	0.0	0.5	3.146	A
2 - South	1 - A249 onslip (SB)			656				621				
	2 - B2005 - link	631	158	79	1855	0.340	629	577	0.0	0.5	2.931	A
	3 - A249 offslip (SB)	334	83	708	1242	0.269	332	0	0.0	0.4	3.950	A
	4 - Swale Way	961	240	455	1167	0.823	944	585	0.0	4.2	15.169	C
	5 - Grovehurst Road	402	101	878	878	0.458	399	520	0.0	0.8	7.458	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	742	185	672	1004	0.739	736	0	1.3	2.7	13.189	B
	2 - Grovehurst Road	204	51	1023	913	0.224	204	385	0.2	0.3	5.074	A
	3 - A249 onslip (NB)			755				472				
	4 - B2005 - link	673	168	0	1719	0.391	672	755	0.5	0.6	3.438	A
2 - South	1 - A249 onslip (SB)			766				712				
	2 - B2005 - link	754	189	95	1846	0.409	754	671	0.5	0.7	3.295	A
	3 - A249 offslip (SB)	398	100	848	1114	0.357	398	0	0.4	0.6	5.018	A
	4 - Swale Way	1147	287	545	1107	1.036	1072	701	4.2	23.0	58.576	F
	5 - Grovehurst Road	480	120	1001	782	0.614	477	616	0.8	1.5	11.691	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	908	227	727	963	0.943	881	0	2.7	9.5	35.451	E
	2 - Grovehurst Road	250	62	1173	788	0.317	249	435	0.3	0.5	6.677	A
	3 - A249 onslip (NB)			908				514				
	4 - B2005 - link	727	182	0	1719	0.423	727	908	0.6	0.7	3.630	A
2 - South	1 - A249 onslip (SB)			842				720				
	2 - B2005 - link	907	227	116	1833	0.495	906	726	0.7	1.0	3.876	A
	3 - A249 offslip (SB)	488	122	1021	957	0.510	486	0	0.6	1.0	7.607	A
	4 - Swale Way	1405	351	660	1032	1.362	1030	848	23.0	116.6	253.022	F
	5 - Grovehurst Road	588	147	978	801	0.734	584	712	1.5	2.6	16.228	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	908	227	728	962	0.944	900	0	9.5	11.5	48.690	E
	2 - Grovehurst Road	250	62	1189	774	0.323	250	440	0.5	0.5	6.870	A
	3 - A249 onslip (NB)			924				515				
	4 - B2005 - link	728	182	0	1719	0.424	728	924	0.7	0.7	3.634	A
2 - South	1 - A249 onslip (SB)			844				719				
	2 - B2005 - link	923	231	117	1833	0.504	923	727	1.0	1.0	3.957	A
	3 - A249 offslip (SB)	488	122	1040	941	0.519	488	0	1.0	1.1	7.942	A
	4 - Swale Way	1405	351	668	1026	1.369	1026	859	116.6	211.3	566.743	F
	5 - Grovehurst Road	588	147	975	804	0.732	588	719	2.6	2.6	16.624	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	742	185	685	994	0.746	775	0	11.5	3.1	18.591	C
	2 - Grovehurst Road	204	51	1062	880	0.232	205	398	0.5	0.3	5.337	A
	3 - A249 onslip (NB)			786				481				
	4 - B2005 - link	685	171	0	1719	0.398	685	786	0.7	0.7	3.482	A
	1 - A249 onslip (SB)			780				728				

2 - South	2 - B2005 - link	787	197	96	1845	0.427	788	684	1.0	0.7	3.408	A
	3 - A249 offslip (SB)	398	100	884	1082	0.368	400	0	1.1	0.6	5.296	A
	4 - Swale Way	1147	287	561	1097	1.046	1096	723	211.3	224.0	703.325	F
	5 - Grovehurst Road	480	120	1024	764	0.628	484	633	2.6	1.7	12.983	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	621	155	654	1017	0.611	627	0	3.1	1.6	9.369	A
	2 - Grovehurst Road	171	43	926	996	0.172	171	355	0.3	0.2	4.369	A
	3 - A249 onslip (NB)			641				456				
	4 - B2005 - link	654	164	0	1719	0.381	654	641	0.7	0.6	3.384	A
2 - South	1 - A249 onslip (SB)			733				737				
	2 - B2005 - link	641	160	80	1854	0.346	642	653	0.7	0.5	2.973	A
	3 - A249 offslip (SB)	334	83	722	1229	0.271	334	0	0.6	0.4	4.028	A
	4 - Swale Way	961	240	462	1162	0.827	1157	594	224.0	175.0	621.329	F
	5 - Grovehurst Road	402	101	1066	731	0.550	404	553	1.7	1.3	11.073	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.34	0.55	1.25	1.77	1.93			N/A	N/A
	2 - Grovehurst Road	0.20	0.00	0.00	0.20	0.20			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	4 - Swale Way	4.23	0.03	0.32	6.32	21.34			N/A	N/A
	5 - Grovehurst Road	0.83	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.68	0.06	0.98	7.13	10.83			N/A	N/A
	2 - Grovehurst Road	0.29	0.00	0.00	0.29	0.29			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.64	0.21	0.93	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.69	0.10	0.84	1.37	1.44			N/A	N/A
	3 - A249 offslip (SB)	0.55	0.06	0.69	1.34	1.42			N/A	N/A
	4 - Swale Way	22.97	0.59	13.71	55.76	74.83			N/A	N/A
	5 - Grovehurst Road	1.54	0.09	1.14	3.07	4.16			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	9.54	0.09	2.39	26.93	40.78			N/A	N/A
	2 - Grovehurst Road	0.46	0.03	0.25	0.46	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.73	0.03	0.25	0.73	0.73			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.97	0.03	0.25	0.97	0.97			N/A	N/A
	3 - A249 offslip (SB)	1.02	0.03	0.26	1.02	1.02			N/A	N/A
	4 - Swale Way	116.58	65.58	112.68	162.06	178.27			N/A	N/A
	5 - Grovehurst Road	2.59	0.03	0.31	3.16	12.36			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker



1 - North	1 - A249 offslip (NB)	11.52	0.06	1.23	33.69	57.50			N/A	N/A
	2 - Grovehurst Road	0.47	0.03	0.32	1.43	1.89			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.73	0.03	0.27	0.73	1.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.01	0.03	0.27	1.01	1.50			N/A	N/A
	3 - A249 offslip (SB)	1.06	0.03	0.28	1.06	3.69			N/A	N/A
	4 - Swale Way	211.29	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.65	0.03	0.28	2.65	6.82			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.12	0.04	0.41	8.56	15.86			N/A	N/A
	2 - Grovehurst Road	0.30	0.00	0.00	0.30	0.30			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.67	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.75	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.59	0.09	0.82	1.36	1.43			N/A	N/A
	4 - Swale Way	224.03	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.75	0.05	0.70	4.42	6.67			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.61	0.03	0.31	2.64	8.17			N/A	N/A
	2 - Grovehurst Road	0.21	0.00	0.00	0.21	0.21			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.62	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.37	0.03	0.30	0.85	1.17			N/A	N/A
	4 - Swale Way	174.95	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.25	0.05	0.46	3.08	4.85			N/A	N/A

# 2031 + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	231.61	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	474.02	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D21	2031 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1107	100.000
	2 - Grovehurst Road		ONE HOUR	✓	737	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	620	100.000
	4 - Swale Way		ONE HOUR	✓	766	100.000
	5 - Grovehurst Road		ONE HOUR	✓	774	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	123	0	984
		2 - Grovehurst Road	0	0	38	699
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	159	403	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	419	0	0	1031	231
		3 - A249 offslip (SB)	1	22	0	381	216
		4 - Swale Way	459	229	0	0	78
	5 - Grovehurst Road	289	313	0	172	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	2	0	16
		2 - Grovehurst Road	0	0	5	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	6	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	16	5
		3 - A249 offslip (SB)	0	5	0	9	3
		4 - Swale Way	36	10	0	0	9
	5 - Grovehurst Road	1	1	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.07	147.69	54.4	114.5	F	1016	1524
	2 - Grovehurst Road	1.30	544.11	104.0	156.9	F	676	1014
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.31	3.10	0.4	1.9	A	491	737
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.84	11.50	5.0	23.4	B	1509	2263
	3 - A249 offslip (SB)	1.83	2154.65	244.5	187.3	F	569	853
	4 - Swale Way	0.99	77.33	17.6	67.9	F	703	1054
	5 - Grovehurst Road	1.38	612.87	124.1	180.3	F	710	1065

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	833	208	416	1208	0.690	825	0	0.0	2.2	9.207	A
	2 - Grovehurst Road	555	139	1031	898	0.618	549	209	0.0	1.6	10.118	B
	3 - A249 onslip (NB)			1253				326				
	4 - B2005 - link	417	104	0	1674	0.249	416	1253	0.0	0.3	2.859	A
2 - South	1 - A249 onslip (SB)			547				867				
	2 - B2005 - link	1250	312	128	1923	0.650	1243	419	0.0	1.8	5.237	A
	3 - A249 offslip (SB)	467	117	1370	692	0.675	459	0	0.0	2.0	14.991	B
	4 - Swale Way	577	144	657	916	0.630	570	1172	0.0	1.6	10.223	B
	5 - Grovehurst Road	583	146	839	883	0.660	575	389	0.0	1.9	11.446	B

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	995	249	489	1151	0.865	982	0	2.2	5.5	19.843	C
	2 - Grovehurst Road	663	166	1223	745	0.890	645	247	1.6	6.1	31.630	D
	3 - A249 onslip (NB)			1484				384				
	4 - B2005 - link	489	122	0	1674	0.292	489	1484	0.3	0.4	3.038	A
2 - South	1 - A249 onslip (SB)			641				1027				
	2 - B2005 - link	1480	370	149	1909	0.775	1474	492	1.8	3.3	8.163	A
	3 - A249 offslip (SB)	557	139	1624	473	1.178	460	0	2.0	26.3	134.242	F
	4 - Swale Way	689	172	748	864	0.797	681	1337	1.6	3.6	18.916	C
	5 - Grovehurst Road	696	174	996	753	0.924	673	432	1.9	7.7	37.235	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1219	305	510	1135	1.074	1113	0	5.5	32.0	73.289	F
	2 - Grovehurst Road	811	203	1354	638	1.272	633	268	6.1	50.7	177.300	F
	3 - A249 onslip (NB)			1589				398				
	4 - B2005 - link	510	127	0	1674	0.305	510	1589	0.4	0.4	3.092	A
2 - South	1 - A249 onslip (SB)			651				1115				
	2 - B2005 - link	1592	398	140	1915	0.831	1587	510	3.3	4.6	10.777	B
	3 - A249 offslip (SB)	683	171	1728	383	1.784	382	0	26.3	101.3	623.139	F
	4 - Swale Way	843	211	761	856	0.985	806	1349	3.6	13.0	50.182	F
	5 - Grovehurst Road	852	213	1133	635	1.341	632	433	7.7	62.7	216.036	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1219	305	510	1135	1.074	1130	0	32.0	54.4	147.692	F
	2 - Grovehurst Road	811	203	1370	626	1.297	625	270	50.7	97.3	434.716	F
	3 - A249 onslip (NB)			1597				398				
	4 - B2005 - link	510	127	0	1674	0.305	510	1597	0.4	0.4	3.092	A
2 - South	1 - A249 onslip (SB)			647				1124				
	2 - B2005 - link	1601	400	137	1917	0.835	1600	510	4.6	4.9	11.294	B
	3 - A249 offslip (SB)	683	171	1738	374	1.827	374	0	101.3	178.6	1360.846	F
	4 - Swale Way	843	211	763	855	0.986	825	1348	13.0	17.6	77.327	F
	5 - Grovehurst Road	852	213	1154	618	1.380	617	434	62.7	121.4	525.973	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	995	249	509	1135	0.877	1115	0	54.4	24.4	130.910	F
	2 - Grovehurst Road	663	166	1356	637	1.041	636	268	97.3	104.0	544.111	F
	3 - A249 onslip (NB)			1594				398				
	4 - B2005 - link	509	127	0	1674	0.304	509	1594	0.4	0.4	3.091	A
	1 - A249 onslip (SB)			664				1098				

2 - South	2 - B2005 - link	1597	399	152	1908	0.837	1596	511	4.9	5.0	11.505	B
	3 - A249 offslip (SB)	557	139	1748	365	1.527	365	0	178.6	226.7	1924.559	F
	4 - Swale Way	689	172	758	858	0.803	741	1356	17.6	4.6	38.370	E
	5 - Grovehurst Road	696	174	1077	686	1.014	685	422	121.4	124.1	612.872	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	833	208	512	1133	0.735	919	0	24.4	3.0	23.269	C
	2 - Grovehurst Road	555	139	1184	778	0.714	770	247	104.0	50.2	363.131	F
	3 - A249 onslip (NB)			1548				407				
	4 - B2005 - link	512	128	0	1674	0.306	512	1548	0.4	0.4	3.098	A
2 - South	1 - A249 onslip (SB)			699				1038				
	2 - B2005 - link	1532	383	181	1890	0.811	1534	518	5.0	4.5	10.201	B
	3 - A249 offslip (SB)	467	117	1715	396	1.180	396	0	226.7	244.5	2154.654	F
	4 - Swale Way	577	144	746	865	0.667	587	1365	4.6	2.1	13.372	B
	5 - Grovehurst Road	583	146	924	820	0.711	813	408	124.1	66.4	423.492	F

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.15	0.18	1.19	4.11	5.35			N/A	N/A
	2 - Grovehurst Road	1.57	0.04	0.36	3.89	7.95			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.83	0.66	1.34	2.20	2.63			N/A	N/A
	3 - A249 offslip (SB)	1.97	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	1.65	0.53	1.02	2.39	2.83			N/A	N/A
	5 - Grovehurst Road	1.87	0.03	0.34	4.32	9.77			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	5.50	0.10	1.88	14.56	21.05			N/A	N/A
	2 - Grovehurst Road	6.06	0.08	1.38	16.86	25.58			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.41	0.00	0.00	0.41	0.41			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	3.32	0.06	1.12	8.99	13.72			N/A	N/A
	3 - A249 offslip (SB)	26.26	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	3.57	0.08	1.11	9.20	13.30			N/A	N/A
	5 - Grovehurst Road	7.67	0.10	2.29	21.05	31.13			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	32.04	6.46	27.19	59.39	71.59			N/A	N/A
	2 - Grovehurst Road	50.71	23.66	47.90	75.40	84.72			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.44	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.64	0.03	0.31	4.91	21.39			N/A	N/A
	3 - A249 offslip (SB)	101.33	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	13.03	0.26	6.84	32.66	44.79			N/A	N/A
	5 - Grovehurst Road	62.66	32.66	59.95	89.45	99.25			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	54.37	14.01	47.83	96.53	114.52			N/A	N/A
	2 - Grovehurst Road	97.28	57.14	94.33	132.56	145.02			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.44	0.03	0.29	1.20	1.92			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.87	0.03	0.28	4.87	7.96			N/A	N/A
	3 - A249 offslip (SB)	178.57	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	17.60	0.18	7.28	47.42	67.87			N/A	N/A
	5 - Grovehurst Road	121.36	78.38	118.68	158.27	170.91			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	24.45	3.46	19.76	47.85	58.82			N/A	N/A
	2 - Grovehurst Road	104.04	59.84	100.71	143.07	156.90			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.44	0.00	0.00	0.44	0.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.97	0.06	0.87	14.24	23.38			N/A	N/A
	3 - A249 offslip (SB)	226.66	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	4.61	0.05	0.46	13.03	23.37			N/A	N/A
	5 - Grovehurst Road	124.07	76.19	120.86	165.80	180.28			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.96	0.03	0.31	4.32	14.79			N/A	N/A
	2 - Grovehurst Road	50.20	23.36	47.40	74.69	83.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.44	0.00	0.00	0.44	0.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.47	0.14	2.13	10.70	14.66			N/A	N/A
	3 - A249 offslip (SB)	244.46	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	2.08	0.03	0.31	3.49	10.69			N/A	N/A
	5 - Grovehurst Road	66.38	31.39	62.91	98.55	110.62			N/A	N/A

# 2031 + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	307.50	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	728.07	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D22	2031 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1190	100.000
	2 - Grovehurst Road		ONE HOUR	✓	389	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	529	100.000
	4 - Swale Way		ONE HOUR	✓	1374	100.000
	5 - Grovehurst Road		ONE HOUR	✓	613	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	430	0	760
		2 - Grovehurst Road	0	0	34	355
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	277	560	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	187	0	0	521	402
		3 - A249 offslip (SB)	1	39	0	202	287
		4 - Swale Way	778	435	0	0	161
		5 - Grovehurst Road	150	356	0	107	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	0	0	19
		2 - Grovehurst Road	0	0	0	0
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	3	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	1	0	0	27	1
		3 - A249 offslip (SB)	0	8	0	8	3
		4 - Swale Way	17	3	0	0	3
		5 - Grovehurst Road	0	1	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.29	560.89	166.8	200.0	F	1092	1638
	2 - Grovehurst Road	0.51	8.58	1.0	2.5	A	357	535
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.41	3.54	0.7	1.5	A	657	985
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.55	4.21	1.2	1.9	A	968	1451
	3 - A249 offslip (SB)	0.66	12.20	1.9	5.5	B	485	728
	4 - Swale Way	1.73	1842.62	503.2	180.3	F	1261	1891
	5 - Grovehurst Road	0.83	25.78	4.6	23.5	D	562	844



## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	896	224	600	1103	0.812	880	0	0.0	4.0	15.233	C
	2 - Grovehurst Road	293	73	963	979	0.299	291	516	0.0	0.4	5.224	A
	3 - A249 onslip (NB)			828				427				
	4 - B2005 - link	602	150	0	1730	0.348	600	828	0.0	0.5	3.180	A
2 - South	1 - A249 onslip (SB)			679				798				
	2 - B2005 - link	826	206	80	1906	0.433	823	600	0.0	0.8	3.312	A
	3 - A249 offslip (SB)	398	100	902	1094	0.364	396	0	0.0	0.6	5.145	A
	4 - Swale Way	1034	259	681	1021	1.013	965	617	0.0	17.2	44.885	E
	5 - Grovehurst Road	461	115	1021	782	0.590	456	626	0.0	1.4	10.848	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1070	267	652	1063	1.006	1016	0	4.0	17.3	50.138	F
	2 - Grovehurst Road	350	87	1085	878	0.398	349	583	0.4	0.7	6.793	A
	3 - A249 onslip (NB)			967				467				
	4 - B2005 - link	652	163	0	1730	0.377	652	967	0.5	0.6	3.339	A
2 - South	1 - A249 onslip (SB)			746				829				
	2 - B2005 - link	963	241	96	1897	0.508	962	650	0.8	1.0	3.850	A
	3 - A249 offslip (SB)	476	119	1058	954	0.498	474	0	0.6	1.0	7.470	A
	4 - Swale Way	1235	309	804	941	1.312	939	728	17.2	91.2	222.321	F
	5 - Grovehurst Road	551	138	1027	780	0.707	548	716	1.4	2.3	15.269	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1310	328	708	1020	1.284	1018	0	17.3	90.4	200.685	F
	2 - Grovehurst Road	428	107	1124	849	0.504	427	602	0.7	1.0	8.501	A
	3 - A249 onslip (NB)			1040				511				
	4 - B2005 - link	708	177	0	1730	0.410	708	1040	0.6	0.7	3.523	A
2 - South	1 - A249 onslip (SB)			823				833				
	2 - B2005 - link	1028	257	116	1884	0.545	1027	707	1.0	1.2	4.196	A
	3 - A249 offslip (SB)	582	146	1143	879	0.663	579	0	1.0	1.9	11.853	B
	4 - Swale Way	1513	378	903	876	1.728	876	819	91.2	250.5	709.552	F
	5 - Grovehurst Road	675	169	990	810	0.833	667	789	2.3	4.4	23.743	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1310	328	712	1017	1.288	1017	0	90.4	163.8	450.850	F
	2 - Grovehurst Road	428	107	1126	848	0.505	428	603	1.0	1.0	8.582	A
	3 - A249 onslip (NB)			1040				514				
	4 - B2005 - link	712	178	0	1730	0.412	712	1040	0.7	0.7	3.537	A
2 - South	1 - A249 onslip (SB)			829				834				
	2 - B2005 - link	1028	257	118	1883	0.546	1028	711	1.2	1.2	4.208	A
	3 - A249 offslip (SB)	582	146	1145	877	0.664	582	0	1.9	1.9	12.196	B
	4 - Swale Way	1513	378	905	874	1.731	874	822	250.5	410.3	1366.481	F
	5 - Grovehurst Road	675	169	989	811	0.832	674	791	4.4	4.6	25.777	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1070	267	656	1060	1.009	1058	0	163.8	166.8	560.889	F
	2 - Grovehurst Road	350	87	1115	853	0.410	351	599	1.0	0.7	7.189	A
	3 - A249 onslip (NB)			996				470				
	4 - B2005 - link	656	164	0	1730	0.379	656	996	0.7	0.6	3.353	A
2 - South	1 - A249 onslip (SB)			752				831				

2 - South	2 - B2005 - link	993	248	98	1895	0.524	993	654	1.2	1.1	3.995	A
	3 - A249 offslip (SB)	476	119	1091	924	0.514	479	0	1.9	1.1	8.144	A
	4 - Swale Way	1235	309	823	928	1.331	928	747	410.3	487.0	1708.629	F
	5 - Grovehurst Road	551	138	1023	783	0.704	559	728	4.6	2.5	16.651	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	896	224	609	1096	0.818	1089	0	166.8	118.4	472.188	F
	2 - Grovehurst Road	293	73	1103	859	0.341	294	595	0.7	0.5	6.372	A
	3 - A249 onslip (NB)			964				433				
	4 - B2005 - link	609	152	0	1730	0.352	609	964	0.6	0.5	3.211	A
2 - South	1 - A249 onslip (SB)			688				827				
	2 - B2005 - link	968	242	81	1905	0.508	968	607	1.1	1.0	3.842	A
	3 - A249 offslip (SB)	398	100	1049	961	0.414	400	0	1.1	0.7	6.433	A
	4 - Swale Way	1034	259	761	970	1.067	970	688	487.0	503.2	1842.621	F
	5 - Grovehurst Road	461	115	1049	762	0.606	465	681	2.5	1.6	12.277	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.95	0.04	0.38	9.94	21.25			N/A	N/A
	2 - Grovehurst Road	0.42	0.00	0.00	0.42	0.42			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.76	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.57	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	17.24	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.40	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	17.33	0.42	10.08	42.18	56.81			N/A	N/A
	2 - Grovehurst Road	0.65	0.14	0.89	1.38	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.02	0.11	0.97	1.63	1.93			N/A	N/A
	3 - A249 offslip (SB)	0.98	0.08	0.88	1.68	2.04			N/A	N/A
	4 - Swale Way	91.24	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.29	0.09	1.34	5.33	7.44			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	90.40	47.80	86.79	128.78	142.72			N/A	N/A
	2 - Grovehurst Road	1.00	0.03	0.26	1.00	1.00			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.69	0.03	0.25	0.69	0.69			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.19	0.03	0.26	1.19	1.19			N/A	N/A
	3 - A249 offslip (SB)	1.89	0.03	0.28	1.89	5.55			N/A	N/A
	4 - Swale Way	250.55	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.36	0.04	0.38	11.09	23.48			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	163.79	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.01	0.03	0.27	1.01	2.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.70	0.03	0.27	0.70	1.46			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.20	0.03	0.26	1.20	1.20			N/A	N/A
	3 - A249 offslip (SB)	1.94	0.03	0.28	1.94	4.09			N/A	N/A
	4 - Swale Way	410.27	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.61	0.03	0.31	5.69	22.08			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	166.76	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.70	0.14	0.89	1.38	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.11	0.55	1.06	1.11	1.54			N/A	N/A
	3 - A249 offslip (SB)	1.08	0.08	0.91	1.91	2.62			N/A	N/A
	4 - Swale Way	486.99	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.50	0.04	0.44	6.89	11.90			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	118.42	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.52	0.05	0.50	1.30	1.40			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.55	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.04	0.55	1.02	1.06	1.06			N/A	N/A
	3 - A249 offslip (SB)	0.72	0.05	0.46	1.41	1.95			N/A	N/A
	4 - Swale Way	503.19	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.58	0.04	0.37	4.02	7.88			N/A	N/A

# 2031 + K3 Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	16.99	C
2	South	Standard Roundabout	1, 2, 3, 4, 5	62.82	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D23	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	863	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	692	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	821
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	147	327	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	141	0	0	910	183
		3 - A249 offslip (SB)	1	18	0	377	174
		4 - Swale Way	389	226	0	0	77
		5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	7	0	18
		2 - Grovehurst Road	0	0	8	3
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	7	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	16	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	39	10	0	0	9
		5 - Grovehurst Road	1	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.87	23.76	5.9	30.3	C	792	1188
	2 - Grovehurst Road	0.70	17.26	2.2	9.1	C	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.31	3.15	0.5	1.9	A	437	655
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.74	7.38	2.7	5.4	A	1136	1704
	3 - A249 offslip (SB)	1.22	297.32	58.1	98.0	F	523	785
	4 - Swale Way	0.78	16.39	3.4	16.3	C	635	952
	5 - Grovehurst Road	0.81	21.80	3.9	19.5	C	561	841

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	650	162	355	1221	0.532	645	0	0.0	1.1	6.209	A
	2 - Grovehurst Road	331	83	859	1014	0.327	329	142	0.0	0.5	5.240	A
	3 - A249 onslip (NB)			924				264				
	4 - B2005 - link	356	89	0	1664	0.214	355	924	0.0	0.3	2.748	A
2 - South	1 - A249 onslip (SB)			485				551				
	2 - B2005 - link	927	232	129	1885	0.492	923	357	0.0	1.0	3.725	A
	3 - A249 offslip (SB)	429	107	1051	947	0.453	426	0	0.0	0.8	6.860	A
	4 - Swale Way	521	130	386	1064	0.490	517	1091	0.0	0.9	6.540	A
	5 - Grovehurst Road	460	115	579	1066	0.432	457	324	0.0	0.8	5.884	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	776	194	426	1167	0.665	773	0	1.1	1.9	9.064	A
	2 - Grovehurst Road	396	99	1029	878	0.451	394	170	0.5	0.8	7.427	A
	3 - A249 onslip (NB)			1107				316				
	4 - B2005 - link	427	107	0	1664	0.256	426	1107	0.3	0.3	2.909	A
2 - South	1 - A249 onslip (SB)			581				660				
	2 - B2005 - link	1109	277	154	1870	0.593	1108	427	1.0	1.4	4.711	A
	3 - A249 offslip (SB)	512	128	1262	764	0.670	508	0	0.8	1.9	13.805	B
	4 - Swale Way	622	156	463	1019	0.610	620	1307	0.9	1.5	8.956	A
	5 - Grovehurst Road	549	137	694	967	0.568	547	388	0.8	1.3	8.520	A

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	950	238	515	1099	0.864	936	0	1.9	5.5	20.466	C
	2 - Grovehurst Road	484	121	1246	704	0.689	479	205	0.8	2.1	15.710	C
	3 - A249 onslip (NB)			1343				383				
	4 - B2005 - link	515	129	0	1664	0.310	515	1343	0.3	0.4	3.134	A
2 - South	1 - A249 onslip (SB)			703				802				
	2 - B2005 - link	1346	336	187	1850	0.728	1341	516	1.4	2.6	7.014	A
	3 - A249 offslip (SB)	628	157	1528	532	1.179	519	0	1.9	29.1	125.696	F
	4 - Swale Way	762	190	528	981	0.777	755	1519	1.5	3.2	15.465	C
	5 - Grovehurst Road	673	168	842	841	0.800	663	441	1.3	3.6	19.359	C

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	950	238	520	1095	0.867	948	0	5.5	5.9	23.756	C
	2 - Grovehurst Road	484	121	1261	691	0.701	484	208	2.1	2.2	17.261	C
	3 - A249 onslip (NB)			1358				386				
	4 - B2005 - link	520	130	0	1664	0.313	520	1358	0.4	0.5	3.148	A
2 - South	1 - A249 onslip (SB)			710				811				
	2 - B2005 - link	1362	340	189	1848	0.737	1361	521	2.6	2.7	7.378	A
	3 - A249 offslip (SB)	628	157	1550	513	1.224	511	0	29.1	58.1	297.316	F
	4 - Swale Way	762	190	531	980	0.778	761	1531	3.2	3.4	16.394	C
	5 - Grovehurst Road	673	168	849	834	0.806	672	443	3.6	3.9	21.800	C

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	776	194	441	1156	0.671	791	0	5.9	2.1	10.269	B
	2 - Grovehurst Road	396	99	1057	856	0.462	401	175	2.2	0.9	8.015	A
	3 - A249 onslip (NB)			1131				327				
	4 - B2005 - link	441	110	0	1664	0.265	441	1131	0.5	0.4	2.947	A
	1 - A249 onslip (SB)			599				673				

2 - South	2 - B2005 - link	1134	283	157	1868	0.607	1139	441	2.7	1.6	4.971	A
	3 - A249 offslip (SB)	512	128	1296	734	0.698	722	0	58.1	5.8	166.829	F
	4 - Swale Way	622	156	543	972	0.640	628	1474	3.4	1.8	10.655	B
	5 - Grovehurst Road	549	137	712	953	0.576	559	459	3.9	1.4	9.363	A

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	650	162	362	1216	0.535	653	0	2.1	1.2	6.448	A
	2 - Grovehurst Road	331	83	871	1005	0.330	333	144	0.9	0.5	5.372	A
	3 - A249 onslip (NB)			936				268				
	4 - B2005 - link	361	90	0	1664	0.217	362	936	0.4	0.3	2.767	A
2 - South	1 - A249 onslip (SB)			492				559				
	2 - B2005 - link	938	234	130	1884	0.498	940	362	1.6	1.0	3.821	A
	3 - A249 offslip (SB)	429	107	1070	931	0.461	449	0	5.8	0.9	7.762	A
	4 - Swale Way	521	130	399	1057	0.493	524	1120	1.8	1.0	6.805	A
	5 - Grovehurst Road	460	115	588	1058	0.435	462	335	1.4	0.8	6.065	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.12	0.55	1.03	1.45	1.50			N/A	N/A
	2 - Grovehurst Road	0.48	0.00	0.00	0.48	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.96	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.82	0.05	0.57	1.57	2.05			N/A	N/A
	4 - Swale Way	0.95	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	0.75	0.55	1.00	1.40	1.45			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.93	0.05	0.63	5.00	7.77			N/A	N/A
	2 - Grovehurst Road	0.81	0.06	0.73	1.30	1.76			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.44	0.05	0.56	3.57	5.40			N/A	N/A
	3 - A249 offslip (SB)	1.95	0.04	0.39	5.16	9.63			N/A	N/A
	4 - Swale Way	1.53	0.06	0.89	3.54	5.02			N/A	N/A
	5 - Grovehurst Road	1.29	0.06	0.67	2.94	4.36			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	5.45	0.04	0.40	14.31	29.48			N/A	N/A
	2 - Grovehurst Road	2.10	0.03	0.29	2.10	8.75			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.60	0.03	0.27	2.60	4.75			N/A	N/A
	3 - A249 offslip (SB)	29.07	9.69	26.29	47.70	55.33			N/A	N/A
	4 - Swale Way	3.23	0.03	0.32	4.84	16.28			N/A	N/A
	5 - Grovehurst Road	3.62	0.03	0.34	7.70	19.53			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	5.94	0.03	0.33	9.21	30.30			N/A	N/A
	2 - Grovehurst Road	2.25	0.03	0.29	2.25	9.13			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.31	1.38	1.88			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.74	0.03	0.27	2.74	2.74			N/A	N/A
	3 - A249 offslip (SB)	58.12	26.67	54.86	87.08	98.02			N/A	N/A
	4 - Swale Way	3.36	0.03	0.29	3.36	10.80			N/A	N/A
	5 - Grovehurst Road	3.89	0.03	0.30	4.07	17.89			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.11	0.04	0.44	5.75	9.73			N/A	N/A
	2 - Grovehurst Road	0.87	0.06	0.67	1.65	2.18			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.57	0.10	1.19	3.05	4.08			N/A	N/A
	3 - A249 offslip (SB)	5.77	0.08	1.34	16.01	24.21			N/A	N/A
	4 - Swale Way	1.83	0.06	0.90	4.52	6.63			N/A	N/A
	5 - Grovehurst Road	1.39	0.05	0.47	3.53	5.54			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.17	0.03	0.32	2.42	5.92			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.35	1.44	1.67			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.00	0.05	0.50	2.17	3.22			N/A	N/A
	3 - A249 offslip (SB)	0.87	0.03	0.26	0.87	0.87			N/A	N/A
	4 - Swale Way	0.99	0.04	0.36	2.45	4.49			N/A	N/A
	5 - Grovehurst Road	0.78	0.03	0.33	1.74	3.70			N/A	N/A



# 2031 + K3 Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	28.34	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	307.99	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D24	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	828	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	443	100.000
	4 - Swale Way		ONE HOUR	✓	1278	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	648
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	262	522	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	42	0	0	480	322
		3 - A249 offslip (SB)	1	27	0	199	216
		4 - Swale Way	687	432	0	0	159
		5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	1	0	22
		2 - Grovehurst Road	0	0	0	1
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	4	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	28	1
		3 - A249 offslip (SB)	0	11	0	8	4
		4 - Swale Way	19	3	0	0	3
		5 - Grovehurst Road	0	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.95	52.49	12.5	60.4	F	760	1140
	2 - Grovehurst Road	0.33	6.94	0.5	1.9	A	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.42	3.62	0.7	1.5	A	672	1008
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.51	3.99	1.0	1.5	A	781	1172
	3 - A249 offslip (SB)	0.52	8.08	1.1	3.7	A	407	610
	4 - Swale Way	1.38	729.47	232.1	232.1	F	1173	1759
	5 - Grovehurst Road	0.73	16.62	2.6	12.4	C	490	735

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	623	156	576	1068	0.584	618	0	0.0	1.4	7.913	A
	2 - Grovehurst Road	171	43	867	1037	0.165	170	327	0.0	0.2	4.150	A
	3 - A249 onslip (NB)			633				404				
	4 - B2005 - link	578	145	0	1719	0.336	576	633	0.0	0.5	3.145	A
2 - South	1 - A249 onslip (SB)			656				622				
	2 - B2005 - link	637	159	79	1854	0.343	635	577	0.0	0.5	2.947	A
	3 - A249 offslip (SB)	334	83	714	1236	0.270	332	0	0.0	0.4	3.976	A
	4 - Swale Way	962	241	457	1160	0.830	945	589	0.0	4.4	15.651	C
	5 - Grovehurst Road	402	101	880	874	0.460	399	522	0.0	0.8	7.526	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	744	186	670	998	0.746	739	0	1.4	2.8	13.576	B
	2 - Grovehurst Road	204	51	1025	907	0.225	204	385	0.2	0.3	5.113	A
	3 - A249 onslip (NB)			758				471				
	4 - B2005 - link	671	168	0	1719	0.390	670	758	0.5	0.6	3.432	A
2 - South	1 - A249 onslip (SB)			764				711				
	2 - B2005 - link	762	190	95	1845	0.413	761	670	0.5	0.7	3.320	A
	3 - A249 offslip (SB)	398	100	856	1107	0.360	397	0	0.4	0.6	5.067	A
	4 - Swale Way	1149	287	547	1100	1.044	1068	706	4.4	24.5	61.693	F
	5 - Grovehurst Road	480	120	999	780	0.615	477	617	0.8	1.5	11.763	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	912	228	724	959	0.951	882	0	2.8	10.2	37.316	E
	2 - Grovehurst Road	250	62	1173	783	0.319	249	434	0.3	0.5	6.740	A
	3 - A249 onslip (NB)			910				512				
	4 - B2005 - link	725	181	0	1719	0.422	724	910	0.6	0.7	3.621	A
2 - South	1 - A249 onslip (SB)			839				717				
	2 - B2005 - link	914	228	116	1832	0.499	913	724	0.7	1.0	3.910	A
	3 - A249 offslip (SB)	488	122	1029	950	0.513	486	0	0.6	1.0	7.719	A
	4 - Swale Way	1407	352	661	1026	1.372	1024	853	24.5	120.2	263.340	F
	5 - Grovehurst Road	588	147	973	801	0.734	584	713	1.5	2.6	16.237	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	912	228	726	958	0.952	902	0	10.2	12.5	52.492	F
	2 - Grovehurst Road	250	62	1189	768	0.325	250	439	0.5	0.5	6.944	A
	3 - A249 onslip (NB)			926				513				
	4 - B2005 - link	726	181	0	1719	0.422	726	926	0.7	0.7	3.624	A
2 - South	1 - A249 onslip (SB)			841				717				
	2 - B2005 - link	931	233	117	1832	0.508	931	724	1.0	1.0	3.994	A
	3 - A249 offslip (SB)	488	122	1048	933	0.523	488	0	1.0	1.1	8.077	A
	4 - Swale Way	1407	352	670	1020	1.380	1020	865	120.2	217.0	585.989	F
	5 - Grovehurst Road	588	147	970	804	0.732	588	720	2.6	2.6	16.615	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	744	186	682	990	0.752	781	0	12.5	3.2	19.871	C
	2 - Grovehurst Road	204	51	1066	873	0.234	205	398	0.5	0.3	5.396	A
	3 - A249 onslip (NB)			792				478				
	4 - B2005 - link	682	170	0	1719	0.397	682	792	0.7	0.7	3.475	A
	1 - A249 onslip (SB)			776				725				

2 - South	2 - B2005 - link	797	199	96	1844	0.432	799	680	1.0	0.8	3.448	A
	3 - A249 offslip (SB)	398	100	895	1072	0.372	400	0	1.1	0.6	5.378	A
	4 - Swale Way	1149	287	565	1089	1.055	1089	730	217.0	232.1	729.470	F
	5 - Grovehurst Road	480	120	1018	765	0.628	484	635	2.6	1.7	12.961	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	623	156	651	1012	0.616	630	0	3.2	1.6	9.558	A
	2 - Grovehurst Road	171	43	927	991	0.172	171	355	0.3	0.2	4.391	A
	3 - A249 onslip (NB)			644				454				
	4 - B2005 - link	651	163	0	1719	0.379	651	644	0.7	0.6	3.372	A
2 - South	1 - A249 onslip (SB)			730				735				
	2 - B2005 - link	647	162	80	1853	0.349	648	650	0.8	0.5	2.991	A
	3 - A249 offslip (SB)	334	83	729	1223	0.273	334	0	0.6	0.4	4.058	A
	4 - Swale Way	962	241	464	1155	0.833	1150	599	232.1	185.1	653.303	F
	5 - Grovehurst Road	402	101	1061	731	0.550	404	554	1.7	1.3	11.078	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.37	0.54	1.28	1.81	1.97			N/A	N/A
	2 - Grovehurst Road	0.20	0.00	0.00	0.20	0.20			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	4 - Swale Way	4.39	0.03	0.31	5.67	21.27			N/A	N/A
	5 - Grovehurst Road	0.84	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.77	0.06	1.02	7.39	11.19			N/A	N/A
	2 - Grovehurst Road	0.29	0.00	0.00	0.29	0.29			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.64	0.21	0.93	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.70	0.10	0.84	1.38	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.56	0.07	0.70	1.34	1.42			N/A	N/A
	4 - Swale Way	24.49	0.66	14.74	59.30	79.46			N/A	N/A
	5 - Grovehurst Road	1.55	0.09	1.15	3.09	4.19			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.18	0.10	3.06	28.29	41.99			N/A	N/A
	2 - Grovehurst Road	0.46	0.03	0.25	0.46	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.25	0.72	0.72			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.99	0.03	0.26	0.99	0.99			N/A	N/A
	3 - A249 offslip (SB)	1.04	0.03	0.26	1.04	1.04			N/A	N/A
	4 - Swale Way	120.16	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.59	0.03	0.31	3.16	12.36			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	12.51	0.07	1.37	36.77	60.43			N/A	N/A
	2 - Grovehurst Road	0.48	0.03	0.32	1.44	1.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.73	0.03	0.27	0.73	1.02			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.03	0.03	0.27	1.03	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.08	0.03	0.28	1.08	3.73			N/A	N/A
	4 - Swale Way	217.01	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.65	0.03	0.28	2.65	6.79			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.24	0.04	0.41	8.86	16.52			N/A	N/A
	2 - Grovehurst Road	0.31	0.00	0.00	0.31	0.31			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.66	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.77	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.60	0.10	0.83	1.37	1.43			N/A	N/A
	4 - Swale Way	232.07	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.74	0.05	0.69	4.42	6.68			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.64	0.03	0.31	2.59	8.29			N/A	N/A
	2 - Grovehurst Road	0.21	0.00	0.00	0.21	0.21			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.54	0.54	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.38	0.03	0.30	0.90	1.20			N/A	N/A
	4 - Swale Way	185.05	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.25	0.05	0.46	3.08	4.87			N/A	N/A

# 2031 + WKN Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	17.60	C
2	South	Standard Roundabout	1, 2, 3, 4, 5	65.38	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D25	2031 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	869	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	698	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	827
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	147	327	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	141	0	0	916	183
		3 - A249 offslip (SB)	1	18	0	377	174
		4 - Swale Way	395	226	0	0	77
		5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	7	0	18
		2 - Grovehurst Road	0	0	8	3
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	7	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	17	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	40	10	0	0	9
		5 - Grovehurst Road	1	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.87	24.71	6.2	32.4	C	797	1196
	2 - Grovehurst Road	0.71	17.69	2.3	9.5	C	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.31	3.15	0.5	1.9	A	437	655
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.74	7.53	2.8	5.5	A	1134	1701
	3 - A249 offslip (SB)	1.24	311.09	60.7	100.6	F	523	785
	4 - Swale Way	0.79	17.11	3.5	17.5	C	640	961
	5 - Grovehurst Road	0.81	22.93	4.1	20.4	C	561	841

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	654	164	355	1221	0.536	650	0	0.0	1.1	6.259	A
	2 - Grovehurst Road	331	83	863	1011	0.328	329	142	0.0	0.5	5.268	A
	3 - A249 onslip (NB)			929				264				
	4 - B2005 - link	356	89	0	1664	0.214	355	929	0.0	0.3	2.748	A
2 - South	1 - A249 onslip (SB)			485				555				
	2 - B2005 - link	925	231	129	1873	0.494	921	357	0.0	1.0	3.769	A
	3 - A249 offslip (SB)	429	107	1050	943	0.455	426	0	0.0	0.8	6.914	A
	4 - Swale Way	525	131	385	1059	0.496	522	1091	0.0	1.0	6.648	A
	5 - Grovehurst Road	460	115	583	1060	0.434	457	323	0.0	0.8	5.940	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	781	195	426	1167	0.670	778	0	1.1	2.0	9.180	A
	2 - Grovehurst Road	396	99	1034	873	0.453	394	170	0.5	0.8	7.492	A
	3 - A249 onslip (NB)			1112				316				
	4 - B2005 - link	427	107	0	1664	0.256	426	1112	0.3	0.3	2.909	A
2 - South	1 - A249 onslip (SB)			581				665				
	2 - B2005 - link	1108	277	154	1857	0.596	1106	427	1.0	1.5	4.778	A
	3 - A249 offslip (SB)	512	128	1260	759	0.675	508	0	0.8	2.0	14.054	B
	4 - Swale Way	627	157	461	1015	0.618	625	1307	1.0	1.6	9.173	A
	5 - Grovehurst Road	549	137	699	960	0.572	547	387	0.8	1.3	8.662	A

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	957	239	515	1100	0.870	942	0	2.0	5.7	21.077	C
	2 - Grovehurst Road	484	121	1251	699	0.693	479	205	0.8	2.1	16.017	C
	3 - A249 onslip (NB)			1348				382				
	4 - B2005 - link	515	129	0	1664	0.310	515	1348	0.3	0.4	3.133	A
2 - South	1 - A249 onslip (SB)			702				807				
	2 - B2005 - link	1343	336	187	1837	0.731	1338	516	1.5	2.6	7.140	A
	3 - A249 offslip (SB)	628	157	1525	527	1.191	515	0	2.0	30.2	130.702	F
	4 - Swale Way	769	192	524	978	0.786	761	1516	1.6	3.4	16.066	C
	5 - Grovehurst Road	673	168	847	833	0.808	663	439	1.3	3.8	20.146	C

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	957	239	520	1096	0.873	955	0	5.7	6.2	24.710	C
	2 - Grovehurst Road	484	121	1267	686	0.706	484	207	2.1	2.3	17.688	C
	3 - A249 onslip (NB)			1365				386				
	4 - B2005 - link	520	130	0	1664	0.313	520	1365	0.4	0.5	3.147	A
2 - South	1 - A249 onslip (SB)			710				816				
	2 - B2005 - link	1359	340	189	1836	0.740	1359	521	2.6	2.8	7.527	A
	3 - A249 offslip (SB)	628	157	1548	507	1.238	506	0	30.2	60.7	311.089	F
	4 - Swale Way	769	192	526	977	0.787	768	1527	3.4	3.5	17.106	C
	5 - Grovehurst Road	673	168	855	826	0.815	671	440	3.8	4.1	22.927	C

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	781	195	441	1155	0.676	797	0	6.2	2.2	10.484	B
	2 - Grovehurst Road	396	99	1063	850	0.465	401	175	2.3	0.9	8.114	A
	3 - A249 onslip (NB)			1137				327				
	4 - B2005 - link	441	110	0	1664	0.265	441	1137	0.5	0.4	2.945	A
	1 - A249 onslip (SB)			599				678				



2 - South	2 - B2005 - link	1133	283	158	1855	0.611	1138	441	2.8	1.6	5.051	A
	3 - A249 offslip (SB)	512	128	1295	728	0.704	716	0	60.7	9.7	183.071	F
	4 - Swale Way	627	157	540	969	0.648	634	1472	3.5	1.9	10.955	B
	5 - Grovehurst Road	549	137	717	946	0.581	560	457	4.1	1.4	9.579	A

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	654	164	362	1215	0.538	658	0	2.2	1.2	6.509	A
	2 - Grovehurst Road	331	83	876	1000	0.331	333	144	0.9	0.5	5.405	A
	3 - A249 onslip (NB)			940				269				
	4 - B2005 - link	362	90	0	1664	0.218	362	940	0.4	0.3	2.768	A
2 - South	1 - A249 onslip (SB)			493				563				
	2 - B2005 - link	936	234	130	1872	0.500	939	362	1.6	1.0	3.870	A
	3 - A249 offslip (SB)	429	107	1069	927	0.463	464	0	9.7	0.9	8.386	A
	4 - Swale Way	525	131	403	1049	0.501	529	1131	1.9	1.0	6.971	A
	5 - Grovehurst Road	460	115	593	1052	0.437	463	339	1.4	0.8	6.136	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.14	0.55	1.04	1.27	1.27			N/A	N/A
	2 - Grovehurst Road	0.48	0.00	0.00	0.48	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.97	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.82	0.05	0.54	1.62	2.22			N/A	N/A
	4 - Swale Way	0.97	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	0.76	0.55	1.00	1.40	1.45			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.97	0.05	0.63	5.15	7.96			N/A	N/A
	2 - Grovehurst Road	0.82	0.06	0.73	1.35	1.80			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.46	0.05	0.56	3.62	5.50			N/A	N/A
	3 - A249 offslip (SB)	1.98	0.04	0.39	5.26	9.83			N/A	N/A
	4 - Swale Way	1.58	0.06	0.89	3.70	5.33			N/A	N/A
	5 - Grovehurst Road	1.31	0.05	0.66	3.00	4.50			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	5.67	0.04	0.41	15.21	30.49			N/A	N/A
	2 - Grovehurst Road	2.14	0.03	0.29	2.14	9.15			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.64	0.03	0.28	2.64	5.14			N/A	N/A
	3 - A249 offslip (SB)	30.19	10.55	27.46	48.89	56.47			N/A	N/A
	4 - Swale Way	3.39	0.03	0.32	5.62	17.52			N/A	N/A
	5 - Grovehurst Road	3.77	0.04	0.35	8.47	20.43			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	6.21	0.03	0.33	10.50	32.41			N/A	N/A
	2 - Grovehurst Road	2.30	0.03	0.29	2.30	9.51			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.31	1.38	1.88			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.79	0.03	0.27	2.79	2.79			N/A	N/A
	3 - A249 offslip (SB)	60.65	28.91	57.50	89.69	100.58			N/A	N/A
	4 - Swale Way	3.53	0.03	0.29	3.53	12.11			N/A	N/A
	5 - Grovehurst Road	4.08	0.03	0.31	4.86	19.40			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.16	0.04	0.44	5.89	10.03			N/A	N/A
	2 - Grovehurst Road	0.88	0.06	0.66	1.69	2.28			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.59	0.10	1.19	3.16	4.25			N/A	N/A
	3 - A249 offslip (SB)	9.69	0.43	6.06	22.16	29.19			N/A	N/A
	4 - Swale Way	1.90	0.06	0.86	4.75	7.02			N/A	N/A
	5 - Grovehurst Road	1.42	0.05	0.46	3.64	5.77			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.18	0.03	0.32	2.40	6.03			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.35	1.45	1.71			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.01	0.05	0.49	2.24	3.34			N/A	N/A
	3 - A249 offslip (SB)	0.88	0.03	0.26	0.88	0.88			N/A	N/A
	4 - Swale Way	1.02	0.04	0.36	2.53	4.73			N/A	N/A
	5 - Grovehurst Road	0.79	0.03	0.32	1.72	3.78			N/A	N/A

# 2031 + WKN Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	28.16	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	328.49	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D26	2031 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	830	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	444	100.000
	4 - Swale Way		ONE HOUR	✓	1295	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	650
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	262	522	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	42	0	0	482	322
		3 - A249 offslip (SB)	1	27	0	200	216
		4 - Swale Way	704	432	0	0	159
	5 - Grovehurst Road	110	318	0	106	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	1	0	22
		2 - Grovehurst Road	0	0	0	1
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	4	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	29	1
		3 - A249 offslip (SB)	0	11	0	8	4
		4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.95	51.99	12.4	60.2	F	762	1142
	2 - Grovehurst Road	0.33	6.94	0.5	1.9	A	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.42	3.61	0.7	1.5	A	668	1003
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.51	4.03	1.0	1.5	A	779	1169
	3 - A249 offslip (SB)	0.53	8.14	1.1	3.7	A	407	611
	4 - Swale Way	1.40	773.20	247.9	247.9	F	1188	1782
	5 - Grovehurst Road	0.74	16.77	2.7	12.6	C	490	735

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	625	156	576	1068	0.585	619	0	0.0	1.4	7.935	A
	2 - Grovehurst Road	171	43	868	1036	0.165	170	327	0.0	0.2	4.155	A
	3 - A249 onslip (NB)			635				404				
	4 - B2005 - link	578	144	0	1719	0.336	576	635	0.0	0.5	3.144	A
2 - South	1 - A249 onslip (SB)			656				634				
	2 - B2005 - link	635	159	79	1845	0.344	633	577	0.0	0.5	2.966	A
	3 - A249 offslip (SB)	334	84	712	1235	0.271	333	0	0.0	0.4	3.986	A
	4 - Swale Way	975	244	455	1160	0.841	956	590	0.0	4.7	16.430	C
	5 - Grovehurst Road	402	101	891	864	0.465	399	520	0.0	0.9	7.679	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	746	187	667	1001	0.746	741	0	1.4	2.8	13.555	B
	2 - Grovehurst Road	204	51	1024	907	0.225	204	384	0.2	0.3	5.113	A
	3 - A249 onslip (NB)			759				468				
	4 - B2005 - link	668	167	0	1719	0.388	667	759	0.5	0.6	3.421	A
2 - South	1 - A249 onslip (SB)			761				720				
	2 - B2005 - link	760	190	95	1835	0.414	759	666	0.5	0.7	3.342	A
	3 - A249 offslip (SB)	399	100	854	1105	0.361	398	0	0.4	0.6	5.086	A
	4 - Swale Way	1164	291	545	1101	1.058	1073	707	4.7	27.4	67.065	F
	5 - Grovehurst Road	480	120	1004	775	0.619	477	614	0.9	1.6	11.962	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	914	228	720	962	0.950	884	0	2.8	10.1	37.072	E
	2 - Grovehurst Road	250	62	1172	783	0.319	249	432	0.3	0.5	6.739	A
	3 - A249 onslip (NB)			912				509				
	4 - B2005 - link	720	180	0	1719	0.419	720	912	0.6	0.7	3.605	A
2 - South	1 - A249 onslip (SB)			835				724				
	2 - B2005 - link	912	228	116	1823	0.500	911	719	0.7	1.0	3.940	A
	3 - A249 offslip (SB)	489	122	1026	948	0.516	487	0	0.6	1.0	7.774	A
	4 - Swale Way	1426	356	659	1026	1.390	1025	854	27.4	127.7	281.347	F
	5 - Grovehurst Road	588	147	975	799	0.736	584	709	1.6	2.6	16.393	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	914	228	721	961	0.951	905	0	10.1	12.4	51.988	F
	2 - Grovehurst Road	250	62	1189	768	0.325	250	437	0.5	0.5	6.942	A
	3 - A249 onslip (NB)			929				510				
	4 - B2005 - link	721	180	0	1719	0.420	721	929	0.7	0.7	3.608	A
2 - South	1 - A249 onslip (SB)			837				723				
	2 - B2005 - link	929	232	117	1823	0.510	929	720	1.0	1.0	4.025	A
	3 - A249 offslip (SB)	489	122	1045	931	0.525	489	0	1.0	1.1	8.139	A
	4 - Swale Way	1426	356	668	1020	1.398	1020	866	127.7	229.1	618.738	F
	5 - Grovehurst Road	588	147	972	802	0.733	588	716	2.6	2.7	16.770	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	746	187	677	993	0.751	783	0	12.4	3.2	19.656	C
	2 - Grovehurst Road	204	51	1064	873	0.234	205	396	0.5	0.3	5.388	A
	3 - A249 onslip (NB)			794				475				
	4 - B2005 - link	677	169	0	1719	0.394	677	794	0.7	0.7	3.459	A
2 - South	1 - A249 onslip (SB)			772				732				

2 - South	2 - B2005 - link	795	199	96	1835	0.433	796	676	1.0	0.8	3.471	A
	3 - A249 offslip (SB)	399	100	892	1070	0.373	401	0	1.1	0.6	5.398	A
	4 - Swale Way	1164	291	563	1089	1.069	1089	730	229.1	247.9	773.205	F
	5 - Grovehurst Road	480	120	1020	763	0.629	484	632	2.7	1.8	13.064	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	625	156	646	1016	0.615	631	0	3.2	1.6	9.505	A
	2 - Grovehurst Road	171	43	925	993	0.172	171	353	0.3	0.2	4.384	A
	3 - A249 onslip (NB)			645				451				
	4 - B2005 - link	646	162	0	1719	0.376	646	645	0.7	0.6	3.356	A
2 - South	1 - A249 onslip (SB)			725				741				
	2 - B2005 - link	646	161	80	1844	0.350	647	645	0.8	0.5	3.010	A
	3 - A249 offslip (SB)	334	84	727	1221	0.274	335	0	0.6	0.4	4.067	A
	4 - Swale Way	975	244	462	1155	0.844	1150	600	247.9	204.0	707.524	F
	5 - Grovehurst Road	402	101	1062	729	0.552	404	550	1.8	1.3	11.152	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.38	0.55	1.28	1.82	1.97			N/A	N/A
	2 - Grovehurst Road	0.20	0.00	0.00	0.20	0.20			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	4 - Swale Way	4.70	0.03	0.30	4.70	21.14			N/A	N/A
	5 - Grovehurst Road	0.86	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.77	0.06	1.02	7.39	11.19			N/A	N/A
	2 - Grovehurst Road	0.29	0.00	0.00	0.29	0.29			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.63	0.21	0.93	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.70	0.10	0.84	1.38	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.56	0.07	0.70	1.34	1.42			N/A	N/A
	4 - Swale Way	27.44	0.77	16.69	66.27	88.60			N/A	N/A
	5 - Grovehurst Road	1.57	0.09	1.16	3.17	4.29			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.12	0.10	2.98	28.21	41.96			N/A	N/A
	2 - Grovehurst Road	0.46	0.03	0.25	0.46	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.25	0.72	0.72			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.99	0.03	0.26	0.99	0.99			N/A	N/A
	3 - A249 offslip (SB)	1.05	0.03	0.26	1.05	1.05			N/A	N/A
	4 - Swale Way	127.66	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.62	0.03	0.31	3.29	12.55			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	12.42	0.07	1.28	36.50	60.24			N/A	N/A
	2 - Grovehurst Road	0.48	0.03	0.32	1.44	1.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.27	0.72	1.07			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.03	0.03	0.27	1.03	1.44			N/A	N/A
	3 - A249 offslip (SB)	1.09	0.03	0.28	1.09	3.74			N/A	N/A
	4 - Swale Way	229.10	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.67	0.03	0.28	2.67	6.92			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.22	0.04	0.41	8.81	16.45			N/A	N/A
	2 - Grovehurst Road	0.31	0.00	0.00	0.31	0.31			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.65	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.77	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.60	0.10	0.83	1.37	1.43			N/A	N/A
	4 - Swale Way	247.89	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.76	0.05	0.66	4.50	6.83			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.64	0.03	0.31	2.58	8.26			N/A	N/A
	2 - Grovehurst Road	0.21	0.00	0.00	0.21	0.21			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.54	0.54	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.38	0.03	0.30	0.93	1.22			N/A	N/A
	4 - Swale Way	204.02	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.26	0.05	0.45	3.14	4.96			N/A	N/A

# 2031 + K3 and WKN Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	18.71	C
2	South	Standard Roundabout	1, 2, 3, 4, 5	69.14	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D27	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	871	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	701	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000



## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	829
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	147	327	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	141	0	0	918	183
		3 - A249 offslip (SB)	1	18	0	377	174
		4 - Swale Way	398	226	0	0	77
		5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	7	0	19
		2 - Grovehurst Road	0	0	8	3
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	7	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	17	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	41	10	0	0	9
		5 - Grovehurst Road	1	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.88	26.48	6.6	35.7	D	799	1199
	2 - Grovehurst Road	0.71	18.37	2.4	10.1	C	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.31	3.15	0.5	1.9	A	437	655
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.75	7.68	2.9	5.7	A	1143	1714
	3 - A249 offslip (SB)	1.26	332.25	64.5	104.3	F	523	785
	4 - Swale Way	0.79	17.73	3.7	18.5	C	643	965
	5 - Grovehurst Road	0.82	23.88	4.2	21.1	C	561	841

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	656	164	355	1211	0.542	651	0	0.0	1.2	6.382	A
	2 - Grovehurst Road	331	83	865	1005	0.330	329	142	0.0	0.5	5.311	A
	3 - A249 onslip (NB)			930				264				
	4 - B2005 - link	356	89	0	1664	0.214	355	930	0.0	0.3	2.748	A
2 - South	1 - A249 onslip (SB)			485				558				
	2 - B2005 - link	932	233	129	1872	0.498	928	357	0.0	1.0	3.797	A
	3 - A249 offslip (SB)	429	107	1057	937	0.458	426	0	0.0	0.8	6.994	A
	4 - Swale Way	528	132	386	1053	0.501	524	1096	0.0	1.0	6.750	A
	5 - Grovehurst Road	460	115	586	1055	0.436	457	324	0.0	0.8	5.986	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	783	196	426	1157	0.677	780	0	1.2	2.0	9.443	A
	2 - Grovehurst Road	396	99	1036	867	0.456	394	170	0.5	0.8	7.596	A
	3 - A249 onslip (NB)			1114				316				
	4 - B2005 - link	426	107	0	1664	0.256	426	1114	0.3	0.3	2.909	A
2 - South	1 - A249 onslip (SB)			581				668				
	2 - B2005 - link	1116	279	154	1857	0.601	1114	427	1.0	1.5	4.832	A
	3 - A249 offslip (SB)	512	128	1268	752	0.681	508	0	0.8	2.0	14.444	B
	4 - Swale Way	630	158	462	1009	0.625	628	1313	1.0	1.6	9.374	A
	5 - Grovehurst Road	549	137	702	955	0.575	547	388	0.8	1.3	8.777	A

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	959	240	514	1091	0.879	943	0	2.0	6.0	22.223	C
	2 - Grovehurst Road	484	121	1252	692	0.700	479	205	0.8	2.2	16.497	C
	3 - A249 onslip (NB)			1349				382				
	4 - B2005 - link	514	129	0	1664	0.309	514	1349	0.3	0.4	3.132	A
2 - South	1 - A249 onslip (SB)			702				811				
	2 - B2005 - link	1352	338	186	1837	0.736	1347	515	1.5	2.7	7.264	A
	3 - A249 offslip (SB)	628	157	1533	519	1.208	508	0	2.0	31.9	138.463	F
	4 - Swale Way	772	193	523	974	0.793	764	1518	1.6	3.5	16.594	C
	5 - Grovehurst Road	673	168	850	826	0.814	662	438	1.3	3.9	20.793	C

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	959	240	520	1087	0.882	956	0	6.0	6.6	26.481	D
	2 - Grovehurst Road	484	121	1269	678	0.714	484	207	2.2	2.4	18.367	C
	3 - A249 onslip (NB)			1367				386				
	4 - B2005 - link	520	130	0	1664	0.312	520	1367	0.4	0.5	3.146	A
2 - South	1 - A249 onslip (SB)			709				820				
	2 - B2005 - link	1369	342	189	1836	0.746	1368	520	2.7	2.9	7.684	A
	3 - A249 offslip (SB)	628	157	1557	498	1.260	497	0	31.9	64.5	332.249	F
	4 - Swale Way	772	193	525	973	0.793	771	1529	3.5	3.7	17.730	C
	5 - Grovehurst Road	673	168	858	819	0.821	671	438	3.9	4.2	23.880	C

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	783	196	441	1146	0.683	801	0	6.6	2.2	10.921	B
	2 - Grovehurst Road	396	99	1066	842	0.470	401	175	2.4	0.9	8.273	A
	3 - A249 onslip (NB)			1141				327				
	4 - B2005 - link	441	110	0	1664	0.265	441	1141	0.5	0.4	2.945	A
	1 - A249 onslip (SB)			599				682				

2 - South	2 - B2005 - link	1143	286	158	1855	0.616	1148	441	2.9	1.6	5.130	A
	3 - A249 offslip (SB)	512	128	1306	719	0.713	708	0	64.5	15.6	208.234	F
	4 - Swale Way	630	158	539	964	0.653	637	1474	3.7	1.9	11.217	B
	5 - Grovehurst Road	549	137	721	940	0.585	560	455	4.2	1.4	9.762	A

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	656	164	363	1205	0.544	660	0	2.2	1.2	6.656	A
	2 - Grovehurst Road	331	83	878	994	0.333	333	144	0.9	0.5	5.455	A
	3 - A249 onslip (NB)			942				269				
	4 - B2005 - link	363	91	0	1664	0.218	363	942	0.4	0.3	2.768	A
2 - South	1 - A249 onslip (SB)			493				566				
	2 - B2005 - link	944	236	130	1871	0.504	946	363	1.6	1.0	3.901	A
	3 - A249 offslip (SB)	429	107	1076	920	0.466	488	0	15.6	0.9	9.543	A
	4 - Swale Way	528	132	412	1038	0.508	531	1152	1.9	1.0	7.152	A
	5 - Grovehurst Road	460	115	597	1046	0.440	463	347	1.4	0.8	6.192	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.16	0.56	1.01	1.16	1.51			N/A	N/A
	2 - Grovehurst Road	0.49	0.00	0.00	0.49	0.49			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.98	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.83	0.05	0.49	1.70	2.43			N/A	N/A
	4 - Swale Way	0.99	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	0.76	0.55	1.00	1.40	1.45			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.03	0.05	0.64	5.35	8.29			N/A	N/A
	2 - Grovehurst Road	0.83	0.06	0.72	1.40	1.84			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.49	0.05	0.54	3.71	5.65			N/A	N/A
	3 - A249 offslip (SB)	2.04	0.04	0.39	5.41	10.14			N/A	N/A
	4 - Swale Way	1.62	0.06	0.89	3.82	5.53			N/A	N/A
	5 - Grovehurst Road	1.32	0.05	0.65	3.08	4.61			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	6.02	0.04	0.43	16.61	31.88			N/A	N/A
	2 - Grovehurst Road	2.20	0.03	0.30	2.20	9.78			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.70	0.03	0.28	2.70	5.67			N/A	N/A
	3 - A249 offslip (SB)	31.89	11.88	29.24	50.75	58.29			N/A	N/A
	4 - Swale Way	3.52	0.03	0.33	6.26	18.48			N/A	N/A
	5 - Grovehurst Road	3.90	0.04	0.36	9.07	21.10			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	6.65	0.03	0.34	12.74	35.72			N/A	N/A
	2 - Grovehurst Road	2.39	0.03	0.29	2.39	10.10			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.31	1.38	1.88			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.86	0.03	0.27	2.86	2.86			N/A	N/A
	3 - A249 offslip (SB)	64.47	32.30	61.45	93.55	104.29			N/A	N/A
	4 - Swale Way	3.67	0.03	0.29	3.67	13.24			N/A	N/A
	5 - Grovehurst Road	4.25	0.03	0.31	5.55	20.63			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.23	0.04	0.43	6.10	10.53			N/A	N/A
	2 - Grovehurst Road	0.90	0.06	0.65	1.75	2.42			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.63	0.09	1.20	3.32	4.47			N/A	N/A
	3 - A249 offslip (SB)	15.64	2.64	12.89	29.19	35.42			N/A	N/A
	4 - Swale Way	1.95	0.06	0.82	4.93	7.43			N/A	N/A
	5 - Grovehurst Road	1.44	0.05	0.45	3.71	5.92			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.21	0.03	0.32	2.37	6.21			N/A	N/A
	2 - Grovehurst Road	0.50	0.03	0.35	1.47	1.77			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.03	0.05	0.48	2.33	3.48			N/A	N/A
	3 - A249 offslip (SB)	0.89	0.03	0.26	0.89	0.89			N/A	N/A
	4 - Swale Way	1.05	0.04	0.36	2.60	4.92			N/A	N/A
	5 - Grovehurst Road	0.79	0.03	0.32	1.71	3.84			N/A	N/A

# 2031 + K3 and WKN Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	28.74	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	332.03	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D28	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	832	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	444	100.000
	4 - Swale Way		ONE HOUR	✓	1298	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	652
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	262	523	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	42	0	0	484	322
		3 - A249 offslip (SB)	1	27	0	200	216
		4 - Swale Way	706	433	0	0	159
	5 - Grovehurst Road	110	318	0	106	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	1	0	22
		2 - Grovehurst Road	0	0	0	1
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	3	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	29	1
		3 - A249 offslip (SB)	0	11	0	8	4
		4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.95	53.10	12.7	61.0	F	763	1145
	2 - Grovehurst Road	0.33	6.95	0.5	1.9	A	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.42	3.58	0.7	1.4	A	673	1009
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.51	4.03	1.0	1.4	A	781	1172
	3 - A249 offslip (SB)	0.53	8.17	1.1	3.7	A	407	611
	4 - Swale Way	1.40	781.13	250.8	250.8	F	1191	1787
	5 - Grovehurst Road	0.74	16.79	2.7	12.6	C	490	735

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	626	157	580	1067	0.587	621	0	0.0	1.4	7.971	A
	2 - Grovehurst Road	171	43	873	1035	0.165	170	328	0.0	0.2	4.159	A
	3 - A249 onslip (NB)			636				407				
	4 - B2005 - link	582	146	0	1730	0.337	580	636	0.0	0.5	3.125	A
2 - South	1 - A249 onslip (SB)			656				635				
	2 - B2005 - link	637	159	79	1844	0.345	634	577	0.0	0.5	2.970	A
	3 - A249 offslip (SB)	334	84	714	1233	0.271	333	0	0.0	0.4	3.992	A
	4 - Swale Way	977	244	455	1160	0.843	958	591	0.0	4.8	16.573	C
	5 - Grovehurst Road	402	101	893	862	0.466	399	520	0.0	0.9	7.705	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	748	187	672	1000	0.748	742	0	1.4	2.8	13.657	B
	2 - Grovehurst Road	204	51	1029	907	0.225	204	385	0.2	0.3	5.119	A
	3 - A249 onslip (NB)			761				472				
	4 - B2005 - link	672	168	0	1730	0.389	672	761	0.5	0.6	3.400	A
2 - South	1 - A249 onslip (SB)			761				721				
	2 - B2005 - link	761	190	95	1835	0.415	761	667	0.5	0.7	3.349	A
	3 - A249 offslip (SB)	399	100	855	1104	0.362	398	0	0.4	0.6	5.098	A
	4 - Swale Way	1167	292	545	1101	1.060	1074	708	4.8	28.0	68.052	F
	5 - Grovehurst Road	480	120	1005	775	0.620	477	614	0.9	1.6	11.990	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	916	229	725	962	0.952	886	0	2.8	10.3	37.616	E
	2 - Grovehurst Road	250	62	1177	782	0.320	249	434	0.3	0.5	6.746	A
	3 - A249 onslip (NB)			914				513				
	4 - B2005 - link	725	181	0	1730	0.419	725	914	0.6	0.7	3.582	A
2 - South	1 - A249 onslip (SB)			835				724				
	2 - B2005 - link	913	228	116	1823	0.501	912	719	0.7	1.0	3.949	A
	3 - A249 offslip (SB)	489	122	1028	946	0.517	487	0	0.6	1.0	7.801	A
	4 - Swale Way	1429	357	659	1026	1.393	1025	856	28.0	129.0	284.550	F
	5 - Grovehurst Road	588	147	975	799	0.736	584	709	1.6	2.6	16.417	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	916	229	726	961	0.953	906	0	10.3	12.7	53.097	F
	2 - Grovehurst Road	250	62	1194	768	0.326	250	438	0.5	0.5	6.952	A
	3 - A249 onslip (NB)			930				513				
	4 - B2005 - link	726	182	0	1730	0.420	726	930	0.7	0.7	3.584	A
2 - South	1 - A249 onslip (SB)			837				723				
	2 - B2005 - link	930	233	117	1822	0.511	930	720	1.0	1.0	4.035	A
	3 - A249 offslip (SB)	489	122	1047	929	0.526	489	0	1.0	1.1	8.171	A
	4 - Swale Way	1429	357	668	1020	1.401	1020	868	129.0	231.2	624.559	F
	5 - Grovehurst Road	588	147	972	801	0.734	588	716	2.6	2.7	16.793	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	748	187	682	993	0.753	786	0	12.7	3.3	20.046	C
	2 - Grovehurst Road	204	51	1070	872	0.234	205	398	0.5	0.3	5.400	A
	3 - A249 onslip (NB)			796				478				
	4 - B2005 - link	681	170	0	1730	0.394	682	796	0.7	0.7	3.434	A
2 - South	1 - A249 onslip (SB)			772				732				

2 - South	2 - B2005 - link	798	199	96	1834	0.435	799	676	1.0	0.8	3.479	A
	3 - A249 offslip (SB)	399	100	895	1067	0.374	401	0	1.1	0.6	5.418	A
	4 - Swale Way	1167	292	563	1089	1.072	1089	733	231.2	250.8	781.133	F
	5 - Grovehurst Road	480	120	1020	763	0.629	484	632	2.7	1.8	13.070	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	626	157	651	1016	0.617	633	0	3.3	1.6	9.548	A
	2 - Grovehurst Road	171	43	929	992	0.172	171	354	0.3	0.2	4.387	A
	3 - A249 onslip (NB)			647				454				
	4 - B2005 - link	650	163	0	1730	0.376	651	647	0.7	0.6	3.337	A
2 - South	1 - A249 onslip (SB)			725				742				
	2 - B2005 - link	647	162	80	1844	0.351	648	645	0.8	0.5	3.015	A
	3 - A249 offslip (SB)	334	84	728	1220	0.274	335	0	0.6	0.4	4.074	A
	4 - Swale Way	977	244	462	1155	0.846	1150	601	250.8	207.4	717.337	F
	5 - Grovehurst Road	402	101	1063	729	0.552	404	550	1.8	1.3	11.163	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.39	0.54	1.29	1.83	1.98			N/A	N/A
	2 - Grovehurst Road	0.20	0.00	0.00	0.20	0.20			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	4 - Swale Way	4.75	0.03	0.30	4.75	21.06			N/A	N/A
	5 - Grovehurst Road	0.86	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.80	0.06	1.03	7.47	11.31			N/A	N/A
	2 - Grovehurst Road	0.29	0.00	0.00	0.29	0.29			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.63	0.21	0.93	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.70	0.10	0.84	1.38	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.56	0.07	0.70	1.34	1.42			N/A	N/A
	4 - Swale Way	27.99	0.79	17.03	67.58	90.34			N/A	N/A
	5 - Grovehurst Road	1.58	0.09	1.16	3.18	4.31			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.33	0.11	3.22	28.59	42.26			N/A	N/A
	2 - Grovehurst Road	0.46	0.03	0.25	0.46	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.25	0.72	0.72			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.00	0.03	0.26	1.00	1.00			N/A	N/A
	3 - A249 offslip (SB)	1.05	0.03	0.26	1.05	1.05			N/A	N/A
	4 - Swale Way	128.99	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.62	0.03	0.31	3.31	12.58			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker



1 - North	1 - A249 offslip (NB)	12.74	0.07	1.53	37.40	61.01			N/A	N/A
	2 - Grovehurst Road	0.48	0.03	0.32	1.44	1.93			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.27	0.72	1.07			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.04	0.03	0.27	1.04	1.43			N/A	N/A
	3 - A249 offslip (SB)	1.10	0.03	0.28	1.10	3.75			N/A	N/A
	4 - Swale Way	231.22	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.68	0.03	0.28	2.68	6.94			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.26	0.04	0.41	8.90	16.65			N/A	N/A
	2 - Grovehurst Road	0.31	0.00	0.00	0.31	0.31			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.65	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.77	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.60	0.10	0.83	1.37	1.43			N/A	N/A
	4 - Swale Way	250.75	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.76	0.05	0.65	4.50	6.84			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.65	0.03	0.31	2.56	8.29			N/A	N/A
	2 - Grovehurst Road	0.21	0.00	0.00	0.21	0.21			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.54	0.54	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.38	0.03	0.30	0.94	1.22			N/A	N/A
	4 - Swale Way	207.44	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.26	0.05	0.45	3.15	4.97			N/A	N/A

# 2031 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	233.21	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	478.79	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D29	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1109	100.000
	2 - Grovehurst Road		ONE HOUR	✓	737	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	620	100.000
	4 - Swale Way		ONE HOUR	✓	769	100.000

5 - Grovehurst Road	ONE HOUR	✓	775	100.000
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## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	123	0	986
		2 - Grovehurst Road	0	0	38	699
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	159	403	0	

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	419	0	0	1033	231
		3 - A249 offslip (SB)	1	22	0	381	216
		4 - Swale Way	462	229	0	0	78
	5 - Grovehurst Road	289	313	0	173	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	2	0	16
		2 - Grovehurst Road	0	0	5	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	6	0	

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	16	5
		3 - A249 offslip (SB)	0	5	0	9	3
		4 - Swale Way	36	10	0	0	9
	5 - Grovehurst Road	0	1	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.08	149.53	55.2	115.4	F	1018	1526
	2 - Grovehurst Road	1.30	546.65	104.4	157.7	F	676	1014
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.31	3.10	0.4	1.9	A	491	736
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.84	11.53	5.0	23.6	B	1510	2265
	3 - A249 offslip (SB)	1.83	2180.71	246.2	187.3	F	569	853
	4 - Swale Way	0.99	79.77	18.3	68.9	F	706	1058
	5 - Grovehurst Road	1.38	616.73	125.0	181.4	F	711	1067

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	835	209	416	1208	0.691	826	0	0.0	2.2	9.241	A
	2 - Grovehurst Road	555	139	1033	897	0.618	549	209	0.0	1.6	10.151	B
	3 - A249 onslip (NB)			1255				326				
	4 - B2005 - link	417	104	0	1674	0.249	416	1255	0.0	0.3	2.859	A
2 - South	1 - A249 onslip (SB)			548				869				
	2 - B2005 - link	1251	313	129	1922	0.651	1244	419	0.0	1.8	5.253	A
	3 - A249 offslip (SB)	467	117	1373	690	0.677	459	0	0.0	2.0	15.102	C
	4 - Swale Way	579	145	657	916	0.632	572	1174	0.0	1.7	10.293	B
	5 - Grovehurst Road	583	146	841	884	0.660	576	389	0.0	1.9	11.432	B

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	997	249	489	1151	0.866	983	0	2.2	5.6	19.997	C
	2 - Grovehurst Road	663	166	1225	743	0.891	644	247	1.6	6.1	31.900	D
	3 - A249 onslip (NB)			1485				384				
	4 - B2005 - link	489	122	0	1674	0.292	489	1485	0.3	0.4	3.038	A
2 - South	1 - A249 onslip (SB)			642				1030				
	2 - B2005 - link	1482	370	150	1909	0.776	1476	492	1.8	3.3	8.200	A
	3 - A249 offslip (SB)	557	139	1626	471	1.183	459	0	2.0	26.7	136.510	F
	4 - Swale Way	691	173	747	864	0.800	683	1338	1.7	3.6	19.140	C
	5 - Grovehurst Road	697	174	999	754	0.925	673	432	1.9	7.7	37.344	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1221	305	509	1135	1.075	1113	0	5.6	32.4	73.987	F
	2 - Grovehurst Road	811	203	1355	638	1.273	632	268	6.1	50.9	178.041	F
	3 - A249 onslip (NB)			1590				398				
	4 - B2005 - link	509	127	0	1674	0.304	509	1590	0.4	0.4	3.090	A
2 - South	1 - A249 onslip (SB)			651				1117				
	2 - B2005 - link	1593	398	141	1914	0.832	1588	510	3.3	4.7	10.813	B
	3 - A249 offslip (SB)	683	171	1729	381	1.789	381	0	26.7	102.0	630.349	F
	4 - Swale Way	847	212	760	857	0.989	808	1350	3.6	13.4	51.226	F
	5 - Grovehurst Road	853	213	1135	636	1.342	633	433	7.7	62.8	216.483	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1221	305	509	1135	1.075	1130	0	32.4	55.2	149.535	F
	2 - Grovehurst Road	811	203	1370	625	1.298	625	269	50.9	97.5	436.091	F
	3 - A249 onslip (NB)			1597				397				
	4 - B2005 - link	509	127	0	1674	0.304	509	1597	0.4	0.4	3.090	A
2 - South	1 - A249 onslip (SB)			647				1126				
	2 - B2005 - link	1602	400	138	1917	0.836	1601	509	4.7	4.9	11.327	B
	3 - A249 offslip (SB)	683	171	1739	373	1.832	373	0	102.0	179.5	1372.680	F
	4 - Swale Way	847	212	762	855	0.990	827	1349	13.4	18.3	79.773	F
	5 - Grovehurst Road	853	213	1156	618	1.381	618	433	62.8	121.7	527.657	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	997	249	509	1136	0.878	1115	0	55.2	25.6	133.867	F
	2 - Grovehurst Road	663	166	1357	636	1.041	635	268	97.5	104.4	546.651	F
	3 - A249 onslip (NB)			1594				398				
	4 - B2005 - link	509	127	0	1674	0.304	509	1594	0.4	0.4	3.090	A

2 - South	1 - A249 onslip (SB)			664				1101				
	2 - B2005 - link	1597	399	153	1907	0.837	1597	511	4.9	5.0	11.529	B
	3 - A249 offslip (SB)	557	139	1749	364	1.529	364	0	179.5	227.8	1941.722	F
	4 - Swale Way	691	173	757	858	0.805	746	1356	18.3	4.7	40.287	E
	5 - Grovehurst Road	697	174	1081	685	1.017	683	422	121.7	125.0	616.730	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	835	209	512	1133	0.737	925	0	25.6	3.0	24.464	C
	2 - Grovehurst Road	555	139	1190	773	0.718	766	247	104.4	51.6	369.255	F
	3 - A249 onslip (NB)			1549				407				
	4 - B2005 - link	512	128	0	1674	0.306	512	1549	0.4	0.4	3.098	A
2 - South	1 - A249 onslip (SB)			700				1041				
	2 - B2005 - link	1534	384	182	1889	0.812	1536	518	5.0	4.5	10.272	B
	3 - A249 offslip (SB)	467	117	1718	393	1.187	393	0	227.8	246.2	2180.711	F
	4 - Swale Way	579	145	745	865	0.669	589	1366	4.7	2.1	13.501	B
	5 - Grovehurst Road	583	146	927	821	0.711	814	408	125.0	67.4	427.418	F

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.17	0.17	1.20	4.16	5.41			N/A	N/A
	2 - Grovehurst Road	1.57	0.04	0.35	3.86	8.03			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.83	0.66	1.34	2.23	2.65			N/A	N/A
	3 - A249 offslip (SB)	1.98	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	1.67	0.53	1.04	2.45	2.87			N/A	N/A
	5 - Grovehurst Road	1.87	0.03	0.34	4.28	9.77			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	5.56	0.10	1.92	14.69	21.21			N/A	N/A
	2 - Grovehurst Road	6.11	0.08	1.38	17.05	25.89			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.41	0.00	0.00	0.41	0.41			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	3.34	0.06	1.13	9.04	13.79			N/A	N/A
	3 - A249 offslip (SB)	26.69	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	3.63	0.08	1.15	9.35	13.50			N/A	N/A
	5 - Grovehurst Road	7.70	0.10	2.30	21.16	31.30			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	32.45	6.71	27.63	59.86	72.03			N/A	N/A
	2 - Grovehurst Road	50.88	23.71	48.06	75.70	85.08			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.44	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.66	0.03	0.31	4.97	21.52			N/A	N/A
	3 - A249 offslip (SB)	102.04	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	13.42	0.29	7.30	33.23	45.27			N/A	N/A
	5 - Grovehurst Road	62.84	32.77	60.13	89.72	99.56			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or	Probability of exactly reaching
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									exceeding marker	marker
1 - North	1 - A249 offslip (NB)	55.18	14.57	48.72	97.43	115.38			N/A	N/A
	2 - Grovehurst Road	97.53	57.29	94.57	132.86	145.35			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.44	0.03	0.29	1.20	1.92			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.88	0.03	0.28	4.88	8.06			N/A	N/A
	3 - A249 offslip (SB)	179.54	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	18.31	0.20	8.12	48.63	68.86			N/A	N/A
	5 - Grovehurst Road	121.71	78.66	119.03	158.67	171.33			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	25.59	4.08	21.01	49.27	60.22			N/A	N/A
	2 - Grovehurst Road	104.37	59.90	101.03	143.74	157.73			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.44	0.00	0.00	0.44	0.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.98	0.05	0.83	14.30	23.59			N/A	N/A
	3 - A249 offslip (SB)	227.78	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	4.72	0.05	0.46	13.39	23.90			N/A	N/A
	5 - Grovehurst Road	125.03	77.02	121.83	166.88	181.42			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.98	0.03	0.31	4.38	14.93			N/A	N/A
	2 - Grovehurst Road	51.63	23.56	48.66	77.38	87.14			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.44	0.00	0.00	0.44	0.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.50	0.14	2.16	10.79	14.77			N/A	N/A
	3 - A249 offslip (SB)	246.18	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	2.10	0.03	0.31	3.50	10.79			N/A	N/A
	5 - Grovehurst Road	67.36	31.93	63.86	99.91	112.11			N/A	N/A

# 2031 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	310.55	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	730.37	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D30	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1192	100.000
	2 - Grovehurst Road		ONE HOUR	✓	389	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	529	100.000
	4 - Swale Way		ONE HOUR	✓	1376	100.000

5 - Grovehurst Road	ONE HOUR	✓	613	100.000
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## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	430	0	762
		2 - Grovehurst Road	0	0	34	355
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	277	560	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	187	0	0	524	402
		3 - A249 offslip (SB)	1	39	0	202	287
		4 - Swale Way	780	435	0	0	161
		5 - Grovehurst Road	150	356	0	107	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	0	0	19
		2 - Grovehurst Road	0	0	0	0
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	3	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	1	0	0	27	1
		3 - A249 offslip (SB)	0	8	0	8	3
		4 - Swale Way	17	3	0	0	3
		5 - Grovehurst Road	0	1	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.29	565.98	168.5	200.0	F	1094	1641
	2 - Grovehurst Road	0.51	8.59	1.0	2.4	A	357	535
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.41	3.54	0.7	1.5	A	656	984
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.55	4.21	1.2	1.9	A	968	1452
	3 - A249 offslip (SB)	0.66	12.22	1.9	5.6	B	485	728
	4 - Swale Way	1.73	1847.29	504.9	180.3	F	1263	1894
	5 - Grovehurst Road	0.83	25.85	4.6	23.5	D	562	844



## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	897	224	599	1103	0.814	881	0	0.0	4.0	15.315	C
	2 - Grovehurst Road	293	73	965	978	0.300	291	516	0.0	0.4	5.232	A
	3 - A249 onslip (NB)			829				426				
	4 - B2005 - link	602	150	0	1730	0.348	599	829	0.0	0.5	3.179	A
2 - South	1 - A249 onslip (SB)			679				798				
	2 - B2005 - link	827	207	80	1906	0.434	824	599	0.0	0.8	3.317	A
	3 - A249 offslip (SB)	398	100	903	1092	0.365	396	0	0.0	0.6	5.154	A
	4 - Swale Way	1036	259	681	1022	1.014	966	619	0.0	17.4	45.187	E
	5 - Grovehurst Road	461	115	1022	782	0.590	456	625	0.0	1.4	10.867	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1072	268	651	1063	1.008	1017	0	4.0	17.6	50.652	F
	2 - Grovehurst Road	350	87	1086	877	0.399	349	583	0.4	0.7	6.801	A
	3 - A249 onslip (NB)			969				466				
	4 - B2005 - link	652	163	0	1730	0.377	651	969	0.5	0.6	3.338	A
2 - South	1 - A249 onslip (SB)			746				829				
	2 - B2005 - link	964	241	96	1896	0.509	963	650	0.8	1.0	3.856	A
	3 - A249 offslip (SB)	476	119	1059	953	0.499	474	0	0.6	1.0	7.488	A
	4 - Swale Way	1237	309	803	942	1.314	940	730	17.4	91.7	223.478	F
	5 - Grovehurst Road	551	138	1027	779	0.707	548	715	1.4	2.3	15.290	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1312	328	708	1020	1.286	1018	0	17.6	91.2	202.458	F
	2 - Grovehurst Road	428	107	1124	849	0.505	427	602	0.7	1.0	8.512	A
	3 - A249 onslip (NB)			1040				511				
	4 - B2005 - link	708	177	0	1730	0.409	708	1040	0.6	0.7	3.523	A
2 - South	1 - A249 onslip (SB)			823				834				
	2 - B2005 - link	1028	257	116	1883	0.546	1027	707	1.0	1.2	4.201	A
	3 - A249 offslip (SB)	582	146	1144	878	0.663	579	0	1.0	1.9	11.882	B
	4 - Swale Way	1515	379	901	876	1.729	876	821	91.7	251.4	711.688	F
	5 - Grovehurst Road	675	169	990	810	0.834	667	788	2.3	4.4	23.799	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1312	328	712	1017	1.291	1017	0	91.2	165.1	454.457	F
	2 - Grovehurst Road	428	107	1126	847	0.506	428	602	1.0	1.0	8.591	A
	3 - A249 onslip (NB)			1041				514				
	4 - B2005 - link	712	178	0	1730	0.412	712	1041	0.7	0.7	3.536	A
2 - South	1 - A249 onslip (SB)			828				835				
	2 - B2005 - link	1028	257	118	1883	0.546	1028	711	1.2	1.2	4.212	A
	3 - A249 offslip (SB)	582	146	1146	876	0.665	582	0	1.9	1.9	12.221	B
	4 - Swale Way	1515	379	904	875	1.732	875	824	251.4	411.5	1369.530	F
	5 - Grovehurst Road	675	169	989	811	0.833	674	790	4.4	4.6	25.850	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1072	268	656	1060	1.011	1058	0	165.1	168.5	565.975	F
	2 - Grovehurst Road	350	87	1115	852	0.410	351	599	1.0	0.7	7.199	A
	3 - A249 onslip (NB)			997				470				
	4 - B2005 - link	656	164	0	1730	0.379	656	997	0.7	0.6	3.352	A

2 - South	1 - A249 onslip (SB)			752				831				
	2 - B2005 - link	994	248	98	1895	0.524	994	654	1.2	1.1	3.999	A
	3 - A249 offslip (SB)	476	119	1092	924	0.515	479	0	1.9	1.1	8.156	A
	4 - Swale Way	1237	309	822	929	1.332	929	749	411.5	488.5	1712.460	F
	5 - Grovehurst Road	551	138	1023	783	0.704	560	728	4.6	2.5	16.687	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	897	224	609	1096	0.819	1089	0	168.5	120.5	478.385	F
	2 - Grovehurst Road	293	73	1104	859	0.341	294	594	0.7	0.5	6.380	A
	3 - A249 onslip (NB)			964				433				
	4 - B2005 - link	608	152	0	1730	0.352	609	964	0.6	0.5	3.211	A
2 - South	1 - A249 onslip (SB)			688				827				
	2 - B2005 - link	968	242	81	1905	0.508	969	606	1.1	1.0	3.848	A
	3 - A249 offslip (SB)	398	100	1050	960	0.415	400	0	1.1	0.7	6.439	A
	4 - Swale Way	1036	259	760	970	1.068	970	690	488.5	504.9	1847.292	F
	5 - Grovehurst Road	461	115	1050	762	0.606	465	680	2.5	1.6	12.294	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.98	0.04	0.37	9.89	21.43			N/A	N/A
	2 - Grovehurst Road	0.42	0.00	0.00	0.42	0.42			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.76	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.57	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	17.42	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.40	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	17.58	0.43	10.25	42.78	57.60			N/A	N/A
	2 - Grovehurst Road	0.66	0.14	0.89	1.38	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.03	0.11	0.97	1.63	1.93			N/A	N/A
	3 - A249 offslip (SB)	0.98	0.08	0.88	1.68	2.05			N/A	N/A
	4 - Swale Way	91.74	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.29	0.09	1.34	5.34	7.46			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	91.18	48.26	87.55	129.86	143.90			N/A	N/A
	2 - Grovehurst Road	1.00	0.03	0.26	1.00	1.00			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.69	0.03	0.25	0.69	0.69			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.19	0.03	0.26	1.19	1.19			N/A	N/A
	3 - A249 offslip (SB)	1.90	0.03	0.28	1.90	5.59			N/A	N/A
	4 - Swale Way	251.40	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.37	0.04	0.38	11.14	23.54			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or	Probability of exactly reaching

									exceeding marker	marker
1 - North	1 - A249 offslip (NB)	165.12	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.01	0.03	0.27	1.01	2.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.70	0.03	0.27	0.70	1.47			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.20	0.03	0.26	1.20	1.20			N/A	N/A
	3 - A249 offslip (SB)	1.94	0.03	0.28	1.94	4.11			N/A	N/A
	4 - Swale Way	411.48	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.62	0.03	0.31	5.75	22.18			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	168.49	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.70	0.14	0.89	1.38	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.11	0.55	1.06	1.11	1.55			N/A	N/A
	3 - A249 offslip (SB)	1.08	0.08	0.91	1.91	2.64			N/A	N/A
	4 - Swale Way	488.48	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.51	0.04	0.44	6.90	11.93			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	120.49	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.52	0.05	0.50	1.30	1.40			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.55	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.04	0.55	1.03	1.10	1.10			N/A	N/A
	3 - A249 offslip (SB)	0.72	0.05	0.46	1.41	1.95			N/A	N/A
	4 - Swale Way	504.89	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.59	0.04	0.37	4.02	7.89			N/A	N/A

# 2031 + WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	246.07	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	503.30	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D31	2031 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1116	100.000
	2 - Grovehurst Road		ONE HOUR	✓	737	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	620	100.000
	4 - Swale Way		ONE HOUR	✓	776	100.000

5 - Grovehurst Road	ONE HOUR	✓	775	100.000
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## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	123	0	993
		2 - Grovehurst Road	0	0	38	699
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	159	403	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	419	0	0	1040	231
		3 - A249 offslip (SB)	1	22	0	381	216
		4 - Swale Way	469	229	0	0	78
		5 - Grovehurst Road	289	313	0	173	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	2	0	17
		2 - Grovehurst Road	0	0	5	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	6	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	16	5
		3 - A249 offslip (SB)	0	5	0	9	3
		4 - Swale Way	37	10	0	0	9
		5 - Grovehurst Road	0	1	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.09	164.68	61.4	121.3	F	1024	1536
	2 - Grovehurst Road	1.30	566.26	106.8	162.6	F	676	1014
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.30	3.09	0.4	1.9	A	488	732
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.84	11.59	5.0	24.6	B	1518	2277
	3 - A249 offslip (SB)	1.84	2294.94	252.6	187.3	F	569	853
	4 - Swale Way	1.00	89.80	21.2	72.3	F	712	1068
	5 - Grovehurst Road	1.39	653.97	132.5	190.0	F	711	1067

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	840	210	415	1198	0.701	831	0	0.0	2.3	9.582	A
	2 - Grovehurst Road	555	139	1037	888	0.625	548	209	0.0	1.6	10.412	B
	3 - A249 onslip (NB)			1260				326				
	4 - B2005 - link	417	104	0	1674	0.249	415	1260	0.0	0.3	2.859	A
2 - South	1 - A249 onslip (SB)			548				876				
	2 - B2005 - link	1263	316	129	1922	0.657	1255	419	0.0	1.9	5.341	A
	3 - A249 offslip (SB)	467	117	1384	680	0.686	458	0	0.0	2.1	15.720	C
	4 - Swale Way	584	146	660	909	0.642	577	1183	0.0	1.7	10.630	B
	5 - Grovehurst Road	583	146	847	876	0.666	576	389	0.0	1.9	11.728	B

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1003	251	487	1143	0.878	988	0	2.3	6.0	21.403	C
	2 - Grovehurst Road	663	166	1229	734	0.903	643	247	1.6	6.6	34.047	D
	3 - A249 onslip (NB)			1489				383				
	4 - B2005 - link	488	122	0	1674	0.291	487	1489	0.3	0.4	3.035	A
2 - South	1 - A249 onslip (SB)			640				1036				
	2 - B2005 - link	1493	373	150	1909	0.782	1487	490	1.9	3.5	8.411	A
	3 - A249 offslip (SB)	557	139	1637	461	1.208	451	0	2.1	28.8	147.681	F
	4 - Swale Way	698	174	746	860	0.811	689	1342	1.7	3.9	20.128	C
	5 - Grovehurst Road	697	174	1005	744	0.936	671	429	1.9	8.3	39.864	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1229	307	505	1130	1.088	1111	0	6.0	35.5	79.841	F
	2 - Grovehurst Road	811	203	1351	634	1.280	629	265	6.6	52.1	183.708	F
	3 - A249 onslip (NB)			1585				395				
	4 - B2005 - link	505	126	0	1674	0.302	505	1585	0.4	0.4	3.080	A
2 - South	1 - A249 onslip (SB)			646				1119				
	2 - B2005 - link	1597	399	140	1915	0.834	1592	506	3.5	4.7	10.944	B
	3 - A249 offslip (SB)	683	171	1732	379	1.803	378	0	28.8	104.9	658.098	F
	4 - Swale Way	854	214	758	853	1.002	810	1352	3.9	14.9	55.496	F
	5 - Grovehurst Road	853	213	1137	630	1.355	627	431	8.3	64.9	226.100	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1229	307	505	1130	1.088	1125	0	35.5	61.4	164.678	F
	2 - Grovehurst Road	811	203	1364	623	1.302	623	267	52.1	99.3	446.337	F
	3 - A249 onslip (NB)			1592				394				
	4 - B2005 - link	505	126	0	1674	0.302	505	1592	0.4	0.4	3.080	A
2 - South	1 - A249 onslip (SB)			642				1128				
	2 - B2005 - link	1605	401	137	1917	0.837	1604	505	4.7	4.9	11.433	B
	3 - A249 offslip (SB)	683	171	1741	371	1.842	371	0	104.9	182.9	1410.295	F
	4 - Swale Way	854	214	760	852	1.003	830	1351	14.9	21.2	89.796	F
	5 - Grovehurst Road	853	213	1158	612	1.394	612	432	64.9	125.3	550.878	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1003	251	506	1129	0.888	1111	0	61.4	34.4	157.717	F
	2 - Grovehurst Road	663	166	1351	633	1.046	632	266	99.3	106.8	566.263	F
	3 - A249 onslip (NB)			1589				395				
	4 - B2005 - link	506	126	0	1674	0.302	506	1589	0.4	0.4	3.081	A

2 - South	1 - A249 onslip (SB)			656				1106				
	2 - B2005 - link	1600	400	149	1909	0.838	1600	507	4.9	5.0	11.586	B
	3 - A249 offslip (SB)	557	139	1749	364	1.530	364	0	182.9	231.2	2006.602	F
	4 - Swale Way	698	174	756	854	0.817	761	1357	21.2	5.2	49.274	E
	5 - Grovehurst Road	697	174	1095	668	1.042	668	422	125.3	132.5	653.975	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	840	210	508	1127	0.745	965	0	34.4	3.2	37.142	E
	2 - Grovehurst Road	555	139	1223	740	0.750	733	250	106.8	62.4	417.745	F
	3 - A249 onslip (NB)			1554				402				
	4 - B2005 - link	508	127	0	1674	0.304	508	1554	0.4	0.4	3.088	A
2 - South	1 - A249 onslip (SB)			694				1046				
	2 - B2005 - link	1550	388	180	1890	0.820	1551	514	5.0	4.7	10.693	B
	3 - A249 offslip (SB)	467	117	1731	381	1.224	381	0	231.2	252.6	2294.943	F
	4 - Swale Way	584	146	744	861	0.678	596	1369	5.2	2.2	14.147	B
	5 - Grovehurst Road	583	146	935	811	0.720	804	405	132.5	77.3	471.181	F

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.26	0.16	1.23	4.51	5.84			N/A	N/A
	2 - Grovehurst Road	1.61	0.03	0.32	3.31	8.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.88	0.67	1.38	2.39	2.74			N/A	N/A
	3 - A249 offslip (SB)	2.07	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	1.74	0.51	1.09	2.65	3.06			N/A	N/A
	5 - Grovehurst Road	1.92	0.03	0.33	3.93	10.13			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	6.01	0.11	2.32	15.68	22.36			N/A	N/A
	2 - Grovehurst Road	6.59	0.07	1.34	18.61	28.61			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.41	0.00	0.00	0.41	0.41			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	3.45	0.07	1.18	9.36	14.21			N/A	N/A
	3 - A249 offslip (SB)	28.78	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	3.86	0.09	1.31	9.89	14.22			N/A	N/A
	5 - Grovehurst Road	8.32	0.10	2.62	22.84	33.65			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	35.54	8.74	30.98	63.26	75.20			N/A	N/A
	2 - Grovehurst Road	52.12	23.96	49.17	77.93	87.69			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.72	0.03	0.31	5.21	21.99			N/A	N/A
	3 - A249 offslip (SB)	104.86	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	14.94	0.48	9.10	35.42	47.15			N/A	N/A
	5 - Grovehurst Road	64.91	34.00	62.14	92.52	102.60			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or	Probability of exactly reaching
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									exceeding marker	marker
1 - North	1 - A249 offslip (NB)	61.36	19.20	55.40	103.87	121.34			N/A	N/A
	2 - Grovehurst Road	99.32	58.35	96.32	135.34	148.06			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.03	0.30	1.20	1.89			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.94	0.03	0.28	4.94	8.34			N/A	N/A
	3 - A249 offslip (SB)	182.88	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	21.15	0.38	11.64	52.96	72.26			N/A	N/A
	5 - Grovehurst Road	125.26	81.59	122.59	162.73	175.54			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	34.39	9.37	30.38	59.75	70.50			N/A	N/A
	2 - Grovehurst Road	106.83	60.48	103.28	147.99	162.64			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	5.03	0.05	0.53	14.38	24.58			N/A	N/A
	3 - A249 offslip (SB)	231.18	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	5.21	0.05	0.48	14.88	26.11			N/A	N/A
	5 - Grovehurst Road	132.51	83.25	129.35	175.26	190.00			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.18	0.03	0.32	4.81	16.03			N/A	N/A
	2 - Grovehurst Road	62.37	25.42	58.13	97.48	111.11			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.74	0.15	2.35	11.32	15.46			N/A	N/A
	3 - A249 offslip (SB)	252.56	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	2.20	0.03	0.31	3.57	11.23			N/A	N/A
	5 - Grovehurst Road	77.26	36.84	73.36	114.53	128.46			N/A	N/A



# 2031 + WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	308.46	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	784.92	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D32	2031 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1194	100.000
	2 - Grovehurst Road		ONE HOUR	✓	389	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	529	100.000
	4 - Swale Way		ONE HOUR	✓	1394	100.000

5 - Grovehurst Road	ONE HOUR	✓	613	100.000
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## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	430	0	764
		2 - Grovehurst Road	0	0	34	355
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	277	561	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	187	0	0	526	402
		3 - A249 offslip (SB)	1	39	0	202	287
		4 - Swale Way	797	436	0	0	161
		5 - Grovehurst Road	150	356	0	107	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	0	0	19
		2 - Grovehurst Road	0	0	0	0
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	3	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	1	0	0	27	1
		3 - A249 offslip (SB)	0	8	0	8	3
		4 - Swale Way	18	3	0	0	3
		5 - Grovehurst Road	0	1	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.29	560.55	167.2	200.0	F	1096	1643
	2 - Grovehurst Road	0.51	8.60	1.0	2.5	A	357	535
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.41	3.52	0.7	1.5	A	652	978
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.55	4.23	1.2	1.9	A	971	1456
	3 - A249 offslip (SB)	0.67	12.33	2.0	5.8	B	485	728
	4 - Swale Way	1.77	1965.84	536.0	179.3	F	1279	1919
	5 - Grovehurst Road	0.83	26.08	4.7	23.7	D	562	844

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	899	225	597	1105	0.814	883	0	0.0	4.0	15.289	C
	2 - Grovehurst Road	293	73	964	977	0.300	291	515	0.0	0.4	5.233	A
	3 - A249 onslip (NB)			831				425				
	4 - B2005 - link	599	150	0	1730	0.346	597	831	0.0	0.5	3.172	A
2 - South	1 - A249 onslip (SB)			676				804				
	2 - B2005 - link	828	207	80	1905	0.435	825	597	0.0	0.8	3.323	A
	3 - A249 offslip (SB)	398	100	905	1091	0.365	396	0	0.0	0.6	5.165	A
	4 - Swale Way	1049	262	681	1016	1.033	968	620	0.0	20.3	50.434	F
	5 - Grovehurst Road	461	115	1025	775	0.595	456	624	0.0	1.4	11.089	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1073	268	647	1067	1.006	1020	0	4.0	17.4	50.086	F
	2 - Grovehurst Road	350	87	1086	877	0.399	349	581	0.4	0.7	6.799	A
	3 - A249 onslip (NB)			971				463				
	4 - B2005 - link	647	162	0	1730	0.374	647	971	0.5	0.6	3.323	A
2 - South	1 - A249 onslip (SB)			741				831				
	2 - B2005 - link	967	242	96	1896	0.510	966	645	0.8	1.0	3.868	A
	3 - A249 offslip (SB)	476	119	1061	951	0.500	474	0	0.6	1.0	7.522	A
	4 - Swale Way	1253	313	803	936	1.339	935	732	20.3	100.0	246.351	F
	5 - Grovehurst Road	551	138	1024	777	0.709	548	713	1.4	2.3	15.410	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1315	329	703	1024	1.284	1021	0	17.4	90.7	200.509	F
	2 - Grovehurst Road	428	107	1124	848	0.505	427	600	0.7	1.0	8.515	A
	3 - A249 onslip (NB)			1043				508				
	4 - B2005 - link	704	176	0	1730	0.407	703	1043	0.6	0.7	3.507	A
2 - South	1 - A249 onslip (SB)			819				835				
	2 - B2005 - link	1031	258	116	1883	0.547	1030	702	1.0	1.2	4.217	A
	3 - A249 offslip (SB)	582	146	1146	876	0.665	579	0	1.0	1.9	11.978	B
	4 - Swale Way	1535	384	902	871	1.762	871	823	100.0	265.9	762.455	F
	5 - Grovehurst Road	675	169	987	808	0.835	667	786	2.3	4.4	23.983	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1315	329	707	1020	1.288	1020	0	90.7	164.3	450.608	F
	2 - Grovehurst Road	428	107	1126	847	0.506	428	601	1.0	1.0	8.597	A
	3 - A249 onslip (NB)			1044				511				
	4 - B2005 - link	708	177	0	1730	0.409	707	1044	0.7	0.7	3.520	A
2 - South	1 - A249 onslip (SB)			824				836				
	2 - B2005 - link	1031	258	118	1882	0.548	1031	706	1.2	1.2	4.228	A
	3 - A249 offslip (SB)	582	146	1148	874	0.667	582	0	1.9	2.0	12.331	B
	4 - Swale Way	1535	384	904	869	1.765	869	826	265.9	432.3	1450.868	F
	5 - Grovehurst Road	675	169	986	809	0.834	674	788	4.4	4.7	26.077	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1073	268	651	1063	1.009	1062	0	164.3	167.2	560.552	F
	2 - Grovehurst Road	350	87	1115	852	0.410	351	598	1.0	0.7	7.202	A
	3 - A249 onslip (NB)			1000				467				
	4 - B2005 - link	651	163	0	1730	0.376	651	1000	0.7	0.6	3.340	A

2 - South	1 - A249 onslip (SB)			747				833				
	2 - B2005 - link	996	249	98	1894	0.526	997	649	1.2	1.1	4.012	A
	3 - A249 offslip (SB)	476	119	1094	921	0.516	479	0	2.0	1.1	8.208	A
	4 - Swale Way	1253	313	823	923	1.357	923	751	432.3	514.7	1810.551	F
	5 - Grovehurst Road	551	138	1020	781	0.705	560	726	4.7	2.5	16.801	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	899	225	604	1100	0.817	1093	0	167.2	118.7	471.705	F
	2 - Grovehurst Road	293	73	1103	858	0.341	294	593	0.7	0.5	6.380	A
	3 - A249 onslip (NB)			967				430				
	4 - B2005 - link	603	151	0	1730	0.349	604	967	0.6	0.5	3.196	A
2 - South	1 - A249 onslip (SB)			682				829				
	2 - B2005 - link	971	243	81	1904	0.510	972	601	1.1	1.0	3.861	A
	3 - A249 offslip (SB)	398	100	1053	957	0.416	400	0	1.1	0.7	6.473	A
	4 - Swale Way	1049	262	760	964	1.088	964	692	514.7	536.0	1965.842	F
	5 - Grovehurst Road	461	115	1046	760	0.607	465	679	2.5	1.6	12.358	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.98	0.04	0.38	10.08	21.41			N/A	N/A
	2 - Grovehurst Road	0.42	0.00	0.00	0.42	0.42			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.76	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.57	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	20.31	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.43	0.55	1.00	1.43	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	17.36	0.43	10.11	42.24	56.87			N/A	N/A
	2 - Grovehurst Road	0.65	0.14	0.89	1.38	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.03	0.11	0.98	1.65	1.95			N/A	N/A
	3 - A249 offslip (SB)	0.98	0.08	0.88	1.70	2.10			N/A	N/A
	4 - Swale Way	99.96	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.31	0.09	1.35	5.39	7.51			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	90.66	48.00	87.04	129.10	143.06			N/A	N/A
	2 - Grovehurst Road	1.00	0.03	0.26	1.00	1.00			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.68	0.03	0.25	0.68	0.68			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.20	0.03	0.26	1.20	1.20			N/A	N/A
	3 - A249 offslip (SB)	1.91	0.03	0.28	1.91	5.76			N/A	N/A
	4 - Swale Way	265.90	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.40	0.04	0.38	11.30	23.71			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or	Probability of exactly reaching
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									exceeding marker	marker
1 - North	1 - A249 offslip (NB)	164.28	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.01	0.03	0.27	1.01	2.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.69	0.03	0.27	0.69	1.53			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.20	0.03	0.26	1.20	1.20			N/A	N/A
	3 - A249 offslip (SB)	1.96	0.03	0.28	1.96	4.20			N/A	N/A
	4 - Swale Way	432.26	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.66	0.03	0.31	5.91	22.49			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	167.23	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.71	0.14	0.89	1.38	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.12	0.55	1.06	1.15	1.58			N/A	N/A
	3 - A249 offslip (SB)	1.09	0.08	0.90	1.93	2.67			N/A	N/A
	4 - Swale Way	514.73	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.52	0.04	0.44	6.94	12.02			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	118.67	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.52	0.05	0.50	1.30	1.40			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.54	0.54	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.05	0.55	1.03	1.18	1.18			N/A	N/A
	3 - A249 offslip (SB)	0.72	0.05	0.45	1.43	1.97			N/A	N/A
	4 - Swale Way	536.02	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.59	0.04	0.37	4.04	7.94			N/A	N/A

# 2031 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	246.69	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	509.21	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D33	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1118	100.000
	2 - Grovehurst Road		ONE HOUR	✓	737	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	620	100.000
	4 - Swale Way		ONE HOUR	✓	779	100.000

5 - Grovehurst Road	ONE HOUR	✓	775	100.000
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## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	123	0	995
		2 - Grovehurst Road	0	0	38	699
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	159	403	0	

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	419	0	0	1042	231
		3 - A249 offslip (SB)	1	22	0	381	216
		4 - Swale Way	472	229	0	0	78
	5 - Grovehurst Road	289	313	0	173	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	2	0	17
		2 - Grovehurst Road	0	0	5	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	6	0	

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	16	5
		3 - A249 offslip (SB)	0	5	0	9	3
		4 - Swale Way	38	10	0	0	1
	5 - Grovehurst Road	0	1	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.09	164.89	61.6	121.6	F	1026	1539
	2 - Grovehurst Road	1.30	567.67	107.1	163.0	F	676	1014
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.30	3.08	0.4	1.9	A	487	730
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.84	11.61	5.0	24.7	B	1520	2279
	3 - A249 offslip (SB)	1.84	2303.87	253.2	187.3	F	569	853
	4 - Swale Way	1.01	91.68	21.8	73.0	F	715	1072
	5 - Grovehurst Road	1.41	678.72	137.5	195.7	F	711	1067

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	842	210	415	1198	0.702	833	0	0.0	2.3	9.618	A
	2 - Grovehurst Road	555	139	1039	887	0.626	548	209	0.0	1.6	10.447	B
	3 - A249 onslip (NB)			1261				326				
	4 - B2005 - link	417	104	0	1674	0.249	415	1261	0.0	0.3	2.858	A
2 - South	1 - A249 onslip (SB)			548				878				
	2 - B2005 - link	1264	316	129	1922	0.658	1257	419	0.0	1.9	5.354	A
	3 - A249 offslip (SB)	467	117	1385	679	0.688	458	0	0.0	2.1	15.803	C
	4 - Swale Way	586	147	659	911	0.644	579	1184	0.0	1.8	10.663	B
	5 - Grovehurst Road	583	146	850	871	0.670	576	389	0.0	1.9	11.899	B

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1005	251	487	1144	0.879	990	0	2.3	6.1	21.540	C
	2 - Grovehurst Road	663	166	1230	733	0.904	642	247	1.6	6.6	34.291	D
	3 - A249 onslip (NB)			1490				382				
	4 - B2005 - link	487	122	0	1674	0.291	487	1490	0.3	0.4	3.033	A
2 - South	1 - A249 onslip (SB)			639				1038				
	2 - B2005 - link	1495	374	149	1909	0.783	1488	490	1.9	3.5	8.436	A
	3 - A249 offslip (SB)	557	139	1638	460	1.211	450	0	2.1	29.0	149.010	F
	4 - Swale Way	700	175	745	861	0.813	692	1342	1.8	3.9	20.261	C
	5 - Grovehurst Road	697	174	1008	739	0.943	670	429	1.9	8.7	41.457	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1231	308	503	1131	1.088	1113	0	6.1	35.7	79.999	F
	2 - Grovehurst Road	811	203	1351	634	1.280	629	265	6.6	52.2	184.272	F
	3 - A249 onslip (NB)			1587				393				
	4 - B2005 - link	503	126	0	1674	0.301	503	1587	0.4	0.4	3.074	A
2 - South	1 - A249 onslip (SB)			642				1119				
	2 - B2005 - link	1599	400	139	1916	0.835	1594	503	3.5	4.7	10.979	B
	3 - A249 offslip (SB)	683	171	1732	378	1.806	378	0	29.0	105.2	662.047	F
	4 - Swale Way	858	214	758	854	1.004	812	1352	3.9	15.3	56.243	F
	5 - Grovehurst Road	853	213	1140	624	1.367	622	430	8.7	66.7	234.296	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1231	308	503	1131	1.088	1127	0	35.7	61.6	164.890	F
	2 - Grovehurst Road	811	203	1364	623	1.303	622	266	52.2	99.5	447.353	F
	3 - A249 onslip (NB)			1594				393				
	4 - B2005 - link	503	126	0	1674	0.300	503	1594	0.4	0.4	3.073	A
2 - South	1 - A249 onslip (SB)			638				1128				
	2 - B2005 - link	1607	402	135	1918	0.838	1606	502	4.7	5.0	11.471	B
	3 - A249 offslip (SB)	683	171	1741	370	1.845	370	0	105.2	183.4	1416.796	F
	4 - Swale Way	858	214	760	853	1.005	832	1352	15.3	21.8	91.677	F
	5 - Grovehurst Road	853	213	1160	606	1.407	606	431	66.7	128.5	570.136	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1005	251	503	1131	0.889	1113	0	61.6	34.6	158.076	F
	2 - Grovehurst Road	663	166	1351	633	1.046	632	265	99.5	107.1	567.673	F
	3 - A249 onslip (NB)			1590				394				
	4 - B2005 - link	503	126	0	1674	0.301	503	1590	0.4	0.4	3.075	A



2 - South	1 - A249 onslip (SB)			652				1108				
	2 - B2005 - link	1602	400	147	1910	0.839	1601	505	5.0	5.0	11.614	B
	3 - A249 offslip (SB)	557	139	1749	364	1.531	364	0	183.4	231.7	2013.499	F
	4 - Swale Way	700	175	756	855	0.819	766	1357	21.8	5.3	51.146	F
	5 - Grovehurst Road	697	174	1099	661	1.054	660	422	128.5	137.5	678.716	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	842	210	507	1129	0.746	967	0	34.6	3.2	37.466	E
	2 - Grovehurst Road	555	139	1224	739	0.751	732	250	107.1	62.8	419.903	F
	3 - A249 onslip (NB)			1555				401				
	4 - B2005 - link	507	127	0	1674	0.303	507	1555	0.4	0.4	3.083	A
2 - South	1 - A249 onslip (SB)			691				1046				
	2 - B2005 - link	1552	388	179	1891	0.821	1553	513	5.0	4.8	10.722	B
	3 - A249 offslip (SB)	467	117	1731	381	1.226	381	0	231.7	253.2	2303.872	F
	4 - Swale Way	586	147	743	862	0.680	599	1369	5.3	2.2	14.238	B
	5 - Grovehurst Road	583	146	938	806	0.724	800	405	137.5	83.5	499.079	F

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.28	0.16	1.24	4.54	5.87			N/A	N/A
	2 - Grovehurst Road	1.62	0.03	0.32	3.29	8.47			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.89	0.67	1.38	2.41	2.76			N/A	N/A
	3 - A249 offslip (SB)	2.08	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	1.75	0.51	1.10	2.68	3.14			N/A	N/A
	5 - Grovehurst Road	1.95	0.03	0.32	3.63	10.19			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	6.07	0.12	2.37	15.78	22.48			N/A	N/A
	2 - Grovehurst Road	6.64	0.08	1.37	18.75	28.79			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.41	0.00	0.00	0.41	0.41			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	3.47	0.07	1.18	9.40	14.27			N/A	N/A
	3 - A249 offslip (SB)	29.02	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	3.90	0.09	1.33	9.99	14.37			N/A	N/A
	5 - Grovehurst Road	8.73	0.10	2.79	23.94	35.22			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	35.66	8.81	31.11	63.46	75.43			N/A	N/A
	2 - Grovehurst Road	52.24	24.02	49.28	78.12	87.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.74	0.03	0.31	5.29	22.14			N/A	N/A
	3 - A249 offslip (SB)	105.24	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	15.25	0.54	9.47	35.88	47.59			N/A	N/A
	5 - Grovehurst Road	66.67	35.13	63.87	94.81	105.06			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or	Probability of exactly reaching
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									exceeding marker	marker
1 - North	1 - A249 offslip (NB)	61.55	19.31	55.59	104.09	121.57			N/A	N/A
	2 - Grovehurst Road	99.50	58.48	96.48	135.46	148.12			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.03	0.30	1.20	1.88			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.96	0.03	0.28	4.96	8.50			N/A	N/A
	3 - A249 offslip (SB)	183.40	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	21.75	0.44	12.36	53.83	72.98			N/A	N/A
	5 - Grovehurst Road	128.46	84.32	125.80	166.21	179.04			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	34.59	9.46	30.57	60.02	70.78			N/A	N/A
	2 - Grovehurst Road	107.07	60.64	103.52	148.33	163.02			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	5.04	0.05	0.52	14.42	24.70			N/A	N/A
	3 - A249 offslip (SB)	231.73	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	5.31	0.05	0.49	15.20	26.54			N/A	N/A
	5 - Grovehurst Road	137.54	87.52	134.41	180.81	195.65			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.19	0.03	0.32	4.82	16.08			N/A	N/A
	2 - Grovehurst Road	62.82	25.57	58.55	98.27	112.06			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	4.76	0.15	2.35	11.38	15.54			N/A	N/A
	3 - A249 offslip (SB)	253.24	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	2.22	0.03	0.31	3.58	11.31			N/A	N/A
	5 - Grovehurst Road	83.47	40.35	79.38	123.11	137.85			N/A	N/A

# 2031 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	323.94	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	786.32	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D34	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1197	100.000
	2 - Grovehurst Road		ONE HOUR	✓	389	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	529	100.000
	4 - Swale Way		ONE HOUR	✓	1396	100.000

5 - Grovehurst Road	ONE HOUR	✓	613	100.000
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## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	430	0	767
		2 - Grovehurst Road	0	0	34	355
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	277	561	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	187	0	0	528	402
		3 - A249 offslip (SB)	1	39	0	202	287
		4 - Swale Way	799	436	0	0	161
		5 - Grovehurst Road	150	356	0	107	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	0	0	20
		2 - Grovehurst Road	0	0	0	0
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	3	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	1	0	0	28	1
		3 - A249 offslip (SB)	0	8	0	8	3
		4 - Swale Way	18	3	0	0	3
		5 - Grovehurst Road	0	1	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.30	586.64	175.1	200.0	F	1098	1648
	2 - Grovehurst Road	0.51	8.64	1.0	2.4	A	357	535
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.41	3.52	0.7	1.5	A	652	977
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.55	4.26	1.2	2.0	A	971	1456
	3 - A249 offslip (SB)	0.67	12.44	2.0	5.9	B	485	728
	4 - Swale Way	1.77	1970.03	537.7	179.2	F	1281	1921
	5 - Grovehurst Road	0.84	26.17	4.7	23.8	D	562	844

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	901	225	596	1099	0.820	885	0	0.0	4.1	15.781	C
	2 - Grovehurst Road	293	73	966	972	0.301	291	515	0.0	0.4	5.275	A
	3 - A249 onslip (NB)			833				425				
	4 - B2005 - link	598	150	0	1730	0.346	596	833	0.0	0.5	3.171	A
2 - South	1 - A249 onslip (SB)			676				805				
	2 - B2005 - link	831	208	80	1897	0.438	828	596	0.0	0.8	3.359	A
	3 - A249 offslip (SB)	398	100	908	1085	0.367	396	0	0.0	0.6	5.212	A
	4 - Swale Way	1051	263	682	1015	1.035	968	622	0.0	20.7	51.055	F
	5 - Grovehurst Road	461	115	1025	775	0.596	456	625	0.0	1.4	11.103	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1076	269	646	1061	1.014	1018	0	4.1	18.6	52.924	F
	2 - Grovehurst Road	350	87	1085	873	0.401	349	579	0.4	0.7	6.856	A
	3 - A249 onslip (NB)			971				463				
	4 - B2005 - link	647	162	0	1730	0.374	646	971	0.5	0.6	3.322	A
2 - South	1 - A249 onslip (SB)			740				832				
	2 - B2005 - link	968	242	96	1887	0.513	967	645	0.8	1.0	3.906	A
	3 - A249 offslip (SB)	476	119	1062	946	0.503	474	0	0.6	1.0	7.599	A
	4 - Swale Way	1255	314	803	936	1.341	935	734	20.7	100.7	248.408	F
	5 - Grovehurst Road	551	138	1025	777	0.709	548	713	1.4	2.3	15.420	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1318	329	703	1018	1.295	1016	0	18.6	94.2	209.889	F
	2 - Grovehurst Road	428	107	1122	846	0.506	427	597	0.7	1.0	8.563	A
	3 - A249 onslip (NB)			1040				508				
	4 - B2005 - link	703	176	0	1730	0.407	703	1040	0.6	0.7	3.506	A
2 - South	1 - A249 onslip (SB)			818				836				
	2 - B2005 - link	1029	257	116	1875	0.549	1028	702	1.0	1.2	4.249	A
	3 - A249 offslip (SB)	582	146	1145	873	0.667	579	0	1.0	1.9	12.082	B
	4 - Swale Way	1537	384	900	872	1.762	872	823	100.7	266.9	765.165	F
	5 - Grovehurst Road	675	169	988	808	0.835	667	785	2.3	4.4	24.055	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1318	329	707	1014	1.299	1014	0	94.2	170.1	469.224	F
	2 - Grovehurst Road	428	107	1123	845	0.507	428	598	1.0	1.0	8.643	A
	3 - A249 onslip (NB)			1041				511				
	4 - B2005 - link	707	177	0	1730	0.409	707	1041	0.7	0.7	3.520	A
2 - South	1 - A249 onslip (SB)			824				837				
	2 - B2005 - link	1029	257	118	1874	0.549	1029	706	1.2	1.2	4.260	A
	3 - A249 offslip (SB)	582	146	1147	871	0.668	582	0	1.9	2.0	12.436	B
	4 - Swale Way	1537	384	903	871	1.766	871	826	266.9	433.6	1453.755	F
	5 - Grovehurst Road	675	169	986	809	0.835	674	787	4.4	4.7	26.173	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1076	269	651	1057	1.018	1056	0	170.1	175.1	586.640	F
	2 - Grovehurst Road	350	87	1112	849	0.412	351	595	1.0	0.7	7.240	A
	3 - A249 onslip (NB)			997				466				
	4 - B2005 - link	651	163	0	1730	0.376	651	997	0.7	0.6	3.337	A

2 - South	1 - A249 onslip (SB)			747				833				
	2 - B2005 - link	995	249	98	1886	0.528	996	649	1.2	1.1	4.046	A
	3 - A249 offslip (SB)	476	119	1093	918	0.518	479	0	2.0	1.1	8.266	A
	4 - Swale Way	1255	314	821	924	1.358	924	751	433.6	516.3	1814.148	F
	5 - Grovehurst Road	551	138	1021	781	0.706	560	725	4.7	2.5	16.845	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	901	225	603	1093	0.824	1087	0	175.1	128.6	503.641	F
	2 - Grovehurst Road	293	73	1101	856	0.342	294	590	0.7	0.5	6.412	A
	3 - A249 onslip (NB)			965				430				
	4 - B2005 - link	603	151	0	1730	0.349	603	965	0.6	0.5	3.198	A
2 - South	1 - A249 onslip (SB)			682				830				
	2 - B2005 - link	970	243	81	1896	0.512	971	601	1.1	1.1	3.891	A
	3 - A249 offslip (SB)	398	100	1052	954	0.417	400	0	1.1	0.7	6.507	A
	4 - Swale Way	1051	263	759	965	1.089	965	693	516.3	537.7	1970.027	F
	5 - Grovehurst Road	461	115	1047	760	0.607	465	678	2.5	1.6	12.376	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.13	0.04	0.36	9.83	22.36			N/A	N/A
	2 - Grovehurst Road	0.43	0.00	0.00	0.43	0.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.78	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.58	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	20.66	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.43	0.55	1.00	1.43	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	18.62	0.46	10.95	45.25	60.85			N/A	N/A
	2 - Grovehurst Road	0.66	0.14	0.89	1.38	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.04	0.11	0.98	1.67	1.97			N/A	N/A
	3 - A249 offslip (SB)	0.99	0.08	0.88	1.72	2.17			N/A	N/A
	4 - Swale Way	100.73	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.31	0.09	1.35	5.39	7.52			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	94.16	49.97	90.45	134.00	148.47			N/A	N/A
	2 - Grovehurst Road	1.01	0.03	0.26	1.01	1.01			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.68	0.03	0.25	0.68	0.68			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.20	0.03	0.26	1.20	1.20			N/A	N/A
	3 - A249 offslip (SB)	1.93	0.03	0.28	1.93	5.93			N/A	N/A
	4 - Swale Way	266.94	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.41	0.04	0.39	11.36	23.78			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or	Probability of exactly reaching
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									exceeding marker	marker
1 - North	1 - A249 offslip (NB)	170.09	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.02	0.03	0.27	1.02	2.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.69	0.03	0.27	0.69	1.54			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.21	0.03	0.26	1.21	1.21			N/A	N/A
	3 - A249 offslip (SB)	1.97	0.03	0.28	1.97	4.26			N/A	N/A
	4 - Swale Way	433.56	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.67	0.03	0.31	5.98	22.62			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	175.10	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.71	0.14	0.89	1.38	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.13	0.55	1.07	1.23	1.62			N/A	N/A
	3 - A249 offslip (SB)	1.09	0.07	0.90	1.96	2.73			N/A	N/A
	4 - Swale Way	516.25	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.53	0.04	0.44	6.95	12.05			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	128.60	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.53	0.05	0.50	1.30	1.40			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.54	0.54	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.06	0.55	1.03	1.28	1.28			N/A	N/A
	3 - A249 offslip (SB)	0.72	0.05	0.45	1.46	2.00			N/A	N/A
	4 - Swale Way	537.70	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.60	0.04	0.37	4.05	7.96			N/A	N/A

Junctions 9
ARCADY 9 - Roundabout Module
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**Filename:** Fleet End - Barge Way\_FULLLK3.j9  
**Path:** P:\JNY9290 - Kemsley K5\Transport\Arcady\WKN DCO\Fleet End - Barge Way  
**Report generation date:** 08/07/2019 14:24:02

- »2017, AM
- »2017, PM
- »2024, AM
- »2024, PM
- »2024 + Cumulative Development, AM
- »2024 + Cumulative Development, PM
- »2024 + K3 Operational, AM
- »2024 + K3 Operational, PM
- »2024 + K3 and WKN Operational, AM
- »2024 + K3 and WKN Operational, PM
- »2024 + K3 Operational + Cumulative Development, AM
- »2024 + K3 Operational + Cumulative Development, PM
- »2024 + K3 and WKN Operational + Cumulative Development, AM
- »2024 + K3 and WKN Operational + Cumulative Development, PM
- »2031, AM
- »2031, PM
- »2031 + Cumulative Development, AM
- »2031 + Cumulative Development, PM
- »2031 + K3 Operational, AM
- »2031 + K3 Operational, PM
- »2031 + K3 and WKN Operational, AM
- »2031 + K3 and WKN Operational, PM
- »2031 + K3 Operational + Cumulative Development, AM
- »2031 + K3 Operational + Cumulative Development, PM
- »2031 + K3 and WKN Operational + Cumulative Development, AM
- »2031 + K3 and WKN Operational + Cumulative Development, PM

**Summary of junction performance**

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
<b>2017</b>						
Arm Bar E	0.1	4.29	0.07	0.1	3.32	0.13
Arm Bar S	0.2	3.51	0.17	0.2	3.03	0.14
Arm Fleet	0.0	4.10	0.04	0.1	4.18	0.08
Arm Site	0.0	0.00	0.00	0.0	0.00	0.00
<b>2024</b>						
Arm Bar E	0.1	3.85	0.11	0.2	3.44	0.16
Arm Bar S	0.3	3.74	0.23	0.2	3.27	0.18



Arm Fleet	0.0	4.30	0.04	0.1	4.32	0.09
Arm Site	0.0	5.85	0.03	0.0	5.86	0.04
<b>2024 + Cumulative Development</b>						
Arm Bar E	0.1	3.85	0.11	0.2	3.44	0.16
Arm Bar S	0.3	3.74	0.23	0.2	3.27	0.18
Arm Fleet	0.0	4.30	0.04	0.1	4.32	0.09
Arm Site	0.0	5.85	0.03	0.0	5.86	0.04
<b>2024 + K3 Operational</b>						
Arm Bar E	0.1	4.12	0.13	0.2	3.67	0.19
Arm Bar S	0.3	3.94	0.26	0.3	3.46	0.20
Arm Fleet	0.0	4.39	0.04	0.1	4.39	0.09
Arm Site	0.0	5.98	0.04	0.0	5.95	0.04
<b>2024 + K3 and WKN Operational</b>						
Arm Bar E	0.2	4.23	0.14	0.3	3.79	0.21
Arm Bar S	0.4	4.06	0.27	0.3	3.52	0.21
Arm Fleet	0.0	4.43	0.04	0.1	4.41	0.09
Arm Site	0.0	6.04	0.04	0.0	5.98	0.04
<b>2024 + K3 Operational + Cumulative Development</b>						
Arm Bar E	0.1	4.12	0.13	0.2	3.67	0.19
Arm Bar S	0.3	3.94	0.26	0.3	3.46	0.20
Arm Fleet	0.0	4.39	0.04	0.1	4.39	0.09
Arm Site	0.0	5.98	0.04	0.0	5.95	0.04
<b>2024 + K3 and WKN Operational + Cumulative Development</b>						
Arm Bar E	0.2	4.23	0.14	0.3	3.79	0.21
Arm Bar S	0.4	4.06	0.27	0.3	3.52	0.21
Arm Fleet	0.0	4.43	0.04	0.1	4.41	0.09
Arm Site	0.0	6.04	0.04	0.0	5.97	0.04
<b>2031</b>						
Arm Bar E	0.1	3.85	0.11	0.2	3.44	0.16
Arm Bar S	0.3	3.74	0.23	0.2	3.27	0.18
Arm Fleet	0.0	4.30	0.04	0.1	4.32	0.09
Arm Site	0.0	5.85	0.03	0.0	5.86	0.04
<b>2031 + Cumulative Development</b>						
Arm Bar E	0.1	3.85	0.11	0.2	3.44	0.16
Arm Bar S	0.3	3.74	0.23	0.2	3.27	0.18
Arm Fleet	0.0	4.30	0.04	0.1	4.32	0.09
Arm Site	0.0	5.85	0.03	0.0	5.86	0.04
<b>2031 + K3 Operational</b>						
Arm Bar E	0.1	4.12	0.13	0.2	3.67	0.19
Arm Bar S	0.3	3.94	0.26	0.3	3.46	0.20
Arm Fleet	0.0	4.39	0.04	0.1	4.39	0.09
Arm Site	0.0	5.98	0.04	0.0	5.95	0.04
<b>2031 + K3 and WKN Operational</b>						
Arm Bar E	0.2	4.23	0.14	0.3	3.79	0.21
Arm Bar S	0.4	4.06	0.27	0.3	3.52	0.21
Arm Fleet	0.0	4.43	0.04	0.1	4.41	0.09
Arm Site	0.0	6.04	0.04	0.0	5.98	0.04
<b>2031 + K3 Operational + Cumulative Development</b>						
Arm Bar E	0.1	4.12	0.13	0.2	3.67	0.19
Arm Bar S	0.3	3.94	0.26	0.3	3.46	0.20
Arm Fleet	0.0	4.39	0.04	0.1	4.39	0.09
Arm Site	0.0	5.98	0.04	0.0	5.95	0.04
<b>2031 + K3 and WKN Operational + Cumulative Development</b>						
Arm Bar E	0.2	4.23	0.14	0.3	3.79	0.21
Arm Bar S	0.4	4.06	0.27	0.3	3.52	0.21
Arm Fleet	0.0	4.43	0.04	0.1	4.41	0.09

Arm Site	0.0	6.04	0.04	0.0	5.98	0.04
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Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

## File summary

### File Description

Title	(untitled)
Location	
Site number	
Date	08/11/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR\jack.clarke-williams
Description	

## Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

## Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

## Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓
D21	2031 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D22	2031 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D23	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D24	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D27	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D28	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D29	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D30	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D33	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D34	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

### Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

# 2017, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.78	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Name	Description
Bar E	untitled	
Bar S	untitled	
Fleet	untitled	
Site	untitled	

### Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
Bar E	3.50	7.00	21.0	18.0	44.0	45.0	
Bar S	4.00	6.50	23.0	24.0	45.0	40.0	
Fleet	3.50	7.00	16.5	11.5	44.0	50.0	
Site	3.50	6.50	11.0	13.5	44.0	40.0	

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
Bar E	0.604	1651
Bar S	0.625	1727
Fleet	0.563	1514
Site	0.566	1456

The slope and intercept shown above include any corrections and adjustments.

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	61	100.000
Bar S		ONE HOUR	✓	187	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To				
	Bar E	Bar S	Fleet	Site	
From	Bar E	0	59	2	0
	Bar S	135	0	52	0
	Fleet	1	31	0	0
	Site	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

	To				
	Bar E	Bar S	Fleet	Site	
From	Bar E	0	78	100	0
	Bar S	36	0	50	0
	Fleet	0	55	0	0
	Site	0	0	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.07	4.29	0.1	A	56	84
Bar S	0.17	3.51	0.2	A	172	257
Fleet	0.04	4.10	0.0	A	29	44
Site	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	46	11	23	912	0.050	46	102	0.0	0.1	4.155	A
Bar S	141	35	1	1233	0.114	140	67	0.0	0.1	3.292	A
Fleet	24	6	101	937	0.026	24	41	0.0	0.0	3.943	A
Site	0	0	125	1357	0.000	0	0	0.0	0.0	0.000	A

**07:30 - 07:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	55	14	28	909	0.060	55	122	0.1	0.1	4.212	A
Bar S	168	42	2	1233	0.136	168	81	0.1	0.2	3.380	A
Fleet	29	7	121	927	0.031	29	49	0.0	0.0	4.008	A
Site	0	0	150	1338	0.000	0	0	0.0	0.0	0.000	A

**07:45 - 08:00**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	67	17	34	906	0.074	67	150	0.1	0.1	4.290	A
Bar S	206	51	2	1232	0.167	206	99	0.2	0.2	3.505	A
Fleet	35	9	149	913	0.039	35	59	0.0	0.0	4.099	A
Site	0	0	184	1311	0.000	0	0	0.0	0.0	0.000	A

**08:00 - 08:15**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	67	17	34	906	0.074	67	150	0.1	0.1	4.290	A
Bar S	206	51	2	1232	0.167	206	99	0.2	0.2	3.505	A
Fleet	35	9	149	913	0.039	35	59	0.0	0.0	4.100	A
Site	0	0	184	1311	0.000	0	0	0.0	0.0	0.000	A

**08:15 - 08:30**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	55	14	28	909	0.060	55	122	0.1	0.1	4.214	A
Bar S	168	42	2	1233	0.136	168	81	0.2	0.2	3.384	A
Fleet	29	7	121	927	0.031	29	49	0.0	0.0	4.010	A
Site	0	0	150	1337	0.000	0	0	0.0	0.0	0.000	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	46	11	23	912	0.050	46	102	0.1	0.1	4.159	A
Bar S	141	35	2	1233	0.114	141	68	0.2	0.1	3.295	A
Fleet	24	6	102	937	0.026	24	41	0.0	0.0	3.946	A
Site	0	0	126	1357	0.000	0	0	0.0	0.0	0.000	A

# 2017, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.38	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	141	100.000
Bar S		ONE HOUR	✓	173	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	1	137	3	0
	Bar S	101	2	70	0
	Fleet	3	68	0	0
	Site	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	27	67	0
	Bar S	33	0	14	0
	Fleet	33	53	0	0
	Site	0	0	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.13	3.32	0.1	A	129	194
Bar S	0.14	3.03	0.2	A	159	238
Fleet	0.08	4.18	0.1	A	65	98
Site	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	106	27	52	1256	0.085	106	79	0.0	0.1	3.130	A
Bar S	130	33	3	1380	0.094	130	155	0.0	0.1	2.879	A
Fleet	53	13	78	957	0.056	53	55	0.0	0.1	3.984	A
Site	0	0	131	1352	0.000	0	0	0.0	0.0	0.000	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	127	32	63	1249	0.102	127	94	0.1	0.1	3.208	A
Bar S	156	39	4	1380	0.113	155	186	0.1	0.1	2.940	A
Fleet	64	16	93	949	0.067	64	66	0.1	0.1	4.066	A
Site	0	0	157	1331	0.000	0	0	0.0	0.0	0.000	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	155	39	77	1238	0.125	155	116	0.1	0.1	3.322	A
Bar S	190	48	4	1379	0.138	190	228	0.1	0.2	3.028	A
Fleet	78	20	114	939	0.083	78	80	0.1	0.1	4.182	A
Site	0	0	193	1303	0.000	0	0	0.0	0.0	0.000	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	155	39	77	1238	0.125	155	116	0.1	0.1	3.323	A
Bar S	190	48	4	1379	0.138	190	228	0.2	0.2	3.028	A
Fleet	78	20	115	939	0.083	78	80	0.1	0.1	4.182	A
Site	0	0	193	1303	0.000	0	0	0.0	0.0	0.000	A



17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	127	32	63	1248	0.102	127	94	0.1	0.1	3.211	A
Bar S	156	39	4	1380	0.113	156	186	0.2	0.1	2.940	A
Fleet	64	16	94	949	0.067	64	66	0.1	0.1	4.067	A
Site	0	0	157	1331	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	106	27	53	1256	0.085	106	79	0.1	0.1	3.131	A
Bar S	130	33	3	1380	0.094	130	156	0.1	0.1	2.882	A
Fleet	53	13	78	956	0.056	54	55	0.1	0.1	3.988	A
Site	0	0	132	1351	0.000	0	0	0.0	0.0	0.000	A

# 2024, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.95	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	102	100.000
Bar S		ONE HOUR	✓	262	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	100	2	0
	Bar S	190	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	51	100	0
	Bar S	28	0	50	100
	Fleet	0	55	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.11	3.85	0.1	A	94	140
Bar S	0.23	3.74	0.3	A	240	361
Fleet	0.04	4.30	0.0	A	29	44
Site	0.03	5.85	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	77	19	38	1061	0.072	76	143	0.0	0.1	3.658	A
Bar S	197	49	1	1251	0.158	197	113	0.0	0.2	3.411	A
Fleet	24	6	158	909	0.026	24	41	0.0	0.0	4.065	A
Site	15	4	166	666	0.023	15	15	0.0	0.0	5.530	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	92	23	46	1055	0.087	92	172	0.1	0.1	3.735	A
Bar S	236	59	2	1251	0.188	235	136	0.2	0.2	3.544	A
Fleet	29	7	189	894	0.032	29	49	0.0	0.0	4.160	A
Site	18	4	199	654	0.028	18	18	0.0	0.0	5.662	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	112	28	56	1048	0.107	112	210	0.1	0.1	3.846	A
Bar S	288	72	2	1251	0.231	288	166	0.2	0.3	3.740	A
Fleet	35	9	231	873	0.040	35	59	0.0	0.0	4.296	A
Site	22	6	244	637	0.035	22	22	0.0	0.0	5.853	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	112	28	56	1048	0.107	112	210	0.1	0.1	3.846	A
Bar S	288	72	2	1251	0.231	288	166	0.3	0.3	3.740	A
Fleet	35	9	231	873	0.040	35	59	0.0	0.0	4.297	A
Site	22	6	244	637	0.035	22	22	0.0	0.0	5.854	A

**08:15 - 08:30**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	92	23	46	1055	0.087	92	172	0.1	0.1	3.736	A
Bar S	236	59	2	1251	0.188	236	136	0.3	0.2	3.546	A
Fleet	29	7	189	894	0.032	29	49	0.0	0.0	4.163	A
Site	18	4	200	654	0.028	18	18	0.0	0.0	5.666	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	77	19	38	1060	0.072	77	144	0.1	0.1	3.659	A
Bar S	197	49	2	1251	0.158	197	114	0.2	0.2	3.418	A
Fleet	24	6	158	909	0.027	24	41	0.0	0.0	4.067	A
Site	15	4	167	666	0.023	15	15	0.0	0.0	5.535	A

# 2024, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.67	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	180	100.000
Bar S		ONE HOUR	✓	223	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	1	176	3	0
	Bar S	137	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	24	67	0
	Bar S	28	0	14	100
	Fleet	33	53	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.16	3.44	0.2	A	165	248
Bar S	0.18	3.27	0.2	A	205	307
Fleet	0.09	4.32	0.1	A	65	98
Site	0.04	5.86	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	136	34	69	1271	0.107	135	106	0.0	0.1	3.167	A
Bar S	168	42	3	1348	0.125	167	201	0.0	0.1	3.046	A
Fleet	53	13	116	937	0.057	53	55	0.0	0.1	4.070	A
Site	17	4	158	667	0.025	16	11	0.0	0.0	5.532	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	162	40	83	1260	0.128	162	127	0.1	0.1	3.276	A
Bar S	200	50	4	1348	0.149	200	241	0.1	0.2	3.136	A
Fleet	64	16	138	926	0.069	64	66	0.1	0.1	4.174	A
Site	20	5	190	655	0.030	20	13	0.0	0.0	5.665	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	198	50	101	1245	0.159	198	155	0.1	0.2	3.436	A
Bar S	246	61	4	1347	0.182	245	295	0.2	0.2	3.266	A
Fleet	78	20	169	911	0.086	78	80	0.1	0.1	4.323	A
Site	24	6	232	639	0.038	24	15	0.0	0.0	5.857	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	198	50	101	1245	0.159	198	155	0.2	0.2	3.436	A
Bar S	246	61	4	1347	0.182	246	295	0.2	0.2	3.266	A
Fleet	78	20	170	911	0.086	78	80	0.1	0.1	4.323	A
Site	24	6	232	639	0.038	24	15	0.0	0.0	5.857	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	162	40	83	1260	0.128	162	127	0.2	0.1	3.278	A
Bar S	200	50	4	1348	0.149	201	241	0.2	0.2	3.140	A
Fleet	64	16	139	926	0.069	64	66	0.1	0.1	4.175	A
Site	20	5	190	655	0.030	20	13	0.0	0.0	5.669	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	136	34	69	1271	0.107	136	106	0.1	0.1	3.173	A
Bar S	168	42	3	1348	0.125	168	202	0.2	0.1	3.052	A
Fleet	53	13	116	937	0.057	54	55	0.1	0.1	4.073	A
Site	17	4	159	667	0.025	17	11	0.0	0.0	5.535	A

# 2024 + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.95	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	102	100.000
Bar S		ONE HOUR	✓	262	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	100	2	0
	Bar S	190	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	51	100	0
	Bar S	28	0	50	100
	Fleet	0	55	0	0
	Site	0	100	0	0



## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.11	3.85	0.1	A	94	140
Bar S	0.23	3.74	0.3	A	240	361
Fleet	0.04	4.30	0.0	A	29	44
Site	0.03	5.85	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	77	19	38	1061	0.072	76	143	0.0	0.1	3.658	A
Bar S	197	49	1	1251	0.158	197	113	0.0	0.2	3.411	A
Fleet	24	6	158	909	0.026	24	41	0.0	0.0	4.065	A
Site	15	4	166	666	0.023	15	15	0.0	0.0	5.530	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	92	23	46	1055	0.087	92	172	0.1	0.1	3.735	A
Bar S	236	59	2	1251	0.188	235	136	0.2	0.2	3.544	A
Fleet	29	7	189	894	0.032	29	49	0.0	0.0	4.160	A
Site	18	4	199	654	0.028	18	18	0.0	0.0	5.662	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	112	28	56	1048	0.107	112	210	0.1	0.1	3.846	A
Bar S	288	72	2	1251	0.231	288	166	0.2	0.3	3.740	A
Fleet	35	9	231	873	0.040	35	59	0.0	0.0	4.296	A
Site	22	6	244	637	0.035	22	22	0.0	0.0	5.853	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	112	28	56	1048	0.107	112	210	0.1	0.1	3.846	A
Bar S	288	72	2	1251	0.231	288	166	0.3	0.3	3.740	A
Fleet	35	9	231	873	0.040	35	59	0.0	0.0	4.297	A
Site	22	6	244	637	0.035	22	22	0.0	0.0	5.854	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	92	23	46	1055	0.087	92	172	0.1	0.1	3.736	A
Bar S	236	59	2	1251	0.188	236	136	0.3	0.2	3.546	A
Fleet	29	7	189	894	0.032	29	49	0.0	0.0	4.163	A
Site	18	4	200	654	0.028	18	18	0.0	0.0	5.666	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	77	19	38	1060	0.072	77	144	0.1	0.1	3.659	A
Bar S	197	49	2	1251	0.158	197	114	0.2	0.2	3.418	A
Fleet	24	6	158	909	0.027	24	41	0.0	0.0	4.067	A
Site	15	4	167	666	0.023	15	15	0.0	0.0	5.535	A

# 2024 + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.67	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	180	100.000
Bar S		ONE HOUR	✓	223	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	From	To			
		Bar E	Bar S	Fleet	Site
	Bar E	1	176	3	0
	Bar S	137	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

	From	To			
		Bar E	Bar S	Fleet	Site
	Bar E	0	24	67	0
	Bar S	28	0	14	100
	Fleet	33	53	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.16	3.44	0.2	A	165	248
Bar S	0.18	3.27	0.2	A	205	307
Fleet	0.09	4.32	0.1	A	65	98
Site	0.04	5.86	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	136	34	69	1271	0.107	135	106	0.0	0.1	3.167	A
Bar S	168	42	3	1348	0.125	167	201	0.0	0.1	3.046	A
Fleet	53	13	116	937	0.057	53	55	0.0	0.1	4.070	A
Site	17	4	158	667	0.025	16	11	0.0	0.0	5.532	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	162	40	83	1260	0.128	162	127	0.1	0.1	3.276	A
Bar S	200	50	4	1348	0.149	200	241	0.1	0.2	3.136	A
Fleet	64	16	138	926	0.069	64	66	0.1	0.1	4.174	A
Site	20	5	190	655	0.030	20	13	0.0	0.0	5.665	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	198	50	101	1245	0.159	198	155	0.1	0.2	3.436	A
Bar S	246	61	4	1347	0.182	245	295	0.2	0.2	3.266	A
Fleet	78	20	169	911	0.086	78	80	0.1	0.1	4.323	A
Site	24	6	232	639	0.038	24	15	0.0	0.0	5.857	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	198	50	101	1245	0.159	198	155	0.2	0.2	3.436	A
Bar S	246	61	4	1347	0.182	246	295	0.2	0.2	3.266	A
Fleet	78	20	170	911	0.086	78	80	0.1	0.1	4.323	A
Site	24	6	232	639	0.038	24	15	0.0	0.0	5.857	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	162	40	83	1260	0.128	162	127	0.2	0.1	3.278	A
Bar S	200	50	4	1348	0.149	201	241	0.2	0.2	3.140	A
Fleet	64	16	139	926	0.069	64	66	0.1	0.1	4.175	A
Site	20	5	190	655	0.030	20	13	0.0	0.0	5.669	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	136	34	69	1271	0.107	136	106	0.1	0.1	3.173	A
Bar S	168	42	3	1348	0.125	168	202	0.2	0.1	3.052	A
Fleet	53	13	116	937	0.057	54	55	0.1	0.1	4.073	A
Site	17	4	159	667	0.025	17	11	0.0	0.0	5.535	A

# 2024 + K3 Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	4.14	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	118	100.000
Bar S		ONE HOUR	✓	289	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	116	2	0
	Bar S	217	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	58	100	0
	Bar S	32	0	50	100
	Fleet	0	55	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.13	4.12	0.1	A	108	162
Bar S	0.26	3.94	0.3	A	265	398
Fleet	0.04	4.39	0.0	A	29	44
Site	0.04	5.98	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	89	22	38	1015	0.087	88	163	0.0	0.1	3.882	A
Bar S	218	54	1	1233	0.177	217	125	0.0	0.2	3.540	A
Fleet	24	6	178	898	0.027	24	40	0.0	0.0	4.121	A
Site	15	4	187	657	0.023	15	15	0.0	0.0	5.609	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	106	27	46	1010	0.105	106	196	0.1	0.1	3.980	A
Bar S	260	65	2	1232	0.211	260	150	0.2	0.3	3.700	A
Fleet	29	7	213	880	0.033	29	49	0.0	0.0	4.230	A
Site	18	4	224	643	0.028	18	18	0.0	0.0	5.762	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	130	32	56	1004	0.129	130	240	0.1	0.1	4.120	A
Bar S	318	80	2	1232	0.258	318	184	0.3	0.3	3.937	A
Fleet	35	9	261	856	0.041	35	59	0.0	0.0	4.388	A
Site	22	6	274	624	0.035	22	22	0.0	0.0	5.984	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	130	32	56	1004	0.129	130	240	0.1	0.1	4.120	A
Bar S	318	80	2	1232	0.258	318	184	0.3	0.3	3.939	A
Fleet	35	9	261	855	0.041	35	59	0.0	0.0	4.388	A
Site	22	6	274	623	0.035	22	22	0.0	0.0	5.985	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	106	27	46	1010	0.105	106	196	0.1	0.1	3.983	A
Bar S	260	65	2	1232	0.211	260	150	0.3	0.3	3.702	A
Fleet	29	7	213	880	0.033	29	49	0.0	0.0	4.233	A
Site	18	4	224	643	0.028	18	18	0.0	0.0	5.766	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	89	22	38	1015	0.088	89	164	0.1	0.1	3.886	A
Bar S	218	54	2	1233	0.177	218	126	0.3	0.2	3.549	A
Fleet	24	6	179	897	0.027	24	41	0.0	0.0	4.123	A
Site	15	4	188	656	0.023	15	15	0.0	0.0	5.615	A



# 2024 + K3 Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.82	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	206	100.000
Bar S		ONE HOUR	✓	238	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	1	202	3	0
	Bar S	152	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	28	67	0
	Bar S	35	0	14	100
	Fleet	33	53	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.19	3.67	0.2	A	189	284
Bar S	0.20	3.46	0.3	A	218	328
Fleet	0.09	4.39	0.1	A	65	98
Site	0.04	5.95	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	155	39	69	1233	0.126	155	117	0.0	0.1	3.336	A
Bar S	179	45	3	1303	0.138	179	220	0.0	0.2	3.201	A
Fleet	53	13	127	929	0.058	53	55	0.0	0.1	4.108	A
Site	17	4	169	661	0.025	16	11	0.0	0.0	5.587	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	185	46	83	1222	0.152	185	140	0.1	0.2	3.469	A
Bar S	214	53	4	1302	0.164	214	264	0.2	0.2	3.307	A
Fleet	64	16	152	916	0.070	64	66	0.1	0.1	4.222	A
Site	20	5	203	648	0.031	20	13	0.0	0.0	5.733	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	227	57	101	1208	0.188	227	172	0.2	0.2	3.667	A
Bar S	262	66	4	1302	0.201	262	323	0.2	0.3	3.461	A
Fleet	78	20	186	899	0.087	78	80	0.1	0.1	4.387	A
Site	24	6	249	630	0.038	24	15	0.0	0.0	5.946	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	227	57	101	1208	0.188	227	172	0.2	0.2	3.667	A
Bar S	262	66	4	1302	0.201	262	324	0.3	0.3	3.461	A
Fleet	78	20	186	899	0.087	78	80	0.1	0.1	4.387	A
Site	24	6	249	629	0.038	24	15	0.0	0.0	5.947	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	185	46	83	1222	0.152	185	140	0.2	0.2	3.471	A
Bar S	214	53	4	1302	0.164	214	265	0.3	0.2	3.308	A
Fleet	64	16	152	916	0.070	64	66	0.1	0.1	4.226	A
Site	20	5	203	647	0.031	20	13	0.0	0.0	5.735	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	155	39	69	1233	0.126	155	118	0.2	0.1	3.341	A
Bar S	179	45	3	1303	0.138	179	222	0.2	0.2	3.204	A
Fleet	53	13	127	929	0.058	54	55	0.1	0.1	4.113	A
Site	17	4	170	661	0.025	17	11	0.0	0.0	5.592	A

# 2024 + K3 and WKN Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	4.25	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	128	100.000
Bar S		ONE HOUR	✓	298	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	126	2	0
	Bar S	226	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	60	100	0
	Bar S	35	0	50	100
	Fleet	0	55	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.14	4.23	0.2	A	117	176
Bar S	0.27	4.06	0.4	A	273	410
Fleet	0.04	4.43	0.0	A	29	44
Site	0.04	6.04	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	96	24	38	1003	0.096	96	170	0.0	0.1	3.966	A
Bar S	224	56	1	1215	0.185	223	133	0.0	0.2	3.627	A
Fleet	24	6	184	892	0.027	24	40	0.0	0.0	4.145	A
Site	15	4	193	653	0.023	15	15	0.0	0.0	5.644	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	115	29	46	998	0.115	115	204	0.1	0.1	4.075	A
Bar S	268	67	2	1215	0.221	268	159	0.2	0.3	3.801	A
Fleet	29	7	221	874	0.033	29	49	0.0	0.0	4.260	A
Site	18	4	232	638	0.028	18	18	0.0	0.0	5.806	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	141	35	56	992	0.142	141	250	0.1	0.2	4.231	A
Bar S	328	82	2	1214	0.270	328	195	0.3	0.4	4.057	A
Fleet	35	9	271	848	0.042	35	59	0.0	0.0	4.428	A
Site	22	6	284	618	0.036	22	22	0.0	0.0	6.042	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	141	35	56	992	0.142	141	250	0.2	0.2	4.231	A
Bar S	328	82	2	1214	0.270	328	195	0.4	0.4	4.061	A
Fleet	35	9	271	848	0.042	35	59	0.0	0.0	4.429	A
Site	22	6	284	618	0.036	22	22	0.0	0.0	6.043	A

**08:15 - 08:30**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	115	29	46	998	0.115	115	204	0.2	0.1	4.076	A
Bar S	268	67	2	1215	0.221	268	159	0.4	0.3	3.803	A
Fleet	29	7	221	873	0.033	29	49	0.0	0.0	4.262	A
Site	18	4	232	638	0.028	18	18	0.0	0.0	5.810	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	96	24	38	1003	0.096	96	171	0.1	0.1	3.972	A
Bar S	224	56	2	1215	0.185	225	133	0.3	0.2	3.637	A
Fleet	24	6	185	892	0.027	24	41	0.0	0.0	4.148	A
Site	15	4	194	652	0.023	15	15	0.0	0.0	5.648	A

# 2024 + K3 and WKN Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.89	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	226	100.000
Bar S		ONE HOUR	✓	243	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	1	222	3	0
	Bar S	157	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	29	67	0
	Bar S	37	0	14	100
	Fleet	33	53	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.21	3.79	0.3	A	207	311
Bar S	0.21	3.52	0.3	A	223	334
Fleet	0.09	4.41	0.1	A	65	98
Site	0.04	5.98	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	170	43	69	1224	0.139	170	121	0.0	0.2	3.412	A
Bar S	183	46	3	1290	0.142	182	235	0.0	0.2	3.249	A
Fleet	53	13	131	926	0.058	53	55	0.0	0.1	4.121	A
Site	17	4	173	659	0.025	16	11	0.0	0.0	5.605	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	203	51	83	1213	0.167	203	145	0.2	0.2	3.562	A
Bar S	218	55	4	1289	0.169	218	282	0.2	0.2	3.361	A
Fleet	64	16	156	913	0.070	64	66	0.1	0.1	4.239	A
Site	20	5	208	645	0.031	20	13	0.0	0.0	5.756	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	249	62	101	1199	0.207	249	177	0.2	0.3	3.786	A
Bar S	268	67	4	1289	0.208	267	345	0.2	0.3	3.525	A
Fleet	78	20	191	895	0.087	78	80	0.1	0.1	4.409	A
Site	24	6	254	626	0.039	24	15	0.0	0.0	5.977	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	249	62	101	1199	0.207	249	177	0.3	0.3	3.786	A
Bar S	268	67	4	1289	0.208	268	346	0.3	0.3	3.525	A
Fleet	78	20	192	895	0.087	78	80	0.1	0.1	4.409	A
Site	24	6	254	626	0.039	24	15	0.0	0.0	5.978	A



17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	203	51	83	1213	0.167	203	145	0.3	0.2	3.564	A
Bar S	218	55	4	1289	0.169	219	283	0.3	0.2	3.365	A
Fleet	64	16	157	913	0.070	64	66	0.1	0.1	4.240	A
Site	20	5	208	645	0.031	20	13	0.0	0.0	5.761	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	170	43	69	1224	0.139	170	121	0.2	0.2	3.420	A
Bar S	183	46	3	1290	0.142	183	237	0.2	0.2	3.255	A
Fleet	53	13	131	926	0.058	54	55	0.1	0.1	4.125	A
Site	17	4	174	658	0.025	17	11	0.0	0.0	5.610	A

# 2024 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	4.14	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	118	100.000
Bar S		ONE HOUR	✓	289	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	116	2	0
	Bar S	217	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

From	To				
	Bar E	Bar S	Fleet	Site	
Bar E	0	58	100	0	
Bar S	32	0	50	100	
Fleet	0	55	0	0	
Site	0	100	0	0	

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.13	4.12	0.1	A	108	162
Bar S	0.26	3.94	0.3	A	265	398
Fleet	0.04	4.39	0.0	A	29	44
Site	0.04	5.98	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	89	22	38	1015	0.087	88	163	0.0	0.1	3.882	A
Bar S	218	54	1	1233	0.177	217	125	0.0	0.2	3.540	A
Fleet	24	6	178	898	0.027	24	40	0.0	0.0	4.121	A
Site	15	4	187	657	0.023	15	15	0.0	0.0	5.609	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	106	27	46	1010	0.105	106	196	0.1	0.1	3.980	A
Bar S	260	65	2	1232	0.211	260	150	0.2	0.3	3.700	A
Fleet	29	7	213	880	0.033	29	49	0.0	0.0	4.230	A
Site	18	4	224	643	0.028	18	18	0.0	0.0	5.762	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	130	32	56	1004	0.129	130	240	0.1	0.1	4.120	A
Bar S	318	80	2	1232	0.258	318	184	0.3	0.3	3.937	A
Fleet	35	9	261	856	0.041	35	59	0.0	0.0	4.388	A
Site	22	6	274	624	0.035	22	22	0.0	0.0	5.984	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	130	32	56	1004	0.129	130	240	0.1	0.1	4.120	A
Bar S	318	80	2	1232	0.258	318	184	0.3	0.3	3.939	A
Fleet	35	9	261	855	0.041	35	59	0.0	0.0	4.388	A
Site	22	6	274	623	0.035	22	22	0.0	0.0	5.985	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	106	27	46	1010	0.105	106	196	0.1	0.1	3.983	A
Bar S	260	65	2	1232	0.211	260	150	0.3	0.3	3.702	A
Fleet	29	7	213	880	0.033	29	49	0.0	0.0	4.233	A
Site	18	4	224	643	0.028	18	18	0.0	0.0	5.766	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	89	22	38	1015	0.088	89	164	0.1	0.1	3.886	A
Bar S	218	54	2	1233	0.177	218	126	0.3	0.2	3.549	A
Fleet	24	6	179	897	0.027	24	41	0.0	0.0	4.123	A
Site	15	4	188	656	0.023	15	15	0.0	0.0	5.615	A

# 2024 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.82	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	206	100.000
Bar S		ONE HOUR	✓	238	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	1	202	3	0
	Bar S	152	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

From	To			
	Bar E	Bar S	Fleet	Site
Bar E	0	28	67	0
Bar S	35	0	14	100
Fleet	33	53	0	0
Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.19	3.67	0.2	A	189	284
Bar S	0.20	3.46	0.3	A	218	328
Fleet	0.09	4.39	0.1	A	65	98
Site	0.04	5.95	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	155	39	69	1233	0.126	155	117	0.0	0.1	3.336	A
Bar S	179	45	3	1303	0.138	179	220	0.0	0.2	3.201	A
Fleet	53	13	127	929	0.058	53	55	0.0	0.1	4.108	A
Site	17	4	169	661	0.025	16	11	0.0	0.0	5.587	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	185	46	83	1222	0.152	185	140	0.1	0.2	3.469	A
Bar S	214	53	4	1302	0.164	214	264	0.2	0.2	3.307	A
Fleet	64	16	152	916	0.070	64	66	0.1	0.1	4.222	A
Site	20	5	203	648	0.031	20	13	0.0	0.0	5.733	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	227	57	101	1208	0.188	227	172	0.2	0.2	3.667	A
Bar S	262	66	4	1302	0.201	262	323	0.2	0.3	3.461	A
Fleet	78	20	186	899	0.087	78	80	0.1	0.1	4.387	A
Site	24	6	249	630	0.038	24	15	0.0	0.0	5.946	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	227	57	101	1208	0.188	227	172	0.2	0.2	3.667	A
Bar S	262	66	4	1302	0.201	262	324	0.3	0.3	3.461	A
Fleet	78	20	186	899	0.087	78	80	0.1	0.1	4.387	A
Site	24	6	249	629	0.038	24	15	0.0	0.0	5.947	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	185	46	83	1222	0.152	185	140	0.2	0.2	3.471	A
Bar S	214	53	4	1302	0.164	214	265	0.3	0.2	3.308	A
Fleet	64	16	152	916	0.070	64	66	0.1	0.1	4.226	A
Site	20	5	203	647	0.031	20	13	0.0	0.0	5.735	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	155	39	69	1233	0.126	155	118	0.2	0.1	3.341	A
Bar S	179	45	3	1303	0.138	179	222	0.2	0.2	3.204	A
Fleet	53	13	127	929	0.058	54	55	0.1	0.1	4.113	A
Site	17	4	170	661	0.025	17	11	0.0	0.0	5.592	A

# 2024 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	4.25	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	128	100.000
Bar S		ONE HOUR	✓	298	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	126	2	0
	Bar S	226	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix



### Heavy Vehicle Percentages

From	To			
	Bar E	Bar S	Fleet	Site
Bar E	0	60	100	0
Bar S	35	0	50	100
Fleet	0	55	0	0
Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.14	4.23	0.2	A	117	176
Bar S	0.27	4.06	0.4	A	273	410
Fleet	0.04	4.43	0.0	A	29	44
Site	0.04	6.04	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	96	24	38	1003	0.096	96	170	0.0	0.1	3.966	A
Bar S	224	56	1	1215	0.185	223	133	0.0	0.2	3.627	A
Fleet	24	6	184	892	0.027	24	40	0.0	0.0	4.145	A
Site	15	4	193	653	0.023	15	15	0.0	0.0	5.644	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	115	29	46	998	0.115	115	204	0.1	0.1	4.075	A
Bar S	268	67	2	1215	0.221	268	159	0.2	0.3	3.801	A
Fleet	29	7	221	874	0.033	29	49	0.0	0.0	4.260	A
Site	18	4	232	638	0.028	18	18	0.0	0.0	5.806	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	141	35	56	992	0.142	141	250	0.1	0.2	4.231	A
Bar S	328	82	2	1214	0.270	328	195	0.3	0.4	4.057	A
Fleet	35	9	271	848	0.042	35	59	0.0	0.0	4.428	A
Site	22	6	284	618	0.036	22	22	0.0	0.0	6.042	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	141	35	56	992	0.142	141	250	0.2	0.2	4.231	A
Bar S	328	82	2	1214	0.270	328	195	0.4	0.4	4.061	A
Fleet	35	9	271	848	0.042	35	59	0.0	0.0	4.429	A
Site	22	6	284	618	0.036	22	22	0.0	0.0	6.043	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	115	29	46	998	0.115	115	204	0.2	0.1	4.076	A
Bar S	268	67	2	1215	0.221	268	159	0.4	0.3	3.803	A
Fleet	29	7	221	873	0.033	29	49	0.0	0.0	4.262	A
Site	18	4	232	638	0.028	18	18	0.0	0.0	5.810	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	96	24	38	1003	0.096	96	171	0.1	0.1	3.972	A
Bar S	224	56	2	1215	0.185	225	133	0.3	0.2	3.637	A
Fleet	24	6	185	892	0.027	24	41	0.0	0.0	4.148	A
Site	15	4	194	652	0.023	15	15	0.0	0.0	5.648	A

# 2024 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.89	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	225	100.000
Bar S		ONE HOUR	✓	243	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	222	3	0
	Bar S	157	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

From	To			
	Bar E	Bar S	Fleet	Site
Bar E	0	29	67	0
Bar S	37	0	14	100
Fleet	33	53	0	0
Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.21	3.79	0.3	A	206	310
Bar S	0.21	3.52	0.3	A	223	334
Fleet	0.09	4.41	0.1	A	65	98
Site	0.04	5.97	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	169	42	69	1223	0.139	169	120	0.0	0.2	3.414	A
Bar S	183	46	2	1290	0.142	182	235	0.0	0.2	3.248	A
Fleet	53	13	130	927	0.058	53	55	0.0	0.1	4.120	A
Site	17	4	172	659	0.025	16	11	0.0	0.0	5.603	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	202	51	83	1212	0.167	202	144	0.2	0.2	3.563	A
Bar S	218	55	3	1290	0.169	218	282	0.2	0.2	3.360	A
Fleet	64	16	155	913	0.070	64	66	0.1	0.1	4.237	A
Site	20	5	207	645	0.031	20	13	0.0	0.0	5.754	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	248	62	101	1198	0.207	247	176	0.2	0.3	3.786	A
Bar S	268	67	3	1289	0.208	267	345	0.2	0.3	3.523	A
Fleet	78	20	190	895	0.087	78	80	0.1	0.1	4.406	A
Site	24	6	253	627	0.039	24	15	0.0	0.0	5.974	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	248	62	101	1198	0.207	248	176	0.3	0.3	3.787	A
Bar S	268	67	3	1289	0.208	268	346	0.3	0.3	3.523	A
Fleet	78	20	190	895	0.087	78	80	0.1	0.1	4.407	A
Site	24	6	253	627	0.039	24	15	0.0	0.0	5.975	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	202	51	83	1212	0.167	203	144	0.3	0.2	3.568	A
Bar S	218	55	3	1290	0.169	219	283	0.3	0.2	3.361	A
Fleet	64	16	156	913	0.070	64	66	0.1	0.1	4.240	A
Site	20	5	207	645	0.031	20	13	0.0	0.0	5.758	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	169	42	69	1222	0.139	170	121	0.2	0.2	3.419	A
Bar S	183	46	2	1290	0.142	183	237	0.2	0.2	3.252	A
Fleet	53	13	130	926	0.058	54	55	0.1	0.1	4.125	A
Site	17	4	173	659	0.025	17	11	0.0	0.0	5.606	A

# 2031, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.95	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	102	100.000
Bar S		ONE HOUR	✓	262	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	100	2	0
	Bar S	190	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	51	100	0
	Bar S	28	0	50	100
	Fleet	0	55	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.11	3.85	0.1	A	94	140
Bar S	0.23	3.74	0.3	A	240	361
Fleet	0.04	4.30	0.0	A	29	44
Site	0.03	5.85	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	77	19	38	1061	0.072	76	143	0.0	0.1	3.658	A
Bar S	197	49	1	1251	0.158	197	113	0.0	0.2	3.411	A
Fleet	24	6	158	909	0.026	24	41	0.0	0.0	4.065	A
Site	15	4	166	666	0.023	15	15	0.0	0.0	5.530	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	92	23	46	1055	0.087	92	172	0.1	0.1	3.735	A
Bar S	236	59	2	1251	0.188	235	136	0.2	0.2	3.544	A
Fleet	29	7	189	894	0.032	29	49	0.0	0.0	4.160	A
Site	18	4	199	654	0.028	18	18	0.0	0.0	5.662	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	112	28	56	1048	0.107	112	210	0.1	0.1	3.846	A
Bar S	288	72	2	1251	0.231	288	166	0.2	0.3	3.740	A
Fleet	35	9	231	873	0.040	35	59	0.0	0.0	4.296	A
Site	22	6	244	637	0.035	22	22	0.0	0.0	5.853	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	112	28	56	1048	0.107	112	210	0.1	0.1	3.846	A
Bar S	288	72	2	1251	0.231	288	166	0.3	0.3	3.740	A
Fleet	35	9	231	873	0.040	35	59	0.0	0.0	4.297	A
Site	22	6	244	637	0.035	22	22	0.0	0.0	5.854	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	92	23	46	1055	0.087	92	172	0.1	0.1	3.736	A
Bar S	236	59	2	1251	0.188	236	136	0.3	0.2	3.546	A
Fleet	29	7	189	894	0.032	29	49	0.0	0.0	4.163	A
Site	18	4	200	654	0.028	18	18	0.0	0.0	5.666	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	77	19	38	1060	0.072	77	144	0.1	0.1	3.659	A
Bar S	197	49	2	1251	0.158	197	114	0.2	0.2	3.418	A
Fleet	24	6	158	909	0.027	24	41	0.0	0.0	4.067	A
Site	15	4	167	666	0.023	15	15	0.0	0.0	5.535	A



# 2031, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.67	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	180	100.000
Bar S		ONE HOUR	✓	223	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	1	176	3	0
	Bar S	137	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	24	67	0
	Bar S	28	0	14	100
	Fleet	33	53	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.16	3.44	0.2	A	165	248
Bar S	0.18	3.27	0.2	A	205	307
Fleet	0.09	4.32	0.1	A	65	98
Site	0.04	5.86	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	136	34	69	1271	0.107	135	106	0.0	0.1	3.167	A
Bar S	168	42	3	1348	0.125	167	201	0.0	0.1	3.046	A
Fleet	53	13	116	937	0.057	53	55	0.0	0.1	4.070	A
Site	17	4	158	667	0.025	16	11	0.0	0.0	5.532	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	162	40	83	1260	0.128	162	127	0.1	0.1	3.276	A
Bar S	200	50	4	1348	0.149	200	241	0.1	0.2	3.136	A
Fleet	64	16	138	926	0.069	64	66	0.1	0.1	4.174	A
Site	20	5	190	655	0.030	20	13	0.0	0.0	5.665	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	198	50	101	1245	0.159	198	155	0.1	0.2	3.436	A
Bar S	246	61	4	1347	0.182	245	295	0.2	0.2	3.266	A
Fleet	78	20	169	911	0.086	78	80	0.1	0.1	4.323	A
Site	24	6	232	639	0.038	24	15	0.0	0.0	5.857	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	198	50	101	1245	0.159	198	155	0.2	0.2	3.436	A
Bar S	246	61	4	1347	0.182	246	295	0.2	0.2	3.266	A
Fleet	78	20	170	911	0.086	78	80	0.1	0.1	4.323	A
Site	24	6	232	639	0.038	24	15	0.0	0.0	5.857	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	162	40	83	1260	0.128	162	127	0.2	0.1	3.278	A
Bar S	200	50	4	1348	0.149	201	241	0.2	0.2	3.140	A
Fleet	64	16	139	926	0.069	64	66	0.1	0.1	4.175	A
Site	20	5	190	655	0.030	20	13	0.0	0.0	5.669	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	136	34	69	1271	0.107	136	106	0.1	0.1	3.173	A
Bar S	168	42	3	1348	0.125	168	202	0.2	0.1	3.052	A
Fleet	53	13	116	937	0.057	54	55	0.1	0.1	4.073	A
Site	17	4	159	667	0.025	17	11	0.0	0.0	5.535	A

# 2031 + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.95	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D21	2031 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	102	100.000
Bar S		ONE HOUR	✓	262	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	100	2	0
	Bar S	190	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	51	100	0
	Bar S	28	0	50	100
	Fleet	0	55	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.11	3.85	0.1	A	94	140
Bar S	0.23	3.74	0.3	A	240	361
Fleet	0.04	4.30	0.0	A	29	44
Site	0.03	5.85	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	77	19	38	1061	0.072	76	143	0.0	0.1	3.658	A
Bar S	197	49	1	1251	0.158	197	113	0.0	0.2	3.411	A
Fleet	24	6	158	909	0.026	24	41	0.0	0.0	4.065	A
Site	15	4	166	666	0.023	15	15	0.0	0.0	5.530	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	92	23	46	1055	0.087	92	172	0.1	0.1	3.735	A
Bar S	236	59	2	1251	0.188	235	136	0.2	0.2	3.544	A
Fleet	29	7	189	894	0.032	29	49	0.0	0.0	4.160	A
Site	18	4	199	654	0.028	18	18	0.0	0.0	5.662	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	112	28	56	1048	0.107	112	210	0.1	0.1	3.846	A
Bar S	288	72	2	1251	0.231	288	166	0.2	0.3	3.740	A
Fleet	35	9	231	873	0.040	35	59	0.0	0.0	4.296	A
Site	22	6	244	637	0.035	22	22	0.0	0.0	5.853	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	112	28	56	1048	0.107	112	210	0.1	0.1	3.846	A
Bar S	288	72	2	1251	0.231	288	166	0.3	0.3	3.740	A
Fleet	35	9	231	873	0.040	35	59	0.0	0.0	4.297	A
Site	22	6	244	637	0.035	22	22	0.0	0.0	5.854	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	92	23	46	1055	0.087	92	172	0.1	0.1	3.736	A
Bar S	236	59	2	1251	0.188	236	136	0.3	0.2	3.546	A
Fleet	29	7	189	894	0.032	29	49	0.0	0.0	4.163	A
Site	18	4	200	654	0.028	18	18	0.0	0.0	5.666	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	77	19	38	1060	0.072	77	144	0.1	0.1	3.659	A
Bar S	197	49	2	1251	0.158	197	114	0.2	0.2	3.418	A
Fleet	24	6	158	909	0.027	24	41	0.0	0.0	4.067	A
Site	15	4	167	666	0.023	15	15	0.0	0.0	5.535	A

# 2031 + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.67	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D22	2031 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	180	100.000
Bar S		ONE HOUR	✓	223	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	1	176	3	0
	Bar S	137	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	24	67	0
	Bar S	28	0	14	100
	Fleet	33	53	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.16	3.44	0.2	A	165	248
Bar S	0.18	3.27	0.2	A	205	307
Fleet	0.09	4.32	0.1	A	65	98
Site	0.04	5.86	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	136	34	69	1271	0.107	135	106	0.0	0.1	3.167	A
Bar S	168	42	3	1348	0.125	167	201	0.0	0.1	3.046	A
Fleet	53	13	116	937	0.057	53	55	0.0	0.1	4.070	A
Site	17	4	158	667	0.025	16	11	0.0	0.0	5.532	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	162	40	83	1260	0.128	162	127	0.1	0.1	3.276	A
Bar S	200	50	4	1348	0.149	200	241	0.1	0.2	3.136	A
Fleet	64	16	138	926	0.069	64	66	0.1	0.1	4.174	A
Site	20	5	190	655	0.030	20	13	0.0	0.0	5.665	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	198	50	101	1245	0.159	198	155	0.1	0.2	3.436	A
Bar S	246	61	4	1347	0.182	245	295	0.2	0.2	3.266	A
Fleet	78	20	169	911	0.086	78	80	0.1	0.1	4.323	A
Site	24	6	232	639	0.038	24	15	0.0	0.0	5.857	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	198	50	101	1245	0.159	198	155	0.2	0.2	3.436	A
Bar S	246	61	4	1347	0.182	246	295	0.2	0.2	3.266	A
Fleet	78	20	170	911	0.086	78	80	0.1	0.1	4.323	A
Site	24	6	232	639	0.038	24	15	0.0	0.0	5.857	A



17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	162	40	83	1260	0.128	162	127	0.2	0.1	3.278	A
Bar S	200	50	4	1348	0.149	201	241	0.2	0.2	3.140	A
Fleet	64	16	139	926	0.069	64	66	0.1	0.1	4.175	A
Site	20	5	190	655	0.030	20	13	0.0	0.0	5.669	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	136	34	69	1271	0.107	136	106	0.1	0.1	3.173	A
Bar S	168	42	3	1348	0.125	168	202	0.2	0.1	3.052	A
Fleet	53	13	116	937	0.057	54	55	0.1	0.1	4.073	A
Site	17	4	159	667	0.025	17	11	0.0	0.0	5.535	A

# 2031 + K3 Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	4.14	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D23	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	118	100.000
Bar S		ONE HOUR	✓	289	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	116	2	0
	Bar S	217	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	58	100	0
	Bar S	32	0	50	100
	Fleet	0	55	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.13	4.12	0.1	A	108	162
Bar S	0.26	3.94	0.3	A	265	398
Fleet	0.04	4.39	0.0	A	29	44
Site	0.04	5.98	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	89	22	38	1015	0.087	88	163	0.0	0.1	3.882	A
Bar S	218	54	1	1233	0.177	217	125	0.0	0.2	3.540	A
Fleet	24	6	178	898	0.027	24	40	0.0	0.0	4.121	A
Site	15	4	187	657	0.023	15	15	0.0	0.0	5.609	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	106	27	46	1010	0.105	106	196	0.1	0.1	3.980	A
Bar S	260	65	2	1232	0.211	260	150	0.2	0.3	3.700	A
Fleet	29	7	213	880	0.033	29	49	0.0	0.0	4.230	A
Site	18	4	224	643	0.028	18	18	0.0	0.0	5.762	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	130	32	56	1004	0.129	130	240	0.1	0.1	4.120	A
Bar S	318	80	2	1232	0.258	318	184	0.3	0.3	3.937	A
Fleet	35	9	261	856	0.041	35	59	0.0	0.0	4.388	A
Site	22	6	274	624	0.035	22	22	0.0	0.0	5.984	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	130	32	56	1004	0.129	130	240	0.1	0.1	4.120	A
Bar S	318	80	2	1232	0.258	318	184	0.3	0.3	3.939	A
Fleet	35	9	261	855	0.041	35	59	0.0	0.0	4.388	A
Site	22	6	274	623	0.035	22	22	0.0	0.0	5.985	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	106	27	46	1010	0.105	106	196	0.1	0.1	3.983	A
Bar S	260	65	2	1232	0.211	260	150	0.3	0.3	3.702	A
Fleet	29	7	213	880	0.033	29	49	0.0	0.0	4.233	A
Site	18	4	224	643	0.028	18	18	0.0	0.0	5.766	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	89	22	38	1015	0.088	89	164	0.1	0.1	3.886	A
Bar S	218	54	2	1233	0.177	218	126	0.3	0.2	3.549	A
Fleet	24	6	179	897	0.027	24	41	0.0	0.0	4.123	A
Site	15	4	188	656	0.023	15	15	0.0	0.0	5.615	A

# 2031 + K3 Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.82	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D24	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	206	100.000
Bar S		ONE HOUR	✓	238	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	1	202	3	0
	Bar S	152	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	28	67	0
	Bar S	35	0	14	100
	Fleet	33	53	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.19	3.67	0.2	A	189	284
Bar S	0.20	3.46	0.3	A	218	328
Fleet	0.09	4.39	0.1	A	65	98
Site	0.04	5.95	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	155	39	69	1233	0.126	155	117	0.0	0.1	3.336	A
Bar S	179	45	3	1303	0.138	179	220	0.0	0.2	3.201	A
Fleet	53	13	127	929	0.058	53	55	0.0	0.1	4.108	A
Site	17	4	169	661	0.025	16	11	0.0	0.0	5.587	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	185	46	83	1222	0.152	185	140	0.1	0.2	3.469	A
Bar S	214	53	4	1302	0.164	214	264	0.2	0.2	3.307	A
Fleet	64	16	152	916	0.070	64	66	0.1	0.1	4.222	A
Site	20	5	203	648	0.031	20	13	0.0	0.0	5.733	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	227	57	101	1208	0.188	227	172	0.2	0.2	3.667	A
Bar S	262	66	4	1302	0.201	262	323	0.2	0.3	3.461	A
Fleet	78	20	186	899	0.087	78	80	0.1	0.1	4.387	A
Site	24	6	249	630	0.038	24	15	0.0	0.0	5.946	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	227	57	101	1208	0.188	227	172	0.2	0.2	3.667	A
Bar S	262	66	4	1302	0.201	262	324	0.3	0.3	3.461	A
Fleet	78	20	186	899	0.087	78	80	0.1	0.1	4.387	A
Site	24	6	249	629	0.038	24	15	0.0	0.0	5.947	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	185	46	83	1222	0.152	185	140	0.2	0.2	3.471	A
Bar S	214	53	4	1302	0.164	214	265	0.3	0.2	3.308	A
Fleet	64	16	152	916	0.070	64	66	0.1	0.1	4.226	A
Site	20	5	203	647	0.031	20	13	0.0	0.0	5.735	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	155	39	69	1233	0.126	155	118	0.2	0.1	3.341	A
Bar S	179	45	3	1303	0.138	179	222	0.2	0.2	3.204	A
Fleet	53	13	127	929	0.058	54	55	0.1	0.1	4.113	A
Site	17	4	170	661	0.025	17	11	0.0	0.0	5.592	A

# 2031 + K3 and WKN Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	4.25	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D27	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	128	100.000
Bar S		ONE HOUR	✓	298	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	126	2	0
	Bar S	226	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	60	100	0
	Bar S	35	0	50	100
	Fleet	0	55	0	0
	Site	0	100	0	0



## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.14	4.23	0.2	A	117	176
Bar S	0.27	4.06	0.4	A	273	410
Fleet	0.04	4.43	0.0	A	29	44
Site	0.04	6.04	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	96	24	38	1003	0.096	96	170	0.0	0.1	3.966	A
Bar S	224	56	1	1215	0.185	223	133	0.0	0.2	3.627	A
Fleet	24	6	184	892	0.027	24	40	0.0	0.0	4.145	A
Site	15	4	193	653	0.023	15	15	0.0	0.0	5.644	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	115	29	46	998	0.115	115	204	0.1	0.1	4.075	A
Bar S	268	67	2	1215	0.221	268	159	0.2	0.3	3.801	A
Fleet	29	7	221	874	0.033	29	49	0.0	0.0	4.260	A
Site	18	4	232	638	0.028	18	18	0.0	0.0	5.806	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	141	35	56	992	0.142	141	250	0.1	0.2	4.231	A
Bar S	328	82	2	1214	0.270	328	195	0.3	0.4	4.057	A
Fleet	35	9	271	848	0.042	35	59	0.0	0.0	4.428	A
Site	22	6	284	618	0.036	22	22	0.0	0.0	6.042	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	141	35	56	992	0.142	141	250	0.2	0.2	4.231	A
Bar S	328	82	2	1214	0.270	328	195	0.4	0.4	4.061	A
Fleet	35	9	271	848	0.042	35	59	0.0	0.0	4.429	A
Site	22	6	284	618	0.036	22	22	0.0	0.0	6.043	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	115	29	46	998	0.115	115	204	0.2	0.1	4.076	A
Bar S	268	67	2	1215	0.221	268	159	0.4	0.3	3.803	A
Fleet	29	7	221	873	0.033	29	49	0.0	0.0	4.262	A
Site	18	4	232	638	0.028	18	18	0.0	0.0	5.810	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	96	24	38	1003	0.096	96	171	0.1	0.1	3.972	A
Bar S	224	56	2	1215	0.185	225	133	0.3	0.2	3.637	A
Fleet	24	6	185	892	0.027	24	41	0.0	0.0	4.148	A
Site	15	4	194	652	0.023	15	15	0.0	0.0	5.648	A

# 2031 + K3 and WKN Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.89	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D28	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	226	100.000
Bar S		ONE HOUR	✓	243	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From	To				
	Bar E	Bar S	Fleet	Site	
Bar E	1	222	3	0	
Bar S	157	2	70	14	
Fleet	3	68	0	0	
Site	0	22	0	0	

## Vehicle Mix

### Heavy Vehicle Percentages

From	To				
	Bar E	Bar S	Fleet	Site	
Bar E	0	29	67	0	
Bar S	37	0	14	100	
Fleet	33	53	0	0	
Site	0	100	0	0	

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.21	3.79	0.3	A	207	311
Bar S	0.21	3.52	0.3	A	223	334
Fleet	0.09	4.41	0.1	A	65	98
Site	0.04	5.98	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	170	43	69	1224	0.139	170	121	0.0	0.2	3.412	A
Bar S	183	46	3	1290	0.142	182	235	0.0	0.2	3.249	A
Fleet	53	13	131	926	0.058	53	55	0.0	0.1	4.121	A
Site	17	4	173	659	0.025	16	11	0.0	0.0	5.605	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	203	51	83	1213	0.167	203	145	0.2	0.2	3.562	A
Bar S	218	55	4	1289	0.169	218	282	0.2	0.2	3.361	A
Fleet	64	16	156	913	0.070	64	66	0.1	0.1	4.239	A
Site	20	5	208	645	0.031	20	13	0.0	0.0	5.756	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	249	62	101	1199	0.207	249	177	0.2	0.3	3.786	A
Bar S	268	67	4	1289	0.208	267	345	0.2	0.3	3.525	A
Fleet	78	20	191	895	0.087	78	80	0.1	0.1	4.409	A
Site	24	6	254	626	0.039	24	15	0.0	0.0	5.977	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	249	62	101	1199	0.207	249	177	0.3	0.3	3.786	A
Bar S	268	67	4	1289	0.208	268	346	0.3	0.3	3.525	A
Fleet	78	20	192	895	0.087	78	80	0.1	0.1	4.409	A
Site	24	6	254	626	0.039	24	15	0.0	0.0	5.978	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	203	51	83	1213	0.167	203	145	0.3	0.2	3.564	A
Bar S	218	55	4	1289	0.169	219	283	0.3	0.2	3.365	A
Fleet	64	16	157	913	0.070	64	66	0.1	0.1	4.240	A
Site	20	5	208	645	0.031	20	13	0.0	0.0	5.761	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	170	43	69	1224	0.139	170	121	0.2	0.2	3.420	A
Bar S	183	46	3	1290	0.142	183	237	0.2	0.2	3.255	A
Fleet	53	13	131	926	0.058	54	55	0.1	0.1	4.125	A
Site	17	4	174	658	0.025	17	11	0.0	0.0	5.610	A

# 2031 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	4.14	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D29	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	118	100.000
Bar S		ONE HOUR	✓	289	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	116	2	0
	Bar S	217	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

From	To				
	Bar E	Bar S	Fleet	Site	
Bar E	0	58	100	0	
Bar S	32	0	50	100	
Fleet	0	55	0	0	
Site	0	100	0	0	

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.13	4.12	0.1	A	108	162
Bar S	0.26	3.94	0.3	A	265	398
Fleet	0.04	4.39	0.0	A	29	44
Site	0.04	5.98	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	89	22	38	1015	0.087	88	163	0.0	0.1	3.882	A
Bar S	218	54	1	1233	0.177	217	125	0.0	0.2	3.540	A
Fleet	24	6	178	898	0.027	24	40	0.0	0.0	4.121	A
Site	15	4	187	657	0.023	15	15	0.0	0.0	5.609	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	106	27	46	1010	0.105	106	196	0.1	0.1	3.980	A
Bar S	260	65	2	1232	0.211	260	150	0.2	0.3	3.700	A
Fleet	29	7	213	880	0.033	29	49	0.0	0.0	4.230	A
Site	18	4	224	643	0.028	18	18	0.0	0.0	5.762	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	130	32	56	1004	0.129	130	240	0.1	0.1	4.120	A
Bar S	318	80	2	1232	0.258	318	184	0.3	0.3	3.937	A
Fleet	35	9	261	856	0.041	35	59	0.0	0.0	4.388	A
Site	22	6	274	624	0.035	22	22	0.0	0.0	5.984	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	130	32	56	1004	0.129	130	240	0.1	0.1	4.120	A
Bar S	318	80	2	1232	0.258	318	184	0.3	0.3	3.939	A
Fleet	35	9	261	855	0.041	35	59	0.0	0.0	4.388	A
Site	22	6	274	623	0.035	22	22	0.0	0.0	5.985	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	106	27	46	1010	0.105	106	196	0.1	0.1	3.983	A
Bar S	260	65	2	1232	0.211	260	150	0.3	0.3	3.702	A
Fleet	29	7	213	880	0.033	29	49	0.0	0.0	4.233	A
Site	18	4	224	643	0.028	18	18	0.0	0.0	5.766	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	89	22	38	1015	0.088	89	164	0.1	0.1	3.886	A
Bar S	218	54	2	1233	0.177	218	126	0.3	0.2	3.549	A
Fleet	24	6	179	897	0.027	24	41	0.0	0.0	4.123	A
Site	15	4	188	656	0.023	15	15	0.0	0.0	5.615	A



# 2031 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.82	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D30	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	206	100.000
Bar S		ONE HOUR	✓	238	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	1	202	3	0
	Bar S	152	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

From	To			
	Bar E	Bar S	Fleet	Site
Bar E	0	28	67	0
Bar S	35	0	14	100
Fleet	33	53	0	0
Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.19	3.67	0.2	A	189	284
Bar S	0.20	3.46	0.3	A	218	328
Fleet	0.09	4.39	0.1	A	65	98
Site	0.04	5.95	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	155	39	69	1233	0.126	155	117	0.0	0.1	3.336	A
Bar S	179	45	3	1303	0.138	179	220	0.0	0.2	3.201	A
Fleet	53	13	127	929	0.058	53	55	0.0	0.1	4.108	A
Site	17	4	169	661	0.025	16	11	0.0	0.0	5.587	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	185	46	83	1222	0.152	185	140	0.1	0.2	3.469	A
Bar S	214	53	4	1302	0.164	214	264	0.2	0.2	3.307	A
Fleet	64	16	152	916	0.070	64	66	0.1	0.1	4.222	A
Site	20	5	203	648	0.031	20	13	0.0	0.0	5.733	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	227	57	101	1208	0.188	227	172	0.2	0.2	3.667	A
Bar S	262	66	4	1302	0.201	262	323	0.2	0.3	3.461	A
Fleet	78	20	186	899	0.087	78	80	0.1	0.1	4.387	A
Site	24	6	249	630	0.038	24	15	0.0	0.0	5.946	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	227	57	101	1208	0.188	227	172	0.2	0.2	3.667	A
Bar S	262	66	4	1302	0.201	262	324	0.3	0.3	3.461	A
Fleet	78	20	186	899	0.087	78	80	0.1	0.1	4.387	A
Site	24	6	249	629	0.038	24	15	0.0	0.0	5.947	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	185	46	83	1222	0.152	185	140	0.2	0.2	3.471	A
Bar S	214	53	4	1302	0.164	214	265	0.3	0.2	3.308	A
Fleet	64	16	152	916	0.070	64	66	0.1	0.1	4.226	A
Site	20	5	203	647	0.031	20	13	0.0	0.0	5.735	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	155	39	69	1233	0.126	155	118	0.2	0.1	3.341	A
Bar S	179	45	3	1303	0.138	179	222	0.2	0.2	3.204	A
Fleet	53	13	127	929	0.058	54	55	0.1	0.1	4.113	A
Site	17	4	170	661	0.025	17	11	0.0	0.0	5.592	A

# 2031 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	4.25	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D33	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	128	100.000
Bar S		ONE HOUR	✓	298	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	126	2	0
	Bar S	226	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

From	To				
	Bar E	Bar S	Fleet	Site	
Bar E	0	60	100	0	
Bar S	35	0	50	100	
Fleet	0	55	0	0	
Site	0	100	0	0	

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.14	4.23	0.2	A	117	176
Bar S	0.27	4.06	0.4	A	273	410
Fleet	0.04	4.43	0.0	A	29	44
Site	0.04	6.04	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	96	24	38	1003	0.096	96	170	0.0	0.1	3.966	A
Bar S	224	56	1	1215	0.185	223	133	0.0	0.2	3.627	A
Fleet	24	6	184	892	0.027	24	40	0.0	0.0	4.145	A
Site	15	4	193	653	0.023	15	15	0.0	0.0	5.644	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	115	29	46	998	0.115	115	204	0.1	0.1	4.075	A
Bar S	268	67	2	1215	0.221	268	159	0.2	0.3	3.801	A
Fleet	29	7	221	874	0.033	29	49	0.0	0.0	4.260	A
Site	18	4	232	638	0.028	18	18	0.0	0.0	5.806	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	141	35	56	992	0.142	141	250	0.1	0.2	4.231	A
Bar S	328	82	2	1214	0.270	328	195	0.3	0.4	4.057	A
Fleet	35	9	271	848	0.042	35	59	0.0	0.0	4.428	A
Site	22	6	284	618	0.036	22	22	0.0	0.0	6.042	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	141	35	56	992	0.142	141	250	0.2	0.2	4.231	A
Bar S	328	82	2	1214	0.270	328	195	0.4	0.4	4.061	A
Fleet	35	9	271	848	0.042	35	59	0.0	0.0	4.429	A
Site	22	6	284	618	0.036	22	22	0.0	0.0	6.043	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	115	29	46	998	0.115	115	204	0.2	0.1	4.076	A
Bar S	268	67	2	1215	0.221	268	159	0.4	0.3	3.803	A
Fleet	29	7	221	873	0.033	29	49	0.0	0.0	4.262	A
Site	18	4	232	638	0.028	18	18	0.0	0.0	5.810	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	96	24	38	1003	0.096	96	171	0.1	0.1	3.972	A
Bar S	224	56	2	1215	0.185	225	133	0.3	0.2	3.637	A
Fleet	24	6	185	892	0.027	24	41	0.0	0.0	4.148	A
Site	15	4	194	652	0.023	15	15	0.0	0.0	5.648	A

# 2031 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.89	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D34	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	226	100.000
Bar S		ONE HOUR	✓	243	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	1	222	3	0
	Bar S	157	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

From	To				
	Bar E	Bar S	Fleet	Site	
Bar E	0	29	67	0	
Bar S	37	0	14	100	
Fleet	33	53	0	0	
Site	0	100	0	0	

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.21	3.79	0.3	A	207	311
Bar S	0.21	3.52	0.3	A	223	334
Fleet	0.09	4.41	0.1	A	65	98
Site	0.04	5.98	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	170	43	69	1224	0.139	170	121	0.0	0.2	3.412	A
Bar S	183	46	3	1290	0.142	182	235	0.0	0.2	3.249	A
Fleet	53	13	131	926	0.058	53	55	0.0	0.1	4.121	A
Site	17	4	173	659	0.025	16	11	0.0	0.0	5.605	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	203	51	83	1213	0.167	203	145	0.2	0.2	3.562	A
Bar S	218	55	4	1289	0.169	218	282	0.2	0.2	3.361	A
Fleet	64	16	156	913	0.070	64	66	0.1	0.1	4.239	A
Site	20	5	208	645	0.031	20	13	0.0	0.0	5.756	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	249	62	101	1199	0.207	249	177	0.2	0.3	3.786	A
Bar S	268	67	4	1289	0.208	267	345	0.2	0.3	3.525	A
Fleet	78	20	191	895	0.087	78	80	0.1	0.1	4.409	A
Site	24	6	254	626	0.039	24	15	0.0	0.0	5.977	A



17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	249	62	101	1199	0.207	249	177	0.3	0.3	3.786	A
Bar S	268	67	4	1289	0.208	268	346	0.3	0.3	3.525	A
Fleet	78	20	192	895	0.087	78	80	0.1	0.1	4.409	A
Site	24	6	254	626	0.039	24	15	0.0	0.0	5.978	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	203	51	83	1213	0.167	203	145	0.3	0.2	3.564	A
Bar S	218	55	4	1289	0.169	219	283	0.3	0.2	3.365	A
Fleet	64	16	157	913	0.070	64	66	0.1	0.1	4.240	A
Site	20	5	208	645	0.031	20	13	0.0	0.0	5.761	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	170	43	69	1224	0.139	170	121	0.2	0.2	3.420	A
Bar S	183	46	3	1290	0.142	183	237	0.2	0.2	3.255	A
Fleet	53	13	131	926	0.058	54	55	0.1	0.1	4.125	A
Site	17	4	174	658	0.025	17	11	0.0	0.0	5.610	A

# Junctions 9

## ARCADY 9 - Roundabout Module

Version: 9.0.2.5947  
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**Filename:** Fleet End - Barge Way.j9

**Path:** P:\JNY9290 - Kemsley K5\Transport\Arcady\WKN DCO\Fleet End - Barge Way

**Report generation date:** 18/03/2019 09:03:11

- »2017, AM
- »2017, PM
- »2024, AM
- »2024, PM
- »2024 + Cumulative Development, AM
- »2024 + Cumulative Development, PM
- »2024 + K3 Operational, AM
- »2024 + K3 Operational, PM
- »2024 + WKN Operational, AM
- »2024 + WKN Operational, PM
- »2024 + K3 and WKN Operational, AM
- »2024 + K3 and WKN Operational, PM
- »2024 + K3 Operational + Cumulative Development, AM
- »2024 + K3 Operational + Cumulative Development, PM
- »2024 + WKN Operational + Cumulative Development, AM
- »2024 + WKN Operational + Cumulative Development, PM
- »2024 + K3 and WKN Operational + Cumulative Development, AM
- »2024 + K3 and WKN Operational + Cumulative Development, PM
- »2031, AM
- »2031, PM
- »2031 + Cumulative Development, AM
- »2031 + Cumulative Development, PM
- »2031 + K3 Operational, AM
- »2031 + K3 Operational, PM
- »2031 + WKN Operational, AM
- »2031 + WKN Operational, PM
- »2031 + K3 and WKN Operational, AM
- »2031 + K3 and WKN Operational, PM
- »2031 + K3 Operational + Cumulative Development, AM
- »2031 + K3 Operational + Cumulative Development, PM
- »2031 + WKN Operational + Cumulative Development, AM
- »2031 + WKN Operational + Cumulative Development, PM
- »2031 + K3 and WKN Operational + Cumulative Development, AM
- »2031 + K3 and WKN Operational + Cumulative Development, PM

### Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
<b>2017</b>						
Arm Bar E	0.1	4.29	0.07	0.1	3.32	0.13
Arm Bar S	0.2	3.51	0.17	0.2	3.03	0.14
Arm Fleet	0.0	4.10	0.04	0.1	4.18	0.08

Arm Site	0.0	0.00	0.00	0.0	0.00	0.00
<b>2024</b>						
Arm Bar E	0.1	4.08	0.13	0.2	3.66	0.19
Arm Bar S	0.3	3.90	0.26	0.2	3.43	0.20
Arm Fleet	0.0	4.38	0.04	0.1	4.38	0.09
Arm Site	0.0	5.97	0.04	0.0	5.93	0.04
<b>2024 + Cumulative Development</b>						
Arm Bar E	0.1	4.08	0.13	0.2	3.66	0.19
Arm Bar S	0.3	3.90	0.26	0.2	3.43	0.20
Arm Fleet	0.0	4.38	0.04	0.1	4.38	0.09
Arm Site	0.0	5.97	0.04	0.0	5.93	0.04
<b>2024 + K3 Operational</b>						
Arm Bar E	0.1	4.12	0.13	0.2	3.67	0.19
Arm Bar S	0.3	3.94	0.26	0.3	3.46	0.20
Arm Fleet	0.0	4.39	0.04	0.1	4.39	0.09
Arm Site	0.0	5.98	0.04	0.0	5.95	0.04
<b>2024 + WKN Operational</b>						
Arm Bar E	0.2	4.19	0.14	0.3	3.78	0.21
Arm Bar S	0.4	4.02	0.27	0.3	3.49	0.20
Arm Fleet	0.0	4.42	0.04	0.1	4.40	0.09
Arm Site	0.0	6.03	0.04	0.0	5.96	0.04
<b>2024 + K3 and WKN Operational</b>						
Arm Bar E	0.2	4.23	0.14	0.3	3.79	0.21
Arm Bar S	0.4	4.06	0.27	0.3	3.52	0.21
Arm Fleet	0.0	4.43	0.04	0.1	4.41	0.09
Arm Site	0.0	6.04	0.04	0.0	5.98	0.04
<b>2024 + K3 Operational + Cumulative Development</b>						
Arm Bar E	0.1	4.12	0.13	0.2	3.67	0.19
Arm Bar S	0.3	3.94	0.26	0.3	3.46	0.20
Arm Fleet	0.0	4.39	0.04	0.1	4.39	0.09
Arm Site	0.0	5.98	0.04	0.0	5.95	0.04
<b>2024 + WKN Operational + Cumulative Development</b>						
Arm Bar E	0.2	4.19	0.14	0.3	3.78	0.20
Arm Bar S	0.4	4.02	0.27	0.3	3.49	0.20
Arm Fleet	0.0	4.42	0.04	0.1	4.39	0.09
Arm Site	0.0	6.03	0.04	0.0	5.96	0.04
<b>2024 + K3 and WKN Operational + Cumulative Development</b>						
Arm Bar E	0.2	4.23	0.14	0.3	3.79	0.21
Arm Bar S	0.4	4.06	0.27	0.3	3.52	0.21
Arm Fleet	0.0	4.43	0.04	0.1	4.41	0.09
Arm Site	0.0	6.04	0.04	0.0	5.97	0.04
<b>2031</b>						
Arm Bar E	0.1	4.08	0.13	0.2	3.66	0.19
Arm Bar S	0.3	3.90	0.26	0.2	3.43	0.20
Arm Fleet	0.0	4.38	0.04	0.1	4.38	0.09
Arm Site	0.0	5.97	0.04	0.0	5.93	0.04
<b>2031 + Cumulative Development</b>						
Arm Bar E	0.1	4.08	0.13	0.2	3.66	0.19
Arm Bar S	0.3	3.90	0.26	0.2	3.43	0.20
Arm Fleet	0.0	4.38	0.04	0.1	4.38	0.09
Arm Site	0.0	5.97	0.04	0.0	5.93	0.04
<b>2031 + K3 Operational</b>						
Arm Bar E	0.1	4.12	0.13	0.2	3.67	0.19
Arm Bar S	0.3	3.94	0.26	0.3	3.46	0.20
Arm Fleet	0.0	4.39	0.04	0.1	4.39	0.09
Arm Site	0.0	5.98	0.04	0.0	5.95	0.04
<b>2031 + WKN Operational</b>						
Arm Bar E	0.2	4.19	0.14	0.3	3.78	0.21
Arm Bar S	0.4	4.02	0.27	0.3	3.49	0.20
Arm Fleet						

	0.0	4.42	0.04	0.1	4.40	0.09
<b>Arm Site</b>	0.0	6.03	0.04	0.0	5.96	0.04
<b>2031 + K3 and WKN Operational</b>						
<b>Arm Bar E</b>	0.2	4.23	0.14	0.3	3.79	0.21
<b>Arm Bar S</b>	0.4	4.06	0.27	0.3	3.52	0.21
<b>Arm Fleet</b>	0.0	4.43	0.04	0.1	4.41	0.09
<b>Arm Site</b>	0.0	6.04	0.04	0.0	5.98	0.04
<b>2031 + K3 Operational + Cumulative Development</b>						
<b>Arm Bar E</b>	0.1	4.12	0.13	0.2	3.67	0.19
<b>Arm Bar S</b>	0.3	3.94	0.26	0.3	3.46	0.20
<b>Arm Fleet</b>	0.0	4.39	0.04	0.1	4.39	0.09
<b>Arm Site</b>	0.0	5.98	0.04	0.0	5.95	0.04
<b>2031 + WKN Operational + Cumulative Development</b>						
<b>Arm Bar E</b>	0.2	4.19	0.14	0.3	3.78	0.20
<b>Arm Bar S</b>	0.4	4.02	0.27	0.3	3.49	0.20
<b>Arm Fleet</b>	0.0	4.42	0.04	0.1	4.39	0.09
<b>Arm Site</b>	0.0	6.03	0.04	0.0	5.96	0.04
<b>2031 + K3 and WKN Operational + Cumulative Development</b>						
<b>Arm Bar E</b>	0.2	4.23	0.14	0.3	3.79	0.21
<b>Arm Bar S</b>	0.4	4.06	0.27	0.3	3.52	0.21
<b>Arm Fleet</b>	0.0	4.43	0.04	0.1	4.41	0.09
<b>Arm Site</b>	0.0	6.04	0.04	0.0	5.98	0.04

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

## File summary

### File Description

<b>Title</b>	(untitled)
<b>Location</b>	
<b>Site number</b>	
<b>Date</b>	08/11/2017
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	EUR\jack.clarke-williams
<b>Description</b>	

## Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

## Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

## Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓
D4	2024	PM	ONE	16:15	17:45	15	✓

			HOUR				
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D9	2024 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D10	2024 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D15	2024 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D16	2024 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓
D21	2031 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D22	2031 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D23	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D24	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D25	2031 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D26	2031 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D27	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D28	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D29	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D30	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D31	2031 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D32	2031 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D33	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D34	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

### Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

# 2017, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.78	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Name	Description
Bar E	untitled	
Bar S	untitled	
Fleet	untitled	
Site	untitled	

### Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
Bar E	3.50	7.00	21.0	18.0	44.0	45.0	
Bar S	4.00	6.50	23.0	24.0	45.0	40.0	
Fleet	3.50	7.00	16.5	11.5	44.0	50.0	
Site	3.50	6.50	11.0	13.5	44.0	40.0	

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
Bar E	0.604	1651
Bar S	0.625	1727
Fleet	0.563	1514
Site	0.566	1456

The slope and intercept shown above include any corrections and adjustments.

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)

✓	✓	HV Percentages	2.00
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### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	61	100.000
Bar S		ONE HOUR	✓	187	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	0	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

	To				
	Bar E	Bar S	Fleet	Site	
From	Bar E	0	59	2	0
	Bar S	135	0	52	0
	Fleet	1	31	0	0
	Site	0	0	0	0

### Vehicle Mix

#### Heavy Vehicle Percentages

	To				
	Bar E	Bar S	Fleet	Site	
From	Bar E	0	78	100	0
	Bar S	36	0	50	0
	Fleet	0	55	0	0
	Site	0	0	0	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.07	4.29	0.1	A	56	84
Bar S	0.17	3.51	0.2	A	172	257
Fleet	0.04	4.10	0.0	A	29	44
Site	0.00	0.00	0.0	A	0	0

#### Main Results for each time segment

##### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	46	11	23	912	0.050	46	102	0.0	0.1	4.155	A
Bar S	141	35	1	1233	0.114	140	67	0.0	0.1	3.292	A
Fleet	24	6	101	937	0.026	24	41	0.0	0.0	3.943	A
Site	0	0	125	1357	0.000	0	0	0.0	0.0	0.000	A

##### 07:30 - 07:45

Arm	Total Demand	Junction Arrivals	Circulating flow	Capacity	RFC	Throughput	Throughput (exit side)	Start queue	End queue	Delay	LOS
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	(Veh/hr)	(Veh)	(Veh/hr)	(Veh/hr)		(Veh/hr)	(Veh/hr)	(Veh)	(Veh)	(s)	
Bar E	55	14	28	909	0.060	55	122	0.1	0.1	4.212	A
Bar S	168	42	2	1233	0.136	168	81	0.1	0.2	3.380	A
Fleet	29	7	121	927	0.031	29	49	0.0	0.0	4.008	A
Site	0	0	150	1338	0.000	0	0	0.0	0.0	0.000	A

**07:45 - 08:00**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	67	17	34	906	0.074	67	150	0.1	0.1	4.290	A
Bar S	206	51	2	1232	0.167	206	99	0.2	0.2	3.505	A
Fleet	35	9	149	913	0.039	35	59	0.0	0.0	4.099	A
Site	0	0	184	1311	0.000	0	0	0.0	0.0	0.000	A

**08:00 - 08:15**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	67	17	34	906	0.074	67	150	0.1	0.1	4.290	A
Bar S	206	51	2	1232	0.167	206	99	0.2	0.2	3.505	A
Fleet	35	9	149	913	0.039	35	59	0.0	0.0	4.100	A
Site	0	0	184	1311	0.000	0	0	0.0	0.0	0.000	A

**08:15 - 08:30**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	55	14	28	909	0.060	55	122	0.1	0.1	4.214	A
Bar S	168	42	2	1233	0.136	168	81	0.2	0.2	3.384	A
Fleet	29	7	121	927	0.031	29	49	0.0	0.0	4.010	A
Site	0	0	150	1337	0.000	0	0	0.0	0.0	0.000	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	46	11	23	912	0.050	46	102	0.1	0.1	4.159	A
Bar S	141	35	2	1233	0.114	141	68	0.2	0.1	3.295	A
Fleet	24	6	102	937	0.026	24	41	0.0	0.0	3.946	A
Site	0	0	126	1357	0.000	0	0	0.0	0.0	0.000	A



# 2017, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.38	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	141	100.000
Bar S		ONE HOUR	✓	173	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	1	137	3	0
	Bar S	101	2	70	0
	Fleet	3	68	0	0
	Site	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	27	67	0
	Bar S	33	0	14	0
	Fleet	33	53	0	0
	Site	0	0	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.13	3.32	0.1	A	129	194
Bar S	0.14	3.03	0.2	A	159	238
Fleet	0.08	4.18	0.1	A	65	98
Site	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	106	27	52	1256	0.085	106	79	0.0	0.1	3.130	A
Bar S	130	33	3	1380	0.094	130	155	0.0	0.1	2.879	A
Fleet	53	13	78	957	0.056	53	55	0.0	0.1	3.984	A
Site	0	0	131	1352	0.000	0	0	0.0	0.0	0.000	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	127	32	63	1249	0.102	127	94	0.1	0.1	3.208	A
Bar S	156	39	4	1380	0.113	155	186	0.1	0.1	2.940	A
Fleet	64	16	93	949	0.067	64	66	0.1	0.1	4.066	A
Site	0	0	157	1331	0.000	0	0	0.0	0.0	0.000	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	155	39	77	1238	0.125	155	116	0.1	0.1	3.322	A
Bar S	190	48	4	1379	0.138	190	228	0.1	0.2	3.028	A
Fleet	78	20	114	939	0.083	78	80	0.1	0.1	4.182	A
Site	0	0	193	1303	0.000	0	0	0.0	0.0	0.000	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	155	39	77	1238	0.125	155	116	0.1	0.1	3.323	A
Bar S	190	48	4	1379	0.138	190	228	0.2	0.2	3.028	A
Fleet	78	20	115	939	0.083	78	80	0.1	0.1	4.182	A
Site	0	0	193	1303	0.000	0	0	0.0	0.0	0.000	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar	127	32	63	1248	0.102	127	94	0.1	0.1	3.211	A

<b>E</b>											
<b>Bar S</b>	156	39	4	1380	0.113	156	186	0.2	0.1	2.940	A
<b>Fleet</b>	64	16	94	949	0.067	64	66	0.1	0.1	4.067	A
<b>Site</b>	0	0	157	1331	0.000	0	0	0.0	0.0	0.000	A

## 17:30 - 17:45

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>Bar E</b>	106	27	53	1256	0.085	106	79	0.1	0.1	3.131	A
<b>Bar S</b>	130	33	3	1380	0.094	130	156	0.1	0.1	2.882	A
<b>Fleet</b>	53	13	78	956	0.056	54	55	0.1	0.1	3.988	A
<b>Site</b>	0	0	132	1351	0.000	0	0	0.0	0.0	0.000	A

# 2024, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	4.11	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	115	100.000
Bar S		ONE HOUR	✓	287	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	113	2	0
	Bar S	215	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	57	100	0
	Bar S	31	0	50	100
	Fleet	0	55	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.13	4.08	0.1	A	106	158
Bar S	0.26	3.90	0.3	A	263	395
Fleet	0.04	4.38	0.0	A	29	44
Site	0.04	5.97	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	87	22	38	1022	0.085	86	162	0.0	0.1	3.846	A
Bar S	216	54	1	1239	0.174	215	123	0.0	0.2	3.513	A
Fleet	24	6	176	899	0.027	24	40	0.0	0.0	4.115	A
Site	15	4	185	658	0.023	15	15	0.0	0.0	5.600	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	103	26	46	1017	0.102	103	194	0.1	0.1	3.941	A
Bar S	258	65	2	1239	0.208	258	147	0.2	0.3	3.670	A
Fleet	29	7	211	881	0.033	29	49	0.0	0.0	4.222	A
Site	18	4	222	644	0.028	18	18	0.0	0.0	5.751	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	127	32	56	1010	0.125	126	238	0.1	0.1	4.076	A
Bar S	316	79	2	1238	0.255	316	180	0.3	0.3	3.902	A
Fleet	35	9	258	858	0.041	35	59	0.0	0.0	4.377	A
Site	22	6	272	625	0.035	22	22	0.0	0.0	5.969	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	127	32	56	1010	0.125	127	238	0.1	0.1	4.076	A
Bar S	316	79	2	1238	0.255	316	181	0.3	0.3	3.903	A
Fleet	35	9	259	857	0.041	35	59	0.0	0.0	4.378	A
Site	22	6	272	625	0.035	22	22	0.0	0.0	5.970	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar	103	26	46	1016	0.102	103	194	0.1	0.1	3.943	A

<b>E</b>											
<b>Bar S</b>	258	65	2	1239	0.208	258	148	0.3	0.3	3.672	A
<b>Fleet</b>	29	7	212	881	0.033	29	49	0.0	0.0	4.225	A
<b>Site</b>	18	4	222	644	0.028	18	18	0.0	0.0	5.753	A

08:30 - 08:45

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>Bar E</b>	87	22	38	1021	0.085	87	163	0.1	0.1	3.851	A
<b>Bar S</b>	216	54	2	1239	0.174	216	124	0.3	0.2	3.520	A
<b>Fleet</b>	24	6	177	898	0.027	24	41	0.0	0.0	4.117	A
<b>Site</b>	15	4	186	657	0.023	15	15	0.0	0.0	5.604	A

# 2024, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.81	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	204	100.000
Bar S		ONE HOUR	✓	235	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	1	200	3	0
	Bar S	149	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	28	67	0
	Bar S	34	0	14	100
	Fleet	33	53	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.19	3.66	0.2	A	187	281
Bar S	0.20	3.43	0.2	A	216	323
Fleet	0.09	4.38	0.1	A	65	98
Site	0.04	5.93	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	154	38	69	1233	0.125	153	115	0.0	0.1	3.332	A
Bar S	177	44	3	1309	0.135	176	219	0.0	0.2	3.176	A
Fleet	53	13	125	931	0.057	53	55	0.0	0.1	4.101	A
Site	17	4	167	662	0.025	16	11	0.0	0.0	5.576	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	183	46	83	1222	0.150	183	137	0.1	0.2	3.464	A
Bar S	211	53	4	1309	0.161	211	262	0.2	0.2	3.279	A
Fleet	64	16	149	918	0.070	64	66	0.1	0.1	4.213	A
Site	20	5	200	649	0.030	20	13	0.0	0.0	5.721	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	225	56	101	1208	0.186	224	168	0.2	0.2	3.659	A
Bar S	259	65	4	1308	0.198	259	321	0.2	0.2	3.429	A
Fleet	78	20	183	901	0.087	78	80	0.1	0.1	4.375	A
Site	24	6	245	631	0.038	24	15	0.0	0.0	5.929	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	225	56	101	1208	0.186	225	168	0.2	0.2	3.659	A
Bar S	259	65	4	1308	0.198	259	321	0.2	0.2	3.429	A
Fleet	78	20	183	901	0.087	78	80	0.1	0.1	4.375	A
Site	24	6	246	631	0.038	24	15	0.0	0.0	5.930	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar	183	46	83	1222	0.150	184	138	0.2	0.2	3.465	A



<b>E</b>											
<b>Bar S</b>	211	53	4	1309	0.161	211	263	0.2	0.2	3.280	A
<b>Fleet</b>	64	16	149	918	0.070	64	66	0.1	0.1	4.216	A
<b>Site</b>	20	5	201	649	0.030	20	13	0.0	0.0	5.722	A

## 17:30 - 17:45

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>Bar E</b>	154	38	69	1233	0.125	154	115	0.2	0.1	3.336	A
<b>Bar S</b>	177	44	3	1309	0.135	177	220	0.2	0.2	3.179	A
<b>Fleet</b>	53	13	125	930	0.057	54	55	0.1	0.1	4.106	A
<b>Site</b>	17	4	168	662	0.025	17	11	0.0	0.0	5.582	A

# 2024 + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	4.11	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	115	100.000
Bar S		ONE HOUR	✓	287	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	113	2	0
	Bar S	215	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	57	100	0
	Bar S	31	0	50	100
	Fleet	0	55	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.13	4.08	0.1	A	106	158
Bar S	0.26	3.90	0.3	A	263	395
Fleet	0.04	4.38	0.0	A	29	44
Site	0.04	5.97	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	87	22	38	1022	0.085	86	162	0.0	0.1	3.846	A
Bar S	216	54	1	1239	0.174	215	123	0.0	0.2	3.513	A
Fleet	24	6	176	899	0.027	24	40	0.0	0.0	4.115	A
Site	15	4	185	658	0.023	15	15	0.0	0.0	5.600	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	103	26	46	1017	0.102	103	194	0.1	0.1	3.941	A
Bar S	258	65	2	1239	0.208	258	147	0.2	0.3	3.670	A
Fleet	29	7	211	881	0.033	29	49	0.0	0.0	4.222	A
Site	18	4	222	644	0.028	18	18	0.0	0.0	5.751	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	127	32	56	1010	0.125	126	238	0.1	0.1	4.076	A
Bar S	316	79	2	1238	0.255	316	180	0.3	0.3	3.902	A
Fleet	35	9	258	858	0.041	35	59	0.0	0.0	4.377	A
Site	22	6	272	625	0.035	22	22	0.0	0.0	5.969	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	127	32	56	1010	0.125	127	238	0.1	0.1	4.076	A
Bar S	316	79	2	1238	0.255	316	181	0.3	0.3	3.903	A
Fleet	35	9	259	857	0.041	35	59	0.0	0.0	4.378	A
Site	22	6	272	625	0.035	22	22	0.0	0.0	5.970	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar	103	26	46	1016	0.102	103	194	0.1	0.1	3.943	A

<b>E</b>											
<b>Bar S</b>	258	65	2	1239	0.208	258	148	0.3	0.3	3.672	A
<b>Fleet</b>	29	7	212	881	0.033	29	49	0.0	0.0	4.225	A
<b>Site</b>	18	4	222	644	0.028	18	18	0.0	0.0	5.753	A

**08:30 - 08:45**

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>Bar E</b>	87	22	38	1021	0.085	87	163	0.1	0.1	3.851	A
<b>Bar S</b>	216	54	2	1239	0.174	216	124	0.3	0.2	3.520	A
<b>Fleet</b>	24	6	177	898	0.027	24	41	0.0	0.0	4.117	A
<b>Site</b>	15	4	186	657	0.023	15	15	0.0	0.0	5.604	A

# 2024 + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.81	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	204	100.000
Bar S		ONE HOUR	✓	235	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	1	200	3	0
	Bar S	149	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	28	67	0
	Bar S	34	0	14	100
	Fleet	33	53	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.19	3.66	0.2	A	187	281
Bar S	0.20	3.43	0.2	A	216	323
Fleet	0.09	4.38	0.1	A	65	98
Site	0.04	5.93	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	154	38	69	1233	0.125	153	115	0.0	0.1	3.332	A
Bar S	177	44	3	1309	0.135	176	219	0.0	0.2	3.176	A
Fleet	53	13	125	931	0.057	53	55	0.0	0.1	4.101	A
Site	17	4	167	662	0.025	16	11	0.0	0.0	5.576	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	183	46	83	1222	0.150	183	137	0.1	0.2	3.464	A
Bar S	211	53	4	1309	0.161	211	262	0.2	0.2	3.279	A
Fleet	64	16	149	918	0.070	64	66	0.1	0.1	4.213	A
Site	20	5	200	649	0.030	20	13	0.0	0.0	5.721	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	225	56	101	1208	0.186	224	168	0.2	0.2	3.659	A
Bar S	259	65	4	1308	0.198	259	321	0.2	0.2	3.429	A
Fleet	78	20	183	901	0.087	78	80	0.1	0.1	4.375	A
Site	24	6	245	631	0.038	24	15	0.0	0.0	5.929	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	225	56	101	1208	0.186	225	168	0.2	0.2	3.659	A
Bar S	259	65	4	1308	0.198	259	321	0.2	0.2	3.429	A
Fleet	78	20	183	901	0.087	78	80	0.1	0.1	4.375	A
Site	24	6	246	631	0.038	24	15	0.0	0.0	5.930	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar	183	46	83	1222	0.150	184	138	0.2	0.2	3.465	A

<b>E</b>											
<b>Bar S</b>	211	53	4	1309	0.161	211	263	0.2	0.2	3.280	A
<b>Fleet</b>	64	16	149	918	0.070	64	66	0.1	0.1	4.216	A
<b>Site</b>	20	5	201	649	0.030	20	13	0.0	0.0	5.722	A

## 17:30 - 17:45

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>Bar E</b>	154	38	69	1233	0.125	154	115	0.2	0.1	3.336	A
<b>Bar S</b>	177	44	3	1309	0.135	177	220	0.2	0.2	3.179	A
<b>Fleet</b>	53	13	125	930	0.057	54	55	0.1	0.1	4.106	A
<b>Site</b>	17	4	168	662	0.025	17	11	0.0	0.0	5.582	A

# 2024 + K3 Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	4.14	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	118	100.000
Bar S		ONE HOUR	✓	289	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	116	2	0
	Bar S	217	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	58	100	0
	Bar S	32	0	50	100
	Fleet	0	55	0	0
	Site	0	100	0	0



## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.13	4.12	0.1	A	108	162
Bar S	0.26	3.94	0.3	A	265	398
Fleet	0.04	4.39	0.0	A	29	44
Site	0.04	5.98	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	89	22	38	1015	0.087	88	163	0.0	0.1	3.882	A
Bar S	218	54	1	1233	0.177	217	125	0.0	0.2	3.540	A
Fleet	24	6	178	898	0.027	24	40	0.0	0.0	4.121	A
Site	15	4	187	657	0.023	15	15	0.0	0.0	5.609	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	106	27	46	1010	0.105	106	196	0.1	0.1	3.980	A
Bar S	260	65	2	1232	0.211	260	150	0.2	0.3	3.700	A
Fleet	29	7	213	880	0.033	29	49	0.0	0.0	4.230	A
Site	18	4	224	643	0.028	18	18	0.0	0.0	5.762	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	130	32	56	1004	0.129	130	240	0.1	0.1	4.120	A
Bar S	318	80	2	1232	0.258	318	184	0.3	0.3	3.937	A
Fleet	35	9	261	856	0.041	35	59	0.0	0.0	4.388	A
Site	22	6	274	624	0.035	22	22	0.0	0.0	5.984	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	130	32	56	1004	0.129	130	240	0.1	0.1	4.120	A
Bar S	318	80	2	1232	0.258	318	184	0.3	0.3	3.939	A
Fleet	35	9	261	855	0.041	35	59	0.0	0.0	4.388	A
Site	22	6	274	623	0.035	22	22	0.0	0.0	5.985	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar	106	27	46	1010	0.105	106	196	0.1	0.1	3.983	A

<b>E</b>											
<b>Bar S</b>	260	65	2	1232	0.211	260	150	0.3	0.3	3.702	A
<b>Fleet</b>	29	7	213	880	0.033	29	49	0.0	0.0	4.233	A
<b>Site</b>	18	4	224	643	0.028	18	18	0.0	0.0	5.766	A

**08:30 - 08:45**

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>Bar E</b>	89	22	38	1015	0.088	89	164	0.1	0.1	3.886	A
<b>Bar S</b>	218	54	2	1233	0.177	218	126	0.3	0.2	3.549	A
<b>Fleet</b>	24	6	179	897	0.027	24	41	0.0	0.0	4.123	A
<b>Site</b>	15	4	188	656	0.023	15	15	0.0	0.0	5.615	A

# 2024 + K3 Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.82	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	206	100.000
Bar S		ONE HOUR	✓	238	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	1	202	3	0
	Bar S	152	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	28	67	0
	Bar S	35	0	14	100
	Fleet	33	53	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.19	3.67	0.2	A	189	284
Bar S	0.20	3.46	0.3	A	218	328
Fleet	0.09	4.39	0.1	A	65	98
Site	0.04	5.95	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	155	39	69	1233	0.126	155	117	0.0	0.1	3.336	A
Bar S	179	45	3	1303	0.138	179	220	0.0	0.2	3.201	A
Fleet	53	13	127	929	0.058	53	55	0.0	0.1	4.108	A
Site	17	4	169	661	0.025	16	11	0.0	0.0	5.587	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	185	46	83	1222	0.152	185	140	0.1	0.2	3.469	A
Bar S	214	53	4	1302	0.164	214	264	0.2	0.2	3.307	A
Fleet	64	16	152	916	0.070	64	66	0.1	0.1	4.222	A
Site	20	5	203	648	0.031	20	13	0.0	0.0	5.733	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	227	57	101	1208	0.188	227	172	0.2	0.2	3.667	A
Bar S	262	66	4	1302	0.201	262	323	0.2	0.3	3.461	A
Fleet	78	20	186	899	0.087	78	80	0.1	0.1	4.387	A
Site	24	6	249	630	0.038	24	15	0.0	0.0	5.946	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	227	57	101	1208	0.188	227	172	0.2	0.2	3.667	A
Bar S	262	66	4	1302	0.201	262	324	0.3	0.3	3.461	A
Fleet	78	20	186	899	0.087	78	80	0.1	0.1	4.387	A
Site	24	6	249	629	0.038	24	15	0.0	0.0	5.947	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar	185	46	83	1222	0.152	185	140	0.2	0.2	3.471	A

<b>E</b>											
<b>Bar S</b>	214	53	4	1302	0.164	214	265	0.3	0.2	3.308	A
<b>Fleet</b>	64	16	152	916	0.070	64	66	0.1	0.1	4.226	A
<b>Site</b>	20	5	203	647	0.031	20	13	0.0	0.0	5.735	A

## 17:30 - 17:45

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>Bar E</b>	155	39	69	1233	0.126	155	118	0.2	0.1	3.341	A
<b>Bar S</b>	179	45	3	1303	0.138	179	222	0.2	0.2	3.204	A
<b>Fleet</b>	53	13	127	929	0.058	54	55	0.1	0.1	4.113	A
<b>Site</b>	17	4	170	661	0.025	17	11	0.0	0.0	5.592	A

# 2024 + WKN Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	4.21	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2024 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	125	100.000
Bar S		ONE HOUR	✓	296	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	123	2	0
	Bar S	224	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	59	100	0
	Bar S	34	0	50	100
	Fleet	0	55	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.14	4.19	0.2	A	115	172
Bar S	0.27	4.02	0.4	A	272	407
Fleet	0.04	4.42	0.0	A	29	44
Site	0.04	6.03	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	94	24	38	1009	0.093	94	169	0.0	0.1	3.929	A
Bar S	223	56	1	1221	0.183	222	130	0.0	0.2	3.599	A
Fleet	24	6	183	894	0.027	24	40	0.0	0.0	4.139	A
Site	15	4	192	654	0.023	15	15	0.0	0.0	5.635	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	112	28	46	1004	0.112	112	202	0.1	0.1	4.035	A
Bar S	266	67	2	1221	0.218	266	156	0.2	0.3	3.769	A
Fleet	29	7	219	875	0.033	29	49	0.0	0.0	4.252	A
Site	18	4	230	639	0.028	18	18	0.0	0.0	5.794	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	138	34	56	998	0.138	137	247	0.1	0.2	4.185	A
Bar S	326	81	2	1220	0.267	326	191	0.3	0.4	4.023	A
Fleet	35	9	268	850	0.041	35	59	0.0	0.0	4.417	A
Site	22	6	282	619	0.036	22	22	0.0	0.0	6.026	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	138	34	56	998	0.138	138	248	0.2	0.2	4.185	A
Bar S	326	81	2	1220	0.267	326	192	0.4	0.4	4.024	A
Fleet	35	9	269	850	0.041	35	59	0.0	0.0	4.418	A
Site	22	6	282	619	0.036	22	22	0.0	0.0	6.028	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar	112	28	46	1004	0.112	113	203	0.2	0.1	4.036	A

<b>E</b>											
<b>Bar S</b>	266	67	2	1221	0.218	266	157	0.4	0.3	3.775	A
<b>Fleet</b>	29	7	220	875	0.033	29	49	0.0	0.0	4.254	A
<b>Site</b>	18	4	230	639	0.028	18	18	0.0	0.0	5.796	A

**08:30 - 08:45**

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>Bar E</b>	94	24	38	1009	0.093	94	170	0.1	0.1	3.934	A
<b>Bar S</b>	223	56	2	1221	0.183	223	131	0.3	0.2	3.609	A
<b>Fleet</b>	24	6	184	893	0.027	24	41	0.0	0.0	4.143	A
<b>Site</b>	15	4	193	653	0.023	15	15	0.0	0.0	5.638	A



# 2024 + WKN Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.87	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2024 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	224	100.000
Bar S		ONE HOUR	✓	240	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	1	220	3	0
	Bar S	154	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	29	67	0
	Bar S	36	0	14	100
	Fleet	33	53	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.21	3.78	0.3	A	206	308
Bar S	0.20	3.49	0.3	A	220	330
Fleet	0.09	4.40	0.1	A	65	98
Site	0.04	5.96	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	169	42	69	1224	0.138	168	119	0.0	0.2	3.407	A
Bar S	181	45	3	1296	0.139	180	234	0.0	0.2	3.224	A
Fleet	53	13	128	928	0.058	53	55	0.0	0.1	4.114	A
Site	17	4	171	660	0.025	16	11	0.0	0.0	5.594	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	201	50	83	1213	0.166	201	142	0.2	0.2	3.556	A
Bar S	216	54	4	1296	0.167	216	280	0.2	0.2	3.332	A
Fleet	64	16	154	915	0.070	64	66	0.1	0.1	4.229	A
Site	20	5	205	646	0.031	20	13	0.0	0.0	5.743	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	247	62	101	1199	0.206	246	174	0.2	0.3	3.777	A
Bar S	264	66	4	1295	0.204	264	343	0.2	0.3	3.491	A
Fleet	78	20	188	897	0.087	78	80	0.1	0.1	4.396	A
Site	24	6	251	628	0.039	24	15	0.0	0.0	5.959	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	247	62	101	1199	0.206	247	174	0.3	0.3	3.778	A
Bar S	264	66	4	1295	0.204	264	344	0.3	0.3	3.491	A
Fleet	78	20	188	897	0.087	78	80	0.1	0.1	4.397	A
Site	24	6	251	628	0.039	24	15	0.0	0.0	5.960	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar	201	50	83	1213	0.166	202	142	0.3	0.2	3.561	A

<b>E</b>											
<b>Bar S</b>	216	54	4	1296	0.167	216	281	0.3	0.2	3.333	A
<b>Fleet</b>	64	16	154	915	0.070	64	66	0.1	0.1	4.231	A
<b>Site</b>	20	5	205	646	0.031	20	13	0.0	0.0	5.745	A

## 17:30 - 17:45

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>Bar E</b>	169	42	69	1224	0.138	169	119	0.2	0.2	3.412	A
<b>Bar S</b>	181	45	3	1296	0.139	181	235	0.2	0.2	3.230	A
<b>Fleet</b>	53	13	129	928	0.058	54	55	0.1	0.1	4.119	A
<b>Site</b>	17	4	172	660	0.025	17	11	0.0	0.0	5.598	A

# 2024 + K3 and WKN Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	4.25	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	128	100.000
Bar S		ONE HOUR	✓	298	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	126	2	0
	Bar S	226	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	60	100	0
	Bar S	35	0	50	100
	Fleet	0	55	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.14	4.23	0.2	A	117	176
Bar S	0.27	4.06	0.4	A	273	410
Fleet	0.04	4.43	0.0	A	29	44
Site	0.04	6.04	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	96	24	38	1003	0.096	96	170	0.0	0.1	3.966	A
Bar S	224	56	1	1215	0.185	223	133	0.0	0.2	3.627	A
Fleet	24	6	184	892	0.027	24	40	0.0	0.0	4.145	A
Site	15	4	193	653	0.023	15	15	0.0	0.0	5.644	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	115	29	46	998	0.115	115	204	0.1	0.1	4.075	A
Bar S	268	67	2	1215	0.221	268	159	0.2	0.3	3.801	A
Fleet	29	7	221	874	0.033	29	49	0.0	0.0	4.260	A
Site	18	4	232	638	0.028	18	18	0.0	0.0	5.806	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	141	35	56	992	0.142	141	250	0.1	0.2	4.231	A
Bar S	328	82	2	1214	0.270	328	195	0.3	0.4	4.057	A
Fleet	35	9	271	848	0.042	35	59	0.0	0.0	4.428	A
Site	22	6	284	618	0.036	22	22	0.0	0.0	6.042	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	141	35	56	992	0.142	141	250	0.2	0.2	4.231	A
Bar S	328	82	2	1214	0.270	328	195	0.4	0.4	4.061	A
Fleet	35	9	271	848	0.042	35	59	0.0	0.0	4.429	A
Site	22	6	284	618	0.036	22	22	0.0	0.0	6.043	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar	115	29	46	998	0.115	115	204	0.2	0.1	4.076	A

<b>E</b>											
<b>Bar S</b>	268	67	2	1215	0.221	268	159	0.4	0.3	3.803	A
<b>Fleet</b>	29	7	221	873	0.033	29	49	0.0	0.0	4.262	A
<b>Site</b>	18	4	232	638	0.028	18	18	0.0	0.0	5.810	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>Bar E</b>	96	24	38	1003	0.096	96	171	0.1	0.1	3.972	A
<b>Bar S</b>	224	56	2	1215	0.185	225	133	0.3	0.2	3.637	A
<b>Fleet</b>	24	6	185	892	0.027	24	41	0.0	0.0	4.148	A
<b>Site</b>	15	4	194	652	0.023	15	15	0.0	0.0	5.648	A

# 2024 + K3 and WKN Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.89	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	226	100.000
Bar S		ONE HOUR	✓	243	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	1	222	3	0
	Bar S	157	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	29	67	0
	Bar S	37	0	14	100
	Fleet	33	53	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.21	3.79	0.3	A	207	311
Bar S	0.21	3.52	0.3	A	223	334
Fleet	0.09	4.41	0.1	A	65	98
Site	0.04	5.98	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	170	43	69	1224	0.139	170	121	0.0	0.2	3.412	A
Bar S	183	46	3	1290	0.142	182	235	0.0	0.2	3.249	A
Fleet	53	13	131	926	0.058	53	55	0.0	0.1	4.121	A
Site	17	4	173	659	0.025	16	11	0.0	0.0	5.605	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	203	51	83	1213	0.167	203	145	0.2	0.2	3.562	A
Bar S	218	55	4	1289	0.169	218	282	0.2	0.2	3.361	A
Fleet	64	16	156	913	0.070	64	66	0.1	0.1	4.239	A
Site	20	5	208	645	0.031	20	13	0.0	0.0	5.756	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	249	62	101	1199	0.207	249	177	0.2	0.3	3.786	A
Bar S	268	67	4	1289	0.208	267	345	0.2	0.3	3.525	A
Fleet	78	20	191	895	0.087	78	80	0.1	0.1	4.409	A
Site	24	6	254	626	0.039	24	15	0.0	0.0	5.977	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	249	62	101	1199	0.207	249	177	0.3	0.3	3.786	A
Bar S	268	67	4	1289	0.208	268	346	0.3	0.3	3.525	A
Fleet	78	20	192	895	0.087	78	80	0.1	0.1	4.409	A
Site	24	6	254	626	0.039	24	15	0.0	0.0	5.978	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar	203	51	83	1213	0.167	203	145	0.3	0.2	3.564	A



<b>E</b>											
<b>Bar S</b>	218	55	4	1289	0.169	219	283	0.3	0.2	3.365	A
<b>Fleet</b>	64	16	157	913	0.070	64	66	0.1	0.1	4.240	A
<b>Site</b>	20	5	208	645	0.031	20	13	0.0	0.0	5.761	A

## 17:30 - 17:45

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>Bar E</b>	170	43	69	1224	0.139	170	121	0.2	0.2	3.420	A
<b>Bar S</b>	183	46	3	1290	0.142	183	237	0.2	0.2	3.255	A
<b>Fleet</b>	53	13	131	926	0.058	54	55	0.1	0.1	4.125	A
<b>Site</b>	17	4	174	658	0.025	17	11	0.0	0.0	5.610	A

# 2024 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	4.14	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	118	100.000
Bar S		ONE HOUR	✓	289	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	116	2	0
	Bar S	217	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
Bar E	0	58	100	0	

From	Bar S	32	0	50	100
	Fleet	0	55	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.13	4.12	0.1	A	108	162
Bar S	0.26	3.94	0.3	A	265	398
Fleet	0.04	4.39	0.0	A	29	44
Site	0.04	5.98	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	89	22	38	1015	0.087	88	163	0.0	0.1	3.882	A
Bar S	218	54	1	1233	0.177	217	125	0.0	0.2	3.540	A
Fleet	24	6	178	898	0.027	24	40	0.0	0.0	4.121	A
Site	15	4	187	657	0.023	15	15	0.0	0.0	5.609	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	106	27	46	1010	0.105	106	196	0.1	0.1	3.980	A
Bar S	260	65	2	1232	0.211	260	150	0.2	0.3	3.700	A
Fleet	29	7	213	880	0.033	29	49	0.0	0.0	4.230	A
Site	18	4	224	643	0.028	18	18	0.0	0.0	5.762	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	130	32	56	1004	0.129	130	240	0.1	0.1	4.120	A
Bar S	318	80	2	1232	0.258	318	184	0.3	0.3	3.937	A
Fleet	35	9	261	856	0.041	35	59	0.0	0.0	4.388	A
Site	22	6	274	624	0.035	22	22	0.0	0.0	5.984	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	130	32	56	1004	0.129	130	240	0.1	0.1	4.120	A
Bar S	318	80	2	1232	0.258	318	184	0.3	0.3	3.939	A
Fleet	35	9	261	855	0.041	35	59	0.0	0.0	4.388	A
Site	22	6	274	623	0.035	22	22	0.0	0.0	5.985	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	106	27	46	1010	0.105	106	196	0.1	0.1	3.983	A
Bar S	260	65	2	1232	0.211	260	150	0.3	0.3	3.702	A
Fleet	29	7	213	880	0.033	29	49	0.0	0.0	4.233	A
Site	18	4	224	643	0.028	18	18	0.0	0.0	5.766	A

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	89	22	38	1015	0.088	89	164	0.1	0.1	3.886	A
Bar S	218	54	2	1233	0.177	218	126	0.3	0.2	3.549	A
Fleet	24	6	179	897	0.027	24	41	0.0	0.0	4.123	A
Site	15	4	188	656	0.023	15	15	0.0	0.0	5.615	A

# 2024 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.82	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	206	100.000
Bar S		ONE HOUR	✓	238	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	1	202	3	0
	Bar S	152	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
Bar E	0	28	67	0	

From	Bar S	35	0	14	100
	Fleet	33	53	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.19	3.67	0.2	A	189	284
Bar S	0.20	3.46	0.3	A	218	328
Fleet	0.09	4.39	0.1	A	65	98
Site	0.04	5.95	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	155	39	69	1233	0.126	155	117	0.0	0.1	3.336	A
Bar S	179	45	3	1303	0.138	179	220	0.0	0.2	3.201	A
Fleet	53	13	127	929	0.058	53	55	0.0	0.1	4.108	A
Site	17	4	169	661	0.025	16	11	0.0	0.0	5.587	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	185	46	83	1222	0.152	185	140	0.1	0.2	3.469	A
Bar S	214	53	4	1302	0.164	214	264	0.2	0.2	3.307	A
Fleet	64	16	152	916	0.070	64	66	0.1	0.1	4.222	A
Site	20	5	203	648	0.031	20	13	0.0	0.0	5.733	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	227	57	101	1208	0.188	227	172	0.2	0.2	3.667	A
Bar S	262	66	4	1302	0.201	262	323	0.2	0.3	3.461	A
Fleet	78	20	186	899	0.087	78	80	0.1	0.1	4.387	A
Site	24	6	249	630	0.038	24	15	0.0	0.0	5.946	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	227	57	101	1208	0.188	227	172	0.2	0.2	3.667	A
Bar S	262	66	4	1302	0.201	262	324	0.3	0.3	3.461	A
Fleet	78	20	186	899	0.087	78	80	0.1	0.1	4.387	A
Site	24	6	249	629	0.038	24	15	0.0	0.0	5.947	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	185	46	83	1222	0.152	185	140	0.2	0.2	3.471	A
Bar S	214	53	4	1302	0.164	214	265	0.3	0.2	3.308	A
Fleet	64	16	152	916	0.070	64	66	0.1	0.1	4.226	A
Site	20	5	203	647	0.031	20	13	0.0	0.0	5.735	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	155	39	69	1233	0.126	155	118	0.2	0.1	3.341	A
Bar S	179	45	3	1303	0.138	179	222	0.2	0.2	3.204	A
Fleet	53	13	127	929	0.058	54	55	0.1	0.1	4.113	A
Site	17	4	170	661	0.025	17	11	0.0	0.0	5.592	A

# 2024 + WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	4.21	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2024 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	125	100.000
Bar S		ONE HOUR	✓	296	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	123	2	0
	Bar S	224	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
Bar E	0	59	100	0	



From	Bar S	34	0	50	100
	Fleet	0	55	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.14	4.19	0.2	A	115	172
Bar S	0.27	4.02	0.4	A	272	407
Fleet	0.04	4.42	0.0	A	29	44
Site	0.04	6.03	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	94	24	38	1009	0.093	94	169	0.0	0.1	3.929	A
Bar S	223	56	1	1221	0.183	222	130	0.0	0.2	3.599	A
Fleet	24	6	183	894	0.027	24	40	0.0	0.0	4.139	A
Site	15	4	192	654	0.023	15	15	0.0	0.0	5.635	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	112	28	46	1004	0.112	112	202	0.1	0.1	4.035	A
Bar S	266	67	2	1221	0.218	266	156	0.2	0.3	3.769	A
Fleet	29	7	219	875	0.033	29	49	0.0	0.0	4.252	A
Site	18	4	230	639	0.028	18	18	0.0	0.0	5.794	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	138	34	56	998	0.138	137	247	0.1	0.2	4.185	A
Bar S	326	81	2	1220	0.267	326	191	0.3	0.4	4.023	A
Fleet	35	9	268	850	0.041	35	59	0.0	0.0	4.417	A
Site	22	6	282	619	0.036	22	22	0.0	0.0	6.026	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	138	34	56	998	0.138	138	248	0.2	0.2	4.185	A
Bar S	326	81	2	1220	0.267	326	192	0.4	0.4	4.024	A
Fleet	35	9	269	850	0.041	35	59	0.0	0.0	4.418	A
Site	22	6	282	619	0.036	22	22	0.0	0.0	6.028	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	112	28	46	1004	0.112	113	203	0.2	0.1	4.036	A
Bar S	266	67	2	1221	0.218	266	157	0.4	0.3	3.775	A
Fleet	29	7	220	875	0.033	29	49	0.0	0.0	4.254	A
Site	18	4	230	639	0.028	18	18	0.0	0.0	5.796	A

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	94	24	38	1009	0.093	94	170	0.1	0.1	3.934	A
Bar S	223	56	2	1221	0.183	223	131	0.3	0.2	3.609	A
Fleet	24	6	184	893	0.027	24	41	0.0	0.0	4.143	A
Site	15	4	193	653	0.023	15	15	0.0	0.0	5.638	A

# 2024 + WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.87	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2024 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	223	100.000
Bar S		ONE HOUR	✓	240	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	220	3	0
	Bar S	154	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	29	67	0

From	Bar S	36	0	14	100
	Fleet	33	53	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.20	3.78	0.3	A	205	307
Bar S	0.20	3.49	0.3	A	220	330
Fleet	0.09	4.39	0.1	A	65	98
Site	0.04	5.96	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	168	42	69	1223	0.137	167	118	0.0	0.2	3.409	A
Bar S	181	45	2	1297	0.139	180	234	0.0	0.2	3.223	A
Fleet	53	13	128	928	0.058	53	55	0.0	0.1	4.113	A
Site	17	4	170	660	0.025	16	11	0.0	0.0	5.593	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	200	50	83	1212	0.165	200	141	0.2	0.2	3.557	A
Bar S	216	54	3	1296	0.166	216	280	0.2	0.2	3.331	A
Fleet	64	16	153	915	0.070	64	66	0.1	0.1	4.228	A
Site	20	5	204	647	0.031	20	13	0.0	0.0	5.741	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	246	61	101	1198	0.205	245	173	0.2	0.3	3.778	A
Bar S	264	66	3	1296	0.204	264	343	0.2	0.3	3.489	A
Fleet	78	20	187	897	0.087	78	80	0.1	0.1	4.394	A
Site	24	6	250	629	0.039	24	15	0.0	0.0	5.956	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	246	61	101	1198	0.205	246	173	0.3	0.3	3.778	A
Bar S	264	66	3	1296	0.204	264	344	0.3	0.3	3.489	A
Fleet	78	20	187	897	0.087	78	80	0.1	0.1	4.394	A
Site	24	6	250	628	0.039	24	15	0.0	0.0	5.957	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	200	50	83	1212	0.165	201	141	0.3	0.2	3.562	A
Bar S	216	54	3	1296	0.166	216	281	0.3	0.2	3.332	A
Fleet	64	16	153	915	0.070	64	66	0.1	0.1	4.229	A
Site	20	5	204	647	0.031	20	13	0.0	0.0	5.745	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	168	42	69	1222	0.137	168	118	0.2	0.2	3.414	A
Bar S	181	45	2	1296	0.139	181	235	0.2	0.2	3.229	A
Fleet	53	13	128	928	0.058	54	55	0.1	0.1	4.118	A
Site	17	4	171	660	0.025	17	11	0.0	0.0	5.598	A

# 2024 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	4.25	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	128	100.000
Bar S		ONE HOUR	✓	298	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	126	2	0
	Bar S	226	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site

From	Bar E	0	60	100	0
	Bar S	35	0	50	100
	Fleet	0	55	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.14	4.23	0.2	A	117	176
Bar S	0.27	4.06	0.4	A	273	410
Fleet	0.04	4.43	0.0	A	29	44
Site	0.04	6.04	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	96	24	38	1003	0.096	96	170	0.0	0.1	3.966	A
Bar S	224	56	1	1215	0.185	223	133	0.0	0.2	3.627	A
Fleet	24	6	184	892	0.027	24	40	0.0	0.0	4.145	A
Site	15	4	193	653	0.023	15	15	0.0	0.0	5.644	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	115	29	46	998	0.115	115	204	0.1	0.1	4.075	A
Bar S	268	67	2	1215	0.221	268	159	0.2	0.3	3.801	A
Fleet	29	7	221	874	0.033	29	49	0.0	0.0	4.260	A
Site	18	4	232	638	0.028	18	18	0.0	0.0	5.806	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	141	35	56	992	0.142	141	250	0.1	0.2	4.231	A
Bar S	328	82	2	1214	0.270	328	195	0.3	0.4	4.057	A
Fleet	35	9	271	848	0.042	35	59	0.0	0.0	4.428	A
Site	22	6	284	618	0.036	22	22	0.0	0.0	6.042	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	141	35	56	992	0.142	141	250	0.2	0.2	4.231	A
Bar S	328	82	2	1214	0.270	328	195	0.4	0.4	4.061	A
Fleet	35	9	271	848	0.042	35	59	0.0	0.0	4.429	A
Site	22	6	284	618	0.036	22	22	0.0	0.0	6.043	A

## 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	115	29	46	998	0.115	115	204	0.2	0.1	4.076	A
Bar S	268	67	2	1215	0.221	268	159	0.4	0.3	3.803	A
Fleet	29	7	221	873	0.033	29	49	0.0	0.0	4.262	A
Site	18	4	232	638	0.028	18	18	0.0	0.0	5.810	A

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	96	24	38	1003	0.096	96	171	0.1	0.1	3.972	A
Bar S	224	56	2	1215	0.185	225	133	0.3	0.2	3.637	A
Fleet	24	6	185	892	0.027	24	41	0.0	0.0	4.148	A
Site	15	4	194	652	0.023	15	15	0.0	0.0	5.648	A



# 2024 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.89	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	225	100.000
Bar S		ONE HOUR	✓	243	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	222	3	0
	Bar S	157	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site

From	Bar E	0	29	67	0
	Bar S	37	0	14	100
	Fleet	33	53	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.21	3.79	0.3	A	206	310
Bar S	0.21	3.52	0.3	A	223	334
Fleet	0.09	4.41	0.1	A	65	98
Site	0.04	5.97	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	169	42	69	1223	0.139	169	120	0.0	0.2	3.414	A
Bar S	183	46	2	1290	0.142	182	235	0.0	0.2	3.248	A
Fleet	53	13	130	927	0.058	53	55	0.0	0.1	4.120	A
Site	17	4	172	659	0.025	16	11	0.0	0.0	5.603	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	202	51	83	1212	0.167	202	144	0.2	0.2	3.563	A
Bar S	218	55	3	1290	0.169	218	282	0.2	0.2	3.360	A
Fleet	64	16	155	913	0.070	64	66	0.1	0.1	4.237	A
Site	20	5	207	645	0.031	20	13	0.0	0.0	5.754	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	248	62	101	1198	0.207	247	176	0.2	0.3	3.786	A
Bar S	268	67	3	1289	0.208	267	345	0.2	0.3	3.523	A
Fleet	78	20	190	895	0.087	78	80	0.1	0.1	4.406	A
Site	24	6	253	627	0.039	24	15	0.0	0.0	5.974	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	248	62	101	1198	0.207	248	176	0.3	0.3	3.787	A
Bar S	268	67	3	1289	0.208	268	346	0.3	0.3	3.523	A
Fleet	78	20	190	895	0.087	78	80	0.1	0.1	4.407	A
Site	24	6	253	627	0.039	24	15	0.0	0.0	5.975	A

## 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	202	51	83	1212	0.167	203	144	0.3	0.2	3.568	A
Bar S	218	55	3	1290	0.169	219	283	0.3	0.2	3.361	A
Fleet	64	16	156	913	0.070	64	66	0.1	0.1	4.240	A
Site	20	5	207	645	0.031	20	13	0.0	0.0	5.758	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	169	42	69	1222	0.139	170	121	0.2	0.2	3.419	A
Bar S	183	46	2	1290	0.142	183	237	0.2	0.2	3.252	A
Fleet	53	13	130	926	0.058	54	55	0.1	0.1	4.125	A
Site	17	4	173	659	0.025	17	11	0.0	0.0	5.606	A

# 2031, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	4.11	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	115	100.000
Bar S		ONE HOUR	✓	287	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	113	2	0
	Bar S	215	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	57	100	0
	Bar S	31	0	50	100
	Fleet	0	55	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.13	4.08	0.1	A	106	158
Bar S	0.26	3.90	0.3	A	263	395
Fleet	0.04	4.38	0.0	A	29	44
Site	0.04	5.97	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	87	22	38	1022	0.085	86	162	0.0	0.1	3.846	A
Bar S	216	54	1	1239	0.174	215	123	0.0	0.2	3.513	A
Fleet	24	6	176	899	0.027	24	40	0.0	0.0	4.115	A
Site	15	4	185	658	0.023	15	15	0.0	0.0	5.600	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	103	26	46	1017	0.102	103	194	0.1	0.1	3.941	A
Bar S	258	65	2	1239	0.208	258	147	0.2	0.3	3.670	A
Fleet	29	7	211	881	0.033	29	49	0.0	0.0	4.222	A
Site	18	4	222	644	0.028	18	18	0.0	0.0	5.751	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	127	32	56	1010	0.125	126	238	0.1	0.1	4.076	A
Bar S	316	79	2	1238	0.255	316	180	0.3	0.3	3.902	A
Fleet	35	9	258	858	0.041	35	59	0.0	0.0	4.377	A
Site	22	6	272	625	0.035	22	22	0.0	0.0	5.969	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	127	32	56	1010	0.125	127	238	0.1	0.1	4.076	A
Bar S	316	79	2	1238	0.255	316	181	0.3	0.3	3.903	A
Fleet	35	9	259	857	0.041	35	59	0.0	0.0	4.378	A
Site	22	6	272	625	0.035	22	22	0.0	0.0	5.970	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar	103	26	46	1016	0.102	103	194	0.1	0.1	3.943	A

<b>E</b>											
<b>Bar S</b>	258	65	2	1239	0.208	258	148	0.3	0.3	3.672	A
<b>Fleet</b>	29	7	212	881	0.033	29	49	0.0	0.0	4.225	A
<b>Site</b>	18	4	222	644	0.028	18	18	0.0	0.0	5.753	A

**08:30 - 08:45**

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>Bar E</b>	87	22	38	1021	0.085	87	163	0.1	0.1	3.851	A
<b>Bar S</b>	216	54	2	1239	0.174	216	124	0.3	0.2	3.520	A
<b>Fleet</b>	24	6	177	898	0.027	24	41	0.0	0.0	4.117	A
<b>Site</b>	15	4	186	657	0.023	15	15	0.0	0.0	5.604	A

# 2031, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.81	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	204	100.000
Bar S		ONE HOUR	✓	235	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	1	200	3	0
	Bar S	149	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	28	67	0
	Bar S	34	0	14	100
	Fleet	33	53	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.19	3.66	0.2	A	187	281
Bar S	0.20	3.43	0.2	A	216	323
Fleet	0.09	4.38	0.1	A	65	98
Site	0.04	5.93	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	154	38	69	1233	0.125	153	115	0.0	0.1	3.332	A
Bar S	177	44	3	1309	0.135	176	219	0.0	0.2	3.176	A
Fleet	53	13	125	931	0.057	53	55	0.0	0.1	4.101	A
Site	17	4	167	662	0.025	16	11	0.0	0.0	5.576	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	183	46	83	1222	0.150	183	137	0.1	0.2	3.464	A
Bar S	211	53	4	1309	0.161	211	262	0.2	0.2	3.279	A
Fleet	64	16	149	918	0.070	64	66	0.1	0.1	4.213	A
Site	20	5	200	649	0.030	20	13	0.0	0.0	5.721	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	225	56	101	1208	0.186	224	168	0.2	0.2	3.659	A
Bar S	259	65	4	1308	0.198	259	321	0.2	0.2	3.429	A
Fleet	78	20	183	901	0.087	78	80	0.1	0.1	4.375	A
Site	24	6	245	631	0.038	24	15	0.0	0.0	5.929	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	225	56	101	1208	0.186	225	168	0.2	0.2	3.659	A
Bar S	259	65	4	1308	0.198	259	321	0.2	0.2	3.429	A
Fleet	78	20	183	901	0.087	78	80	0.1	0.1	4.375	A
Site	24	6	246	631	0.038	24	15	0.0	0.0	5.930	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar	183	46	83	1222	0.150	184	138	0.2	0.2	3.465	A



<b>E</b>											
<b>Bar S</b>	211	53	4	1309	0.161	211	263	0.2	0.2	3.280	A
<b>Fleet</b>	64	16	149	918	0.070	64	66	0.1	0.1	4.216	A
<b>Site</b>	20	5	201	649	0.030	20	13	0.0	0.0	5.722	A

## 17:30 - 17:45

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>Bar E</b>	154	38	69	1233	0.125	154	115	0.2	0.1	3.336	A
<b>Bar S</b>	177	44	3	1309	0.135	177	220	0.2	0.2	3.179	A
<b>Fleet</b>	53	13	125	930	0.057	54	55	0.1	0.1	4.106	A
<b>Site</b>	17	4	168	662	0.025	17	11	0.0	0.0	5.582	A

# 2031 + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	4.11	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D21	2031 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	115	100.000
Bar S		ONE HOUR	✓	287	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	113	2	0
	Bar S	215	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	57	100	0
	Bar S	31	0	50	100
	Fleet	0	55	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.13	4.08	0.1	A	106	158
Bar S	0.26	3.90	0.3	A	263	395
Fleet	0.04	4.38	0.0	A	29	44
Site	0.04	5.97	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	87	22	38	1022	0.085	86	162	0.0	0.1	3.846	A
Bar S	216	54	1	1239	0.174	215	123	0.0	0.2	3.513	A
Fleet	24	6	176	899	0.027	24	40	0.0	0.0	4.115	A
Site	15	4	185	658	0.023	15	15	0.0	0.0	5.600	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	103	26	46	1017	0.102	103	194	0.1	0.1	3.941	A
Bar S	258	65	2	1239	0.208	258	147	0.2	0.3	3.670	A
Fleet	29	7	211	881	0.033	29	49	0.0	0.0	4.222	A
Site	18	4	222	644	0.028	18	18	0.0	0.0	5.751	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	127	32	56	1010	0.125	126	238	0.1	0.1	4.076	A
Bar S	316	79	2	1238	0.255	316	180	0.3	0.3	3.902	A
Fleet	35	9	258	858	0.041	35	59	0.0	0.0	4.377	A
Site	22	6	272	625	0.035	22	22	0.0	0.0	5.969	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	127	32	56	1010	0.125	127	238	0.1	0.1	4.076	A
Bar S	316	79	2	1238	0.255	316	181	0.3	0.3	3.903	A
Fleet	35	9	259	857	0.041	35	59	0.0	0.0	4.378	A
Site	22	6	272	625	0.035	22	22	0.0	0.0	5.970	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar	103	26	46	1016	0.102	103	194	0.1	0.1	3.943	A

<b>E</b>											
<b>Bar S</b>	258	65	2	1239	0.208	258	148	0.3	0.3	3.672	A
<b>Fleet</b>	29	7	212	881	0.033	29	49	0.0	0.0	4.225	A
<b>Site</b>	18	4	222	644	0.028	18	18	0.0	0.0	5.753	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>Bar E</b>	87	22	38	1021	0.085	87	163	0.1	0.1	3.851	A
<b>Bar S</b>	216	54	2	1239	0.174	216	124	0.3	0.2	3.520	A
<b>Fleet</b>	24	6	177	898	0.027	24	41	0.0	0.0	4.117	A
<b>Site</b>	15	4	186	657	0.023	15	15	0.0	0.0	5.604	A

# 2031 + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.81	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D22	2031 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	204	100.000
Bar S		ONE HOUR	✓	235	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	1	200	3	0
	Bar S	149	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	28	67	0
	Bar S	34	0	14	100
	Fleet	33	53	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.19	3.66	0.2	A	187	281
Bar S	0.20	3.43	0.2	A	216	323
Fleet	0.09	4.38	0.1	A	65	98
Site	0.04	5.93	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	154	38	69	1233	0.125	153	115	0.0	0.1	3.332	A
Bar S	177	44	3	1309	0.135	176	219	0.0	0.2	3.176	A
Fleet	53	13	125	931	0.057	53	55	0.0	0.1	4.101	A
Site	17	4	167	662	0.025	16	11	0.0	0.0	5.576	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	183	46	83	1222	0.150	183	137	0.1	0.2	3.464	A
Bar S	211	53	4	1309	0.161	211	262	0.2	0.2	3.279	A
Fleet	64	16	149	918	0.070	64	66	0.1	0.1	4.213	A
Site	20	5	200	649	0.030	20	13	0.0	0.0	5.721	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	225	56	101	1208	0.186	224	168	0.2	0.2	3.659	A
Bar S	259	65	4	1308	0.198	259	321	0.2	0.2	3.429	A
Fleet	78	20	183	901	0.087	78	80	0.1	0.1	4.375	A
Site	24	6	245	631	0.038	24	15	0.0	0.0	5.929	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	225	56	101	1208	0.186	225	168	0.2	0.2	3.659	A
Bar S	259	65	4	1308	0.198	259	321	0.2	0.2	3.429	A
Fleet	78	20	183	901	0.087	78	80	0.1	0.1	4.375	A
Site	24	6	246	631	0.038	24	15	0.0	0.0	5.930	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar	183	46	83	1222	0.150	184	138	0.2	0.2	3.465	A

<b>E</b>											
<b>Bar S</b>	211	53	4	1309	0.161	211	263	0.2	0.2	3.280	A
<b>Fleet</b>	64	16	149	918	0.070	64	66	0.1	0.1	4.216	A
<b>Site</b>	20	5	201	649	0.030	20	13	0.0	0.0	5.722	A

## 17:30 - 17:45

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>Bar E</b>	154	38	69	1233	0.125	154	115	0.2	0.1	3.336	A
<b>Bar S</b>	177	44	3	1309	0.135	177	220	0.2	0.2	3.179	A
<b>Fleet</b>	53	13	125	930	0.057	54	55	0.1	0.1	4.106	A
<b>Site</b>	17	4	168	662	0.025	17	11	0.0	0.0	5.582	A

# 2031 + K3 Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	4.14	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D23	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	118	100.000
Bar S		ONE HOUR	✓	289	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	116	2	0
	Bar S	217	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	58	100	0
	Bar S	32	0	50	100
	Fleet	0	55	0	0
	Site	0	100	0	0



## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.13	4.12	0.1	A	108	162
Bar S	0.26	3.94	0.3	A	265	398
Fleet	0.04	4.39	0.0	A	29	44
Site	0.04	5.98	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	89	22	38	1015	0.087	88	163	0.0	0.1	3.882	A
Bar S	218	54	1	1233	0.177	217	125	0.0	0.2	3.540	A
Fleet	24	6	178	898	0.027	24	40	0.0	0.0	4.121	A
Site	15	4	187	657	0.023	15	15	0.0	0.0	5.609	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	106	27	46	1010	0.105	106	196	0.1	0.1	3.980	A
Bar S	260	65	2	1232	0.211	260	150	0.2	0.3	3.700	A
Fleet	29	7	213	880	0.033	29	49	0.0	0.0	4.230	A
Site	18	4	224	643	0.028	18	18	0.0	0.0	5.762	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	130	32	56	1004	0.129	130	240	0.1	0.1	4.120	A
Bar S	318	80	2	1232	0.258	318	184	0.3	0.3	3.937	A
Fleet	35	9	261	856	0.041	35	59	0.0	0.0	4.388	A
Site	22	6	274	624	0.035	22	22	0.0	0.0	5.984	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	130	32	56	1004	0.129	130	240	0.1	0.1	4.120	A
Bar S	318	80	2	1232	0.258	318	184	0.3	0.3	3.939	A
Fleet	35	9	261	855	0.041	35	59	0.0	0.0	4.388	A
Site	22	6	274	623	0.035	22	22	0.0	0.0	5.985	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar	106	27	46	1010	0.105	106	196	0.1	0.1	3.983	A

<b>E</b>											
<b>Bar S</b>	260	65	2	1232	0.211	260	150	0.3	0.3	3.702	A
<b>Fleet</b>	29	7	213	880	0.033	29	49	0.0	0.0	4.233	A
<b>Site</b>	18	4	224	643	0.028	18	18	0.0	0.0	5.766	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>Bar E</b>	89	22	38	1015	0.088	89	164	0.1	0.1	3.886	A
<b>Bar S</b>	218	54	2	1233	0.177	218	126	0.3	0.2	3.549	A
<b>Fleet</b>	24	6	179	897	0.027	24	41	0.0	0.0	4.123	A
<b>Site</b>	15	4	188	656	0.023	15	15	0.0	0.0	5.615	A

# 2031 + K3 Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.82	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D24	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	206	100.000
Bar S		ONE HOUR	✓	238	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	1	202	3	0
	Bar S	152	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	28	67	0
	Bar S	35	0	14	100
	Fleet	33	53	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.19	3.67	0.2	A	189	284
Bar S	0.20	3.46	0.3	A	218	328
Fleet	0.09	4.39	0.1	A	65	98
Site	0.04	5.95	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	155	39	69	1233	0.126	155	117	0.0	0.1	3.336	A
Bar S	179	45	3	1303	0.138	179	220	0.0	0.2	3.201	A
Fleet	53	13	127	929	0.058	53	55	0.0	0.1	4.108	A
Site	17	4	169	661	0.025	16	11	0.0	0.0	5.587	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	185	46	83	1222	0.152	185	140	0.1	0.2	3.469	A
Bar S	214	53	4	1302	0.164	214	264	0.2	0.2	3.307	A
Fleet	64	16	152	916	0.070	64	66	0.1	0.1	4.222	A
Site	20	5	203	648	0.031	20	13	0.0	0.0	5.733	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	227	57	101	1208	0.188	227	172	0.2	0.2	3.667	A
Bar S	262	66	4	1302	0.201	262	323	0.2	0.3	3.461	A
Fleet	78	20	186	899	0.087	78	80	0.1	0.1	4.387	A
Site	24	6	249	630	0.038	24	15	0.0	0.0	5.946	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	227	57	101	1208	0.188	227	172	0.2	0.2	3.667	A
Bar S	262	66	4	1302	0.201	262	324	0.3	0.3	3.461	A
Fleet	78	20	186	899	0.087	78	80	0.1	0.1	4.387	A
Site	24	6	249	629	0.038	24	15	0.0	0.0	5.947	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar	185	46	83	1222	0.152	185	140	0.2	0.2	3.471	A

<b>E</b>											
<b>Bar S</b>	214	53	4	1302	0.164	214	265	0.3	0.2	3.308	A
<b>Fleet</b>	64	16	152	916	0.070	64	66	0.1	0.1	4.226	A
<b>Site</b>	20	5	203	647	0.031	20	13	0.0	0.0	5.735	A

## 17:30 - 17:45

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>Bar E</b>	155	39	69	1233	0.126	155	118	0.2	0.1	3.341	A
<b>Bar S</b>	179	45	3	1303	0.138	179	222	0.2	0.2	3.204	A
<b>Fleet</b>	53	13	127	929	0.058	54	55	0.1	0.1	4.113	A
<b>Site</b>	17	4	170	661	0.025	17	11	0.0	0.0	5.592	A

# 2031 + WKN Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	4.21	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D25	2031 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	125	100.000
Bar S		ONE HOUR	✓	296	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	123	2	0
	Bar S	224	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	59	100	0
	Bar S	34	0	50	100
	Fleet	0	55	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.14	4.19	0.2	A	115	172
Bar S	0.27	4.02	0.4	A	272	407
Fleet	0.04	4.42	0.0	A	29	44
Site	0.04	6.03	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	94	24	38	1009	0.093	94	169	0.0	0.1	3.929	A
Bar S	223	56	1	1221	0.183	222	130	0.0	0.2	3.599	A
Fleet	24	6	183	894	0.027	24	40	0.0	0.0	4.139	A
Site	15	4	192	654	0.023	15	15	0.0	0.0	5.635	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	112	28	46	1004	0.112	112	202	0.1	0.1	4.035	A
Bar S	266	67	2	1221	0.218	266	156	0.2	0.3	3.769	A
Fleet	29	7	219	875	0.033	29	49	0.0	0.0	4.252	A
Site	18	4	230	639	0.028	18	18	0.0	0.0	5.794	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	138	34	56	998	0.138	137	247	0.1	0.2	4.185	A
Bar S	326	81	2	1220	0.267	326	191	0.3	0.4	4.023	A
Fleet	35	9	268	850	0.041	35	59	0.0	0.0	4.417	A
Site	22	6	282	619	0.036	22	22	0.0	0.0	6.026	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	138	34	56	998	0.138	138	248	0.2	0.2	4.185	A
Bar S	326	81	2	1220	0.267	326	192	0.4	0.4	4.024	A
Fleet	35	9	269	850	0.041	35	59	0.0	0.0	4.418	A
Site	22	6	282	619	0.036	22	22	0.0	0.0	6.028	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar	112	28	46	1004	0.112	113	203	0.2	0.1	4.036	A

<b>E</b>											
<b>Bar S</b>	266	67	2	1221	0.218	266	157	0.4	0.3	3.775	A
<b>Fleet</b>	29	7	220	875	0.033	29	49	0.0	0.0	4.254	A
<b>Site</b>	18	4	230	639	0.028	18	18	0.0	0.0	5.796	A

**08:30 - 08:45**

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>Bar E</b>	94	24	38	1009	0.093	94	170	0.1	0.1	3.934	A
<b>Bar S</b>	223	56	2	1221	0.183	223	131	0.3	0.2	3.609	A
<b>Fleet</b>	24	6	184	893	0.027	24	41	0.0	0.0	4.143	A
<b>Site</b>	15	4	193	653	0.023	15	15	0.0	0.0	5.638	A



# 2031 + WKN Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.87	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D26	2031 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	224	100.000
Bar S		ONE HOUR	✓	240	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	1	220	3	0
	Bar S	154	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	29	67	0
	Bar S	36	0	14	100
	Fleet	33	53	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.21	3.78	0.3	A	206	308
Bar S	0.20	3.49	0.3	A	220	330
Fleet	0.09	4.40	0.1	A	65	98
Site	0.04	5.96	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	169	42	69	1224	0.138	168	119	0.0	0.2	3.407	A
Bar S	181	45	3	1296	0.139	180	234	0.0	0.2	3.224	A
Fleet	53	13	128	928	0.058	53	55	0.0	0.1	4.114	A
Site	17	4	171	660	0.025	16	11	0.0	0.0	5.594	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	201	50	83	1213	0.166	201	142	0.2	0.2	3.556	A
Bar S	216	54	4	1296	0.167	216	280	0.2	0.2	3.332	A
Fleet	64	16	154	915	0.070	64	66	0.1	0.1	4.229	A
Site	20	5	205	646	0.031	20	13	0.0	0.0	5.743	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	247	62	101	1199	0.206	246	174	0.2	0.3	3.777	A
Bar S	264	66	4	1295	0.204	264	343	0.2	0.3	3.491	A
Fleet	78	20	188	897	0.087	78	80	0.1	0.1	4.396	A
Site	24	6	251	628	0.039	24	15	0.0	0.0	5.959	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	247	62	101	1199	0.206	247	174	0.3	0.3	3.778	A
Bar S	264	66	4	1295	0.204	264	344	0.3	0.3	3.491	A
Fleet	78	20	188	897	0.087	78	80	0.1	0.1	4.397	A
Site	24	6	251	628	0.039	24	15	0.0	0.0	5.960	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar	201	50	83	1213	0.166	202	142	0.3	0.2	3.561	A

<b>E</b>											
<b>Bar S</b>	216	54	4	1296	0.167	216	281	0.3	0.2	3.333	A
<b>Fleet</b>	64	16	154	915	0.070	64	66	0.1	0.1	4.231	A
<b>Site</b>	20	5	205	646	0.031	20	13	0.0	0.0	5.745	A

## 17:30 - 17:45

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>Bar E</b>	169	42	69	1224	0.138	169	119	0.2	0.2	3.412	A
<b>Bar S</b>	181	45	3	1296	0.139	181	235	0.2	0.2	3.230	A
<b>Fleet</b>	53	13	129	928	0.058	54	55	0.1	0.1	4.119	A
<b>Site</b>	17	4	172	660	0.025	17	11	0.0	0.0	5.598	A

# 2031 + K3 and WKN Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	4.25	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D27	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	128	100.000
Bar S		ONE HOUR	✓	298	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	126	2	0
	Bar S	226	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	60	100	0
	Bar S	35	0	50	100
	Fleet	0	55	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.14	4.23	0.2	A	117	176
Bar S	0.27	4.06	0.4	A	273	410
Fleet	0.04	4.43	0.0	A	29	44
Site	0.04	6.04	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	96	24	38	1003	0.096	96	170	0.0	0.1	3.966	A
Bar S	224	56	1	1215	0.185	223	133	0.0	0.2	3.627	A
Fleet	24	6	184	892	0.027	24	40	0.0	0.0	4.145	A
Site	15	4	193	653	0.023	15	15	0.0	0.0	5.644	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	115	29	46	998	0.115	115	204	0.1	0.1	4.075	A
Bar S	268	67	2	1215	0.221	268	159	0.2	0.3	3.801	A
Fleet	29	7	221	874	0.033	29	49	0.0	0.0	4.260	A
Site	18	4	232	638	0.028	18	18	0.0	0.0	5.806	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	141	35	56	992	0.142	141	250	0.1	0.2	4.231	A
Bar S	328	82	2	1214	0.270	328	195	0.3	0.4	4.057	A
Fleet	35	9	271	848	0.042	35	59	0.0	0.0	4.428	A
Site	22	6	284	618	0.036	22	22	0.0	0.0	6.042	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	141	35	56	992	0.142	141	250	0.2	0.2	4.231	A
Bar S	328	82	2	1214	0.270	328	195	0.4	0.4	4.061	A
Fleet	35	9	271	848	0.042	35	59	0.0	0.0	4.429	A
Site	22	6	284	618	0.036	22	22	0.0	0.0	6.043	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar	115	29	46	998	0.115	115	204	0.2	0.1	4.076	A

<b>E</b>											
<b>Bar S</b>	268	67	2	1215	0.221	268	159	0.4	0.3	3.803	A
<b>Fleet</b>	29	7	221	873	0.033	29	49	0.0	0.0	4.262	A
<b>Site</b>	18	4	232	638	0.028	18	18	0.0	0.0	5.810	A

**08:30 - 08:45**

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>Bar E</b>	96	24	38	1003	0.096	96	171	0.1	0.1	3.972	A
<b>Bar S</b>	224	56	2	1215	0.185	225	133	0.3	0.2	3.637	A
<b>Fleet</b>	24	6	185	892	0.027	24	41	0.0	0.0	4.148	A
<b>Site</b>	15	4	194	652	0.023	15	15	0.0	0.0	5.648	A

# 2031 + K3 and WKN Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.89	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D28	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	226	100.000
Bar S		ONE HOUR	✓	243	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	1	222	3	0
	Bar S	157	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	29	67	0
	Bar S	37	0	14	100
	Fleet	33	53	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.21	3.79	0.3	A	207	311
Bar S	0.21	3.52	0.3	A	223	334
Fleet	0.09	4.41	0.1	A	65	98
Site	0.04	5.98	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	170	43	69	1224	0.139	170	121	0.0	0.2	3.412	A
Bar S	183	46	3	1290	0.142	182	235	0.0	0.2	3.249	A
Fleet	53	13	131	926	0.058	53	55	0.0	0.1	4.121	A
Site	17	4	173	659	0.025	16	11	0.0	0.0	5.605	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	203	51	83	1213	0.167	203	145	0.2	0.2	3.562	A
Bar S	218	55	4	1289	0.169	218	282	0.2	0.2	3.361	A
Fleet	64	16	156	913	0.070	64	66	0.1	0.1	4.239	A
Site	20	5	208	645	0.031	20	13	0.0	0.0	5.756	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	249	62	101	1199	0.207	249	177	0.2	0.3	3.786	A
Bar S	268	67	4	1289	0.208	267	345	0.2	0.3	3.525	A
Fleet	78	20	191	895	0.087	78	80	0.1	0.1	4.409	A
Site	24	6	254	626	0.039	24	15	0.0	0.0	5.977	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	249	62	101	1199	0.207	249	177	0.3	0.3	3.786	A
Bar S	268	67	4	1289	0.208	268	346	0.3	0.3	3.525	A
Fleet	78	20	192	895	0.087	78	80	0.1	0.1	4.409	A
Site	24	6	254	626	0.039	24	15	0.0	0.0	5.978	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar	203	51	83	1213	0.167	203	145	0.3	0.2	3.564	A



<b>E</b>											
<b>Bar S</b>	218	55	4	1289	0.169	219	283	0.3	0.2	3.365	A
<b>Fleet</b>	64	16	157	913	0.070	64	66	0.1	0.1	4.240	A
<b>Site</b>	20	5	208	645	0.031	20	13	0.0	0.0	5.761	A

## 17:30 - 17:45

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>Bar E</b>	170	43	69	1224	0.139	170	121	0.2	0.2	3.420	A
<b>Bar S</b>	183	46	3	1290	0.142	183	237	0.2	0.2	3.255	A
<b>Fleet</b>	53	13	131	926	0.058	54	55	0.1	0.1	4.125	A
<b>Site</b>	17	4	174	658	0.025	17	11	0.0	0.0	5.610	A

# 2031 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	4.14	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D29	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	118	100.000
Bar S		ONE HOUR	✓	289	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	116	2	0
	Bar S	217	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
Bar E	0	58	100	0	

From	Bar S	32	0	50	100
	Fleet	0	55	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.13	4.12	0.1	A	108	162
Bar S	0.26	3.94	0.3	A	265	398
Fleet	0.04	4.39	0.0	A	29	44
Site	0.04	5.98	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	89	22	38	1015	0.087	88	163	0.0	0.1	3.882	A
Bar S	218	54	1	1233	0.177	217	125	0.0	0.2	3.540	A
Fleet	24	6	178	898	0.027	24	40	0.0	0.0	4.121	A
Site	15	4	187	657	0.023	15	15	0.0	0.0	5.609	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	106	27	46	1010	0.105	106	196	0.1	0.1	3.980	A
Bar S	260	65	2	1232	0.211	260	150	0.2	0.3	3.700	A
Fleet	29	7	213	880	0.033	29	49	0.0	0.0	4.230	A
Site	18	4	224	643	0.028	18	18	0.0	0.0	5.762	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	130	32	56	1004	0.129	130	240	0.1	0.1	4.120	A
Bar S	318	80	2	1232	0.258	318	184	0.3	0.3	3.937	A
Fleet	35	9	261	856	0.041	35	59	0.0	0.0	4.388	A
Site	22	6	274	624	0.035	22	22	0.0	0.0	5.984	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	130	32	56	1004	0.129	130	240	0.1	0.1	4.120	A
Bar S	318	80	2	1232	0.258	318	184	0.3	0.3	3.939	A
Fleet	35	9	261	855	0.041	35	59	0.0	0.0	4.388	A
Site	22	6	274	623	0.035	22	22	0.0	0.0	5.985	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	106	27	46	1010	0.105	106	196	0.1	0.1	3.983	A
Bar S	260	65	2	1232	0.211	260	150	0.3	0.3	3.702	A
Fleet	29	7	213	880	0.033	29	49	0.0	0.0	4.233	A
Site	18	4	224	643	0.028	18	18	0.0	0.0	5.766	A

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	89	22	38	1015	0.088	89	164	0.1	0.1	3.886	A
Bar S	218	54	2	1233	0.177	218	126	0.3	0.2	3.549	A
Fleet	24	6	179	897	0.027	24	41	0.0	0.0	4.123	A
Site	15	4	188	656	0.023	15	15	0.0	0.0	5.615	A

# 2031 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.82	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D30	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	206	100.000
Bar S		ONE HOUR	✓	238	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	1	202	3	0
	Bar S	152	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
Bar E	0	28	67	0	0

From	Bar S	35	0	14	100
	Fleet	33	53	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.19	3.67	0.2	A	189	284
Bar S	0.20	3.46	0.3	A	218	328
Fleet	0.09	4.39	0.1	A	65	98
Site	0.04	5.95	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	155	39	69	1233	0.126	155	117	0.0	0.1	3.336	A
Bar S	179	45	3	1303	0.138	179	220	0.0	0.2	3.201	A
Fleet	53	13	127	929	0.058	53	55	0.0	0.1	4.108	A
Site	17	4	169	661	0.025	16	11	0.0	0.0	5.587	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	185	46	83	1222	0.152	185	140	0.1	0.2	3.469	A
Bar S	214	53	4	1302	0.164	214	264	0.2	0.2	3.307	A
Fleet	64	16	152	916	0.070	64	66	0.1	0.1	4.222	A
Site	20	5	203	648	0.031	20	13	0.0	0.0	5.733	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	227	57	101	1208	0.188	227	172	0.2	0.2	3.667	A
Bar S	262	66	4	1302	0.201	262	323	0.2	0.3	3.461	A
Fleet	78	20	186	899	0.087	78	80	0.1	0.1	4.387	A
Site	24	6	249	630	0.038	24	15	0.0	0.0	5.946	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	227	57	101	1208	0.188	227	172	0.2	0.2	3.667	A
Bar S	262	66	4	1302	0.201	262	324	0.3	0.3	3.461	A
Fleet	78	20	186	899	0.087	78	80	0.1	0.1	4.387	A
Site	24	6	249	629	0.038	24	15	0.0	0.0	5.947	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	185	46	83	1222	0.152	185	140	0.2	0.2	3.471	A
Bar S	214	53	4	1302	0.164	214	265	0.3	0.2	3.308	A
Fleet	64	16	152	916	0.070	64	66	0.1	0.1	4.226	A
Site	20	5	203	647	0.031	20	13	0.0	0.0	5.735	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	155	39	69	1233	0.126	155	118	0.2	0.1	3.341	A
Bar S	179	45	3	1303	0.138	179	222	0.2	0.2	3.204	A
Fleet	53	13	127	929	0.058	54	55	0.1	0.1	4.113	A
Site	17	4	170	661	0.025	17	11	0.0	0.0	5.592	A

# 2031 + WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	4.21	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D31	2031 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	125	100.000
Bar S		ONE HOUR	✓	296	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	123	2	0
	Bar S	224	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	59	100	0



From	Bar S	34	0	50	100
	Fleet	0	55	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.14	4.19	0.2	A	115	172
Bar S	0.27	4.02	0.4	A	272	407
Fleet	0.04	4.42	0.0	A	29	44
Site	0.04	6.03	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	94	24	38	1009	0.093	94	169	0.0	0.1	3.929	A
Bar S	223	56	1	1221	0.183	222	130	0.0	0.2	3.599	A
Fleet	24	6	183	894	0.027	24	40	0.0	0.0	4.139	A
Site	15	4	192	654	0.023	15	15	0.0	0.0	5.635	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	112	28	46	1004	0.112	112	202	0.1	0.1	4.035	A
Bar S	266	67	2	1221	0.218	266	156	0.2	0.3	3.769	A
Fleet	29	7	219	875	0.033	29	49	0.0	0.0	4.252	A
Site	18	4	230	639	0.028	18	18	0.0	0.0	5.794	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	138	34	56	998	0.138	137	247	0.1	0.2	4.185	A
Bar S	326	81	2	1220	0.267	326	191	0.3	0.4	4.023	A
Fleet	35	9	268	850	0.041	35	59	0.0	0.0	4.417	A
Site	22	6	282	619	0.036	22	22	0.0	0.0	6.026	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	138	34	56	998	0.138	138	248	0.2	0.2	4.185	A
Bar S	326	81	2	1220	0.267	326	192	0.4	0.4	4.024	A
Fleet	35	9	269	850	0.041	35	59	0.0	0.0	4.418	A
Site	22	6	282	619	0.036	22	22	0.0	0.0	6.028	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	112	28	46	1004	0.112	113	203	0.2	0.1	4.036	A
Bar S	266	67	2	1221	0.218	266	157	0.4	0.3	3.775	A
Fleet	29	7	220	875	0.033	29	49	0.0	0.0	4.254	A
Site	18	4	230	639	0.028	18	18	0.0	0.0	5.796	A

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	94	24	38	1009	0.093	94	170	0.1	0.1	3.934	A
Bar S	223	56	2	1221	0.183	223	131	0.3	0.2	3.609	A
Fleet	24	6	184	893	0.027	24	41	0.0	0.0	4.143	A
Site	15	4	193	653	0.023	15	15	0.0	0.0	5.638	A

# 2031 + WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.87	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D32	2031 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	223	100.000
Bar S		ONE HOUR	✓	240	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	220	3	0
	Bar S	154	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	29	67	0

From	Bar S	36	0	14	100
	Fleet	33	53	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.20	3.78	0.3	A	205	307
Bar S	0.20	3.49	0.3	A	220	330
Fleet	0.09	4.39	0.1	A	65	98
Site	0.04	5.96	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	168	42	69	1223	0.137	167	118	0.0	0.2	3.409	A
Bar S	181	45	2	1297	0.139	180	234	0.0	0.2	3.223	A
Fleet	53	13	128	928	0.058	53	55	0.0	0.1	4.113	A
Site	17	4	170	660	0.025	16	11	0.0	0.0	5.593	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	200	50	83	1212	0.165	200	141	0.2	0.2	3.557	A
Bar S	216	54	3	1296	0.166	216	280	0.2	0.2	3.331	A
Fleet	64	16	153	915	0.070	64	66	0.1	0.1	4.228	A
Site	20	5	204	647	0.031	20	13	0.0	0.0	5.741	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	246	61	101	1198	0.205	245	173	0.2	0.3	3.778	A
Bar S	264	66	3	1296	0.204	264	343	0.2	0.3	3.489	A
Fleet	78	20	187	897	0.087	78	80	0.1	0.1	4.394	A
Site	24	6	250	629	0.039	24	15	0.0	0.0	5.956	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	246	61	101	1198	0.205	246	173	0.3	0.3	3.778	A
Bar S	264	66	3	1296	0.204	264	344	0.3	0.3	3.489	A
Fleet	78	20	187	897	0.087	78	80	0.1	0.1	4.394	A
Site	24	6	250	628	0.039	24	15	0.0	0.0	5.957	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	200	50	83	1212	0.165	201	141	0.3	0.2	3.562	A
Bar S	216	54	3	1296	0.166	216	281	0.3	0.2	3.332	A
Fleet	64	16	153	915	0.070	64	66	0.1	0.1	4.229	A
Site	20	5	204	647	0.031	20	13	0.0	0.0	5.745	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	168	42	69	1222	0.137	168	118	0.2	0.2	3.414	A
Bar S	181	45	2	1296	0.139	181	235	0.2	0.2	3.229	A
Fleet	53	13	128	928	0.058	54	55	0.1	0.1	4.118	A
Site	17	4	171	660	0.025	17	11	0.0	0.0	5.598	A

# 2031 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	4.25	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D33	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	128	100.000
Bar S		ONE HOUR	✓	298	100.000
Fleet		ONE HOUR	✓	32	100.000
Site		ONE HOUR	✓	20	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	0	126	2	0
	Bar S	226	0	52	20
	Fleet	1	31	0	0
	Site	0	20	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site

From	Bar E	0	60	100	0
	Bar S	35	0	50	100
	Fleet	0	55	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.14	4.23	0.2	A	117	176
Bar S	0.27	4.06	0.4	A	273	410
Fleet	0.04	4.43	0.0	A	29	44
Site	0.04	6.04	0.0	A	18	28

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	96	24	38	1003	0.096	96	170	0.0	0.1	3.966	A
Bar S	224	56	1	1215	0.185	223	133	0.0	0.2	3.627	A
Fleet	24	6	184	892	0.027	24	40	0.0	0.0	4.145	A
Site	15	4	193	653	0.023	15	15	0.0	0.0	5.644	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	115	29	46	998	0.115	115	204	0.1	0.1	4.075	A
Bar S	268	67	2	1215	0.221	268	159	0.2	0.3	3.801	A
Fleet	29	7	221	874	0.033	29	49	0.0	0.0	4.260	A
Site	18	4	232	638	0.028	18	18	0.0	0.0	5.806	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	141	35	56	992	0.142	141	250	0.1	0.2	4.231	A
Bar S	328	82	2	1214	0.270	328	195	0.3	0.4	4.057	A
Fleet	35	9	271	848	0.042	35	59	0.0	0.0	4.428	A
Site	22	6	284	618	0.036	22	22	0.0	0.0	6.042	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	141	35	56	992	0.142	141	250	0.2	0.2	4.231	A
Bar S	328	82	2	1214	0.270	328	195	0.4	0.4	4.061	A
Fleet	35	9	271	848	0.042	35	59	0.0	0.0	4.429	A
Site	22	6	284	618	0.036	22	22	0.0	0.0	6.043	A

## 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	115	29	46	998	0.115	115	204	0.2	0.1	4.076	A
Bar S	268	67	2	1215	0.221	268	159	0.4	0.3	3.803	A
Fleet	29	7	221	873	0.033	29	49	0.0	0.0	4.262	A
Site	18	4	232	638	0.028	18	18	0.0	0.0	5.810	A

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	96	24	38	1003	0.096	96	171	0.1	0.1	3.972	A
Bar S	224	56	2	1215	0.185	225	133	0.3	0.2	3.637	A
Fleet	24	6	185	892	0.027	24	41	0.0	0.0	4.148	A
Site	15	4	194	652	0.023	15	15	0.0	0.0	5.648	A



# 2031 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Bar E, Bar S, Fleet, Site	3.89	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D34	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Bar E		ONE HOUR	✓	226	100.000
Bar S		ONE HOUR	✓	243	100.000
Fleet		ONE HOUR	✓	71	100.000
Site		ONE HOUR	✓	22	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Bar E	Bar S	Fleet	Site
From	Bar E	1	222	3	0
	Bar S	157	2	70	14
	Fleet	3	68	0	0
	Site	0	22	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Bar E	Bar S	Fleet	Site

From	Bar E	0	29	67	0
	Bar S	37	0	14	100
	Fleet	33	53	0	0
	Site	0	100	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Bar E	0.21	3.79	0.3	A	207	311
Bar S	0.21	3.52	0.3	A	223	334
Fleet	0.09	4.41	0.1	A	65	98
Site	0.04	5.98	0.0	A	20	30

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	170	43	69	1224	0.139	170	121	0.0	0.2	3.412	A
Bar S	183	46	3	1290	0.142	182	235	0.0	0.2	3.249	A
Fleet	53	13	131	926	0.058	53	55	0.0	0.1	4.121	A
Site	17	4	173	659	0.025	16	11	0.0	0.0	5.605	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	203	51	83	1213	0.167	203	145	0.2	0.2	3.562	A
Bar S	218	55	4	1289	0.169	218	282	0.2	0.2	3.361	A
Fleet	64	16	156	913	0.070	64	66	0.1	0.1	4.239	A
Site	20	5	208	645	0.031	20	13	0.0	0.0	5.756	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	249	62	101	1199	0.207	249	177	0.2	0.3	3.786	A
Bar S	268	67	4	1289	0.208	267	345	0.2	0.3	3.525	A
Fleet	78	20	191	895	0.087	78	80	0.1	0.1	4.409	A
Site	24	6	254	626	0.039	24	15	0.0	0.0	5.977	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	249	62	101	1199	0.207	249	177	0.3	0.3	3.786	A
Bar S	268	67	4	1289	0.208	268	346	0.3	0.3	3.525	A
Fleet	78	20	192	895	0.087	78	80	0.1	0.1	4.409	A
Site	24	6	254	626	0.039	24	15	0.0	0.0	5.978	A

## 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	203	51	83	1213	0.167	203	145	0.3	0.2	3.564	A
Bar S	218	55	4	1289	0.169	219	283	0.3	0.2	3.365	A
Fleet	64	16	157	913	0.070	64	66	0.1	0.1	4.240	A
Site	20	5	208	645	0.031	20	13	0.0	0.0	5.761	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Bar E	170	43	69	1224	0.139	170	121	0.2	0.2	3.420	A
Bar S	183	46	3	1290	0.142	183	237	0.2	0.2	3.255	A
Fleet	53	13	131	926	0.058	54	55	0.1	0.1	4.125	A
Site	17	4	174	658	0.025	17	11	0.0	0.0	5.610	A

Junctions 9
ARCADY 9 - Roundabout Module
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**Filename:** Swale Way - Barge Way\_FULLLK3.j9  
**Path:** P:\JNY9290 - Kemsley K5\Transport\Arcady\WKN DCO\Swale Way - Barge Way  
**Report generation date:** 08/07/2019 15:13:02

- »2017, AM
- »2017, PM
- »2024, AM
- »2024, PM
- »2024 + Cumulative Development, AM
- »2024 + Cumulative Development, PM
- »2024 + K3 Operational, AM
- »2024 + K3 Operational, PM
- »2024 + K3 and WKN Operational, AM
- »2024 + K3 and WKN Operational, PM
- »2024 + K3 Operational + Cumulative Development, AM
- »2024 + K3 Operational + Cumulative Development, PM
- »2024 + K3 and WKN Operational + Cumulative Development, AM
- »2024 + K3 and WKN Operational + Cumulative Development, PM
- »2031, AM
- »2031, PM
- »2031 + Cumulative Development, AM
- »2031 + Cumulative Development, PM
- »2031 + K3 Operational, AM
- »2031 + K3 Operational, PM
- »2031 + K3 and WKN Operational, AM
- »2031 + K3 and WKN Operational, PM
- »2031 + K3 Operational + Cumulative Development, AM
- »2031 + K3 Operational + Cumulative Development, PM
- »2031 + K3 and WKN Operational + Cumulative Development, AM
- »2031 + K3 and WKN Operational + Cumulative Development, PM

**Summary of junction performance**

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
<b>2017</b>						
Site - Site Access	0.0	0.00	0.00	0.0	0.00	0.00
Swa S - Swale Way South	0.5	3.90	0.32	1.7	6.78	0.64
Swa W - Swale Way West	4.4	13.55	0.82	0.9	4.74	0.46
Barge - Barge Way	0.3	7.43	0.22	0.4	4.75	0.26
<b>2024</b>						
Site - Site Access	0.0	0.00	0.00	0.0	0.00	0.00
Swa S - Swale Way South	0.7	4.77	0.42	4.9	15.74	0.84

Swa W - Swale Way West	67.9	141.81	1.08	1.2	5.92	0.55
Barge - Barge Way	0.6	10.04	0.37	0.6	5.79	0.36
<b>2024 + Cumulative Development</b>						
Site - Site Access	0.0	0.00	0.00	0.0	0.00	0.00
Swa S - Swale Way South	0.7	4.85	0.42	4.9	15.74	0.84
Swa W - Swale Way West	67.9	141.81	1.08	1.2	5.93	0.55
Barge - Barge Way	0.6	10.04	0.37	0.6	5.80	0.36
<b>2024 + K3 Operational</b>						
Site - Site Access	0.0	0.00	0.00	0.0	0.00	0.00
Swa S - Swale Way South	0.7	4.90	0.42	5.4	17.73	0.85
Swa W - Swale Way West	86.2	176.80	1.10	1.3	6.32	0.57
Barge - Barge Way	0.7	10.64	0.40	0.6	6.20	0.39
<b>2024 + K3 and WKN Operational</b>						
Site - Site Access	0.0	0.00	0.00	0.0	0.00	0.00
Swa S - Swale Way South	0.7	4.97	0.43	5.9	19.34	0.86
Swa W - Swale Way West	94.5	202.31	1.12	1.4	6.42	0.58
Barge - Barge Way	0.7	11.03	0.42	0.7	6.46	0.42
<b>2024 + K3 Operational + Cumulative Development</b>						
Site - Site Access	0.0	0.00	0.00	0.0	0.00	0.00
Swa S - Swale Way South	0.7	4.98	0.43	5.4	17.73	0.85
Swa W - Swale Way West	86.2	176.80	1.10	1.3	6.34	0.57
Barge - Barge Way	0.7	10.64	0.40	0.6	6.22	0.39
<b>2024 + K3 and WKN Operational + Cumulative Development</b>						
Site - Site Access	0.0	0.00	0.00	0.0	0.00	0.00
Swa S - Swale Way South	0.8	5.05	0.43	5.9	19.34	0.86
Swa W - Swale Way West	94.5	202.31	1.12	1.4	6.44	0.58
Barge - Barge Way	0.7	11.03	0.42	0.7	6.47	0.42
<b>2031</b>						
Site - Site Access	0.0	0.00	0.00	0.0	0.00	0.00
Swa S - Swale Way South	0.7	4.77	0.42	4.9	15.74	0.84
Swa W - Swale Way West	67.9	141.81	1.08	1.2	5.92	0.55
Barge - Barge Way	0.6	10.04	0.37	0.6	5.79	0.36
<b>2031 + Cumulative Development</b>						
Site - Site Access	0.2	7.83	0.15	0.1	4.92	0.13
Swa S - Swale Way South	0.8	5.16	0.44	6.7	22.16	0.88
Swa W - Swale Way West	139.4	329.14	1.17	1.4	6.43	0.59
Barge - Barge Way	0.6	10.44	0.38	0.6	6.06	0.37
<b>2031 + K3 Operational</b>						
Site - Site Access	0.0	0.00	0.00	0.0	0.00	0.00
Swa S - Swale Way South	0.7	4.90	0.42	5.4	17.73	0.85
Swa W - Swale Way West	86.2	176.80	1.10	1.3	6.32	0.57
Barge - Barge Way	0.7	10.64	0.40	0.6	6.20	0.39
<b>2031 + K3 and WKN Operational</b>						
Site - Site Access	0.0	0.00	0.00	0.0	0.00	0.00
Swa S - Swale Way South	0.7	4.97	0.43	5.9	19.34	0.86
Swa W - Swale Way West	94.5	202.31	1.12	1.4	6.42	0.58
Barge - Barge Way	0.7	11.03	0.42	0.7	6.46	0.42
<b>2031 + K3 Operational + Cumulative Development</b>						
Site - Site Access	0.2	7.91	0.16	0.2	5.09	0.13
Swa S - Swale Way South	0.8	5.30	0.44	7.9	26.00	0.90
Swa W - Swale Way West	160.8	394.03	1.20	1.5	6.89	0.61
Barge - Barge Way	0.7	11.08	0.41	0.7	6.52	0.40
<b>2031 + K3 and WKN Operational + Cumulative Development</b>						
Site - Site Access	0.2	7.99	0.16	0.2	5.21	0.13
Swa S - Swale Way South	0.8	5.39	0.45	8.8	29.27	0.91
Swa W - Swale Way West	170.4	423.98	1.21	1.6	7.01	0.62

Barge - Barge Way	0.8	11.50	0.43	0.7	6.80	0.43
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Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

## File summary

### File Description

Title	(untitled)
Location	
Site number	
Date	08/11/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR\jack.clarke-williams
Description	

## Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

## Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

## Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓
D21	2031 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D22	2031 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D23	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D24	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D27	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D28	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D29	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D30	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D33	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D34	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

### Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

# 2017, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	10.51	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Name	Description
Site	Site Access	
Swa S	Swale Way South	
Swa W	Swale Way West	
Barge	Barge Way	

### Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
Site - Site Access	3.50	6.50	11.0	15.0	45.0	25.0	
Swa S - Swale Way South	3.75	7.00	13.0	23.0	45.5	30.0	
Swa W - Swale Way West	3.75	7.00	10.0	47.5	45.5	30.0	
Barge - Barge Way	3.50	6.50	16.5	23.0	45.5	28.0	

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
Site - Site Access	0.598	1548
Swa S - Swale Way South	0.627	1694
Swa W - Swale Way West	0.628	1665
Barge - Barge Way	0.622	1657

The slope and intercept shown above include any corrections and adjustments.

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00



## Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	400	100.000
Swa W - Swale Way West		ONE HOUR	✓	1107	100.000
Barge - Barge Way		ONE HOUR	✓	127	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	358	41
	Swa W - Swale Way West	0	925	2	180
	Barge - Barge Way	0	34	92	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	15	27
	Swa W - Swale Way West	0	5	50	34
	Barge - Barge Way	0	29	70	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.32	3.90	0.5	A	367	551
Swa W - Swale Way West	0.82	13.55	4.4	B	1016	1524
Barge - Barge Way	0.22	7.43	0.3	A	117	175

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	790	1021	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	301	75	71	1393	0.216	300	718	0.0	0.3	3.290	A
Swa W - Swale Way West	833	208	32	1493	0.558	828	339	0.0	1.2	5.377	A
Barge - Barge Way	96	24	694	759	0.126	95	166	0.0	0.1	5.415	A

**07:30 - 07:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	946	916	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	360	90	85	1380	0.261	359	861	0.3	0.4	3.525	A
Swa W - Swale Way West	995	249	39	1488	0.669	992	406	1.2	2.0	7.210	A
Barge - Barge Way	114	29	832	703	0.162	114	199	0.1	0.2	6.114	A

**07:45 - 08:00**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1153	778	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	104	1363	0.323	440	1049	0.4	0.5	3.898	A
Swa W - Swale Way West	1219	305	47	1482	0.822	1210	497	2.0	4.3	12.778	B
Barge - Barge Way	140	35	1014	628	0.223	139	243	0.2	0.3	7.371	A

**08:00 - 08:15**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1161	773	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	105	1363	0.323	440	1056	0.5	0.5	3.902	A
Swa W - Swale Way West	1219	305	47	1482	0.822	1218	498	4.3	4.4	13.549	B
Barge - Barge Way	140	35	1021	625	0.224	140	244	0.3	0.3	7.426	A

**08:15 - 08:30**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	957	909	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	360	90	86	1380	0.261	360	871	0.5	0.4	3.533	A
Swa W - Swale Way West	995	249	39	1488	0.669	1005	407	4.4	2.1	7.584	A
Barge - Barge Way	114	29	842	698	0.163	115	201	0.3	0.2	6.169	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	797	1016	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	301	75	72	1393	0.216	301	725	0.4	0.3	3.299	A
Swa W - Swale Way West	833	208	32	1493	0.558	837	341	2.1	1.3	5.511	A
Barge - Barge Way	96	24	701	756	0.126	96	168	0.2	0.1	5.452	A

# 2017, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	5.70	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	839	100.000
Swa W - Swale Way West		ONE HOUR	✓	592	100.000
Barge - Barge Way		ONE HOUR	✓	247	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	776	62
	Swa W - Swale Way West	0	454	0	138
	Barge - Barge Way	0	55	192	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	4	13
	Swa W - Swale Way West	0	8	0	36
	Barge - Barge Way	0	22	30	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.64	6.78	1.7	A	770	1155
Swa W - Swale Way West	0.46	4.74	0.9	A	543	815
Barge - Barge Way	0.26	4.75	0.4	A	227	340

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	526	1185	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	632	158	144	1507	0.419	629	382	0.0	0.7	4.088	A
Swa W - Swale Way West	446	111	47	1424	0.313	444	725	0.0	0.5	3.665	A
Barge - Barge Way	186	46	341	1114	0.167	185	150	0.0	0.2	3.874	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	630	1113	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	754	189	172	1484	0.508	753	458	0.7	1.0	4.914	A
Swa W - Swale Way West	532	133	57	1419	0.375	532	869	0.5	0.6	4.055	A
Barge - Barge Way	222	56	409	1078	0.206	222	180	0.2	0.3	4.202	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	772	1016	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	924	231	211	1454	0.635	921	561	1.0	1.7	6.716	A
Swa W - Swale Way West	652	163	69	1411	0.462	651	1063	0.6	0.9	4.731	A
Barge - Barge Way	272	68	500	1030	0.264	272	220	0.3	0.4	4.742	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	773	1015	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	924	231	211	1454	0.635	924	562	1.7	1.7	6.785	A
Swa W - Swale Way West	652	163	69	1411	0.462	652	1066	0.9	0.9	4.742	A
Barge - Barge Way	272	68	501	1030	0.264	272	220	0.4	0.4	4.748	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	632	1112	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	754	189	173	1484	0.508	757	459	1.7	1.0	4.971	A
Swa W - Swale Way West	532	133	57	1419	0.375	533	873	0.9	0.6	4.070	A
Barge - Barge Way	222	56	410	1078	0.206	222	180	0.4	0.3	4.210	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	529	1183	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	632	158	145	1506	0.419	633	384	1.0	0.7	4.129	A
Swa W - Swale Way West	446	111	48	1424	0.313	446	730	0.6	0.5	3.685	A
Barge - Barge Way	186	46	343	1113	0.167	186	151	0.3	0.2	3.886	A

# 2024, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	93.85	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	489	100.000
Swa W - Swale Way West		ONE HOUR	✓	1417	100.000
Barge - Barge Way		ONE HOUR	✓	191	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	442	46
	Swa W - Swale Way West	0	1157	2	258
	Barge - Barge Way	0	50	140	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	18	24
	Swa W - Swale Way West	0	7	50	34
	Barge - Barge Way	0	20	65	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.42	4.77	0.7	A	449	673
Swa W - Swale Way West	1.08	141.81	67.9	F	1300	1950
Barge - Barge Way	0.37	10.04	0.6	B	175	263

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1008	863	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	368	92	107	1336	0.275	367	901	0.0	0.4	3.708	A
Swa W - Swale Way West	1067	267	36	1462	0.730	1056	438	0.0	2.6	8.669	A
Barge - Barge Way	144	36	865	707	0.203	143	228	0.0	0.3	6.365	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1203	730	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	128	1318	0.334	439	1075	0.4	0.5	4.095	A
Swa W - Swale Way West	1274	318	43	1457	0.874	1260	524	2.6	6.1	17.154	C
Barge - Barge Way	172	43	1032	635	0.271	171	272	0.3	0.4	7.759	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1378	607	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	157	1293	0.416	538	1221	0.5	0.7	4.760	A
Swa W - Swale Way West	1560	390	53	1450	1.076	1427	641	6.1	39.3	68.013	F
Barge - Barge Way	210	53	1169	575	0.366	209	312	0.4	0.6	9.827	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1394	597	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	157	1293	0.417	538	1236	0.7	0.7	4.772	A
Swa W - Swale Way West	1560	390	53	1450	1.076	1445	643	39.3	67.9	141.806	F
Barge - Barge Way	210	53	1183	569	0.370	210	315	0.6	0.6	10.042	B

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1348	637	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	129	1317	0.334	440	1218	0.7	0.5	4.110	A
Swa W - Swale Way West	1274	318	43	1457	0.874	1436	526	67.9	27.5	122.843	F
Barge - Barge Way	172	43	1175	572	0.300	172	304	0.6	0.4	9.016	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1098	804	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	368	92	108	1335	0.276	369	990	0.5	0.4	3.728	A
Swa W - Swale Way West	1067	267	36	1462	0.730	1165	441	27.5	2.8	16.331	C
Barge - Barge Way	144	36	954	669	0.215	144	248	0.4	0.3	6.876	A



# 2024, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	10.57	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	1049	100.000
Swa W - Swale Way West		ONE HOUR	✓	678	100.000
Barge - Barge Way		ONE HOUR	✓	315	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	973	75
	Swa W - Swale Way West	0	501	0	177
	Barge - Barge Way	0	57	258	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	0	11	0	40
	Barge - Barge Way	0	21	34	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.84	15.74	4.9	C	963	1444
Swa W - Swale Way West	0.55	5.92	1.2	A	622	933
Barge - Barge Way	0.36	5.79	0.6	A	289	434

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	612	1112	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	193	1453	0.544	785	419	0.0	1.2	5.353	A
Swa W - Swale Way West	510	128	57	1371	0.372	508	921	0.0	0.6	4.163	A
Barge - Barge Way	237	59	376	1061	0.223	236	189	0.0	0.3	4.354	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	733	1025	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	232	1422	0.663	940	502	1.2	1.9	7.418	A
Swa W - Swale Way West	610	152	68	1364	0.447	609	1104	0.6	0.8	4.761	A
Barge - Barge Way	283	71	451	1022	0.277	283	226	0.3	0.4	4.865	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	898	909	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	284	1381	0.836	1144	614	1.9	4.7	14.555	B
Swa W - Swale Way West	746	187	83	1355	0.551	745	1345	0.8	1.2	5.881	A
Barge - Barge Way	347	87	551	970	0.358	346	276	0.4	0.6	5.768	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	899	907	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	284	1381	0.837	1154	615	4.7	4.9	15.744	C
Swa W - Swale Way West	746	187	84	1355	0.551	746	1355	1.2	1.2	5.915	A
Barge - Barge Way	347	87	553	969	0.358	347	277	0.6	0.6	5.785	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	736	1023	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	232	1422	0.663	954	504	4.9	2.0	7.885	A
Swa W - Swale Way West	610	152	69	1363	0.447	611	1118	1.2	0.8	4.796	A
Barge - Barge Way	283	71	452	1021	0.277	284	228	0.6	0.4	4.886	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	616	1109	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	195	1452	0.544	793	422	2.0	1.2	5.491	A
Swa W - Swale Way West	510	128	57	1370	0.372	511	930	0.8	0.6	4.196	A
Barge - Barge Way	237	59	379	1060	0.224	238	190	0.4	0.3	4.379	A

# 2024 + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	93.62	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	491	100.000
Swa W - Swale Way West		ONE HOUR	✓	1417	100.000
Barge - Barge Way		ONE HOUR	✓	191	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	444	46
	Swa W - Swale Way West	0	1157	2	258
	Barge - Barge Way	0	50	140	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	19	24
	Swa W - Swale Way West	0	7	50	34
	Barge - Barge Way	0	20	65	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.42	4.85	0.7	A	451	676
Swa W - Swale Way West	1.08	141.81	67.9	F	1300	1950
Barge - Barge Way	0.37	10.04	0.6	B	175	263

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1008	863	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	370	92	107	1326	0.279	368	901	0.0	0.4	3.750	A
Swa W - Swale Way West	1067	267	36	1462	0.730	1056	439	0.0	2.6	8.668	A
Barge - Barge Way	144	36	865	707	0.203	143	228	0.0	0.3	6.365	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1203	730	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	441	110	128	1308	0.337	441	1075	0.4	0.5	4.151	A
Swa W - Swale Way West	1274	318	43	1457	0.874	1260	526	2.6	6.1	17.154	C
Barge - Barge Way	172	43	1032	635	0.271	171	272	0.3	0.4	7.759	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1378	607	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	541	135	157	1283	0.421	540	1221	0.5	0.7	4.838	A
Swa W - Swale Way West	1560	390	53	1450	1.076	1427	644	6.1	39.3	68.013	F
Barge - Barge Way	210	53	1169	575	0.366	209	312	0.4	0.6	9.827	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1394	597	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	541	135	157	1283	0.421	541	1236	0.7	0.7	4.849	A
Swa W - Swale Way West	1560	390	53	1450	1.076	1445	645	39.3	67.9	141.806	F
Barge - Barge Way	210	53	1183	569	0.370	210	315	0.6	0.6	10.042	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1348	637	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	441	110	129	1307	0.338	442	1218	0.7	0.5	4.168	A
Swa W - Swale Way West	1274	318	43	1457	0.874	1436	528	67.9	27.5	122.843	F
Barge - Barge Way	172	43	1175	572	0.300	172	304	0.6	0.4	9.018	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1098	804	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	370	92	108	1325	0.279	370	990	0.5	0.4	3.773	A
Swa W - Swale Way West	1067	267	36	1462	0.730	1165	442	27.5	2.8	16.331	C
Barge - Barge Way	144	36	954	669	0.215	144	248	0.4	0.3	6.876	A

# 2024 + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	10.57	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	1049	100.000
Swa W - Swale Way West		ONE HOUR	✓	680	100.000
Barge - Barge Way		ONE HOUR	✓	315	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	973	75
	Swa W - Swale Way West	0	503	0	177
	Barge - Barge Way	0	57	258	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	0	11	0	40
	Barge - Barge Way	0	21	34	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.84	15.74	4.9	C	963	1444
Swa W - Swale Way West	0.55	5.93	1.2	A	624	936
Barge - Barge Way	0.36	5.80	0.6	A	289	434

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	614	1111	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	193	1453	0.544	785	420	0.0	1.2	5.353	A
Swa W - Swale Way West	512	128	57	1371	0.373	510	921	0.0	0.6	4.169	A
Barge - Barge Way	237	59	378	1061	0.224	236	189	0.0	0.3	4.359	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	735	1024	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	232	1422	0.663	940	504	1.2	1.9	7.418	A
Swa W - Swale Way West	611	153	68	1364	0.448	610	1104	0.6	0.8	4.770	A
Barge - Barge Way	283	71	452	1021	0.277	283	226	0.3	0.4	4.871	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	900	907	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	284	1381	0.836	1144	616	1.9	4.7	14.555	B
Swa W - Swale Way West	749	187	83	1356	0.552	747	1345	0.8	1.2	5.901	A
Barge - Barge Way	347	87	554	968	0.358	346	276	0.4	0.6	5.779	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	902	906	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	284	1381	0.837	1154	618	4.7	4.9	15.744	C
Swa W - Swale Way West	749	187	84	1355	0.552	749	1355	1.2	1.2	5.934	A
Barge - Barge Way	347	87	555	968	0.358	347	277	0.6	0.6	5.796	A



17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	738	1022	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	232	1422	0.663	954	506	4.9	2.0	7.884	A
Swa W - Swale Way West	611	153	69	1364	0.448	613	1118	1.2	0.8	4.806	A
Barge - Barge Way	283	71	454	1021	0.277	284	228	0.6	0.4	4.892	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	618	1108	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	195	1452	0.544	793	423	2.0	1.2	5.489	A
Swa W - Swale Way West	512	128	57	1371	0.374	513	930	0.8	0.6	4.200	A
Barge - Barge Way	237	59	380	1059	0.224	238	190	0.4	0.3	4.383	A

# 2024 + K3 Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	116.14	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	489	100.000
Swa W - Swale Way West		ONE HOUR	✓	1443	100.000
Barge - Barge Way		ONE HOUR	✓	207	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	442	46
	Swa W - Swale Way West	0	1157	2	284
	Barge - Barge Way	0	50	156	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	18	24
	Swa W - Swale Way West	0	7	50	36
	Barge - Barge Way	0	20	69	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.42	4.90	0.7	A	449	673
Swa W - Swale Way West	1.10	176.80	86.2	F	1324	1986
Barge - Barge Way	0.40	10.64	0.7	B	190	285

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1019	849	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	368	92	119	1323	0.278	367	900	0.0	0.4	3.755	A
Swa W - Swale Way West	1086	272	36	1452	0.748	1075	449	0.0	2.9	9.295	A
Barge - Barge Way	156	39	864	690	0.226	155	247	0.0	0.3	6.715	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1214	714	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	143	1302	0.338	439	1072	0.4	0.5	4.168	A
Swa W - Swale Way West	1297	324	43	1447	0.897	1280	539	2.9	7.2	19.753	C
Barge - Barge Way	186	47	1029	620	0.300	186	294	0.3	0.4	8.280	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1372	601	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	174	1274	0.423	538	1198	0.5	0.7	4.880	A
Swa W - Swale Way West	1589	397	53	1440	1.103	1424	659	7.2	48.4	80.788	F
Barge - Barge Way	228	57	1145	571	0.399	227	332	0.4	0.7	10.448	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1383	593	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	175	1274	0.423	538	1209	0.7	0.7	4.896	A
Swa W - Swale Way West	1589	397	53	1440	1.103	1437	660	48.4	86.2	176.113	F
Barge - Barge Way	228	57	1156	566	0.403	228	335	0.7	0.7	10.641	B

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1336	636	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	144	1301	0.338	440	1193	0.7	0.5	4.186	A
Swa W - Swale Way West	1297	324	43	1447	0.897	1430	541	86.2	53.0	176.804	F
Barge - Barge Way	186	47	1150	569	0.327	187	324	0.7	0.5	9.446	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1190	739	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	368	92	120	1322	0.278	369	1069	0.5	0.4	3.779	A
Swa W - Swale Way West	1086	272	36	1452	0.748	1285	453	53.0	3.2	45.305	E
Barge - Barge Way	156	39	1033	618	0.252	156	288	0.5	0.3	7.811	A

# 2024 + K3 Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	11.56	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	1049	100.000
Swa W - Swale Way West		ONE HOUR	✓	694	100.000
Barge - Barge Way		ONE HOUR	✓	341	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	973	75
	Swa W - Swale Way West	0	501	0	193
	Barge - Barge Way	0	57	284	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	0	11	0	45
	Barge - Barge Way	0	21	36	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.85	17.73	5.4	C	963	1444
Swa W - Swale Way West	0.57	6.32	1.3	A	637	955
Barge - Barge Way	0.39	6.20	0.6	A	313	469

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	632	1094	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	213	1435	0.550	785	419	0.0	1.2	5.498	A
Swa W - Swale Way West	522	131	57	1349	0.387	520	941	0.0	0.6	4.328	A
Barge - Barge Way	257	64	376	1047	0.245	255	201	0.0	0.3	4.541	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	757	1004	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	255	1401	0.673	940	502	1.2	2.0	7.755	A
Swa W - Swale Way West	624	156	68	1343	0.465	623	1127	0.6	0.9	4.995	A
Barge - Barge Way	307	77	451	1008	0.304	306	240	0.3	0.4	5.123	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	926	882	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	312	1355	0.853	1142	614	2.0	5.2	16.076	C
Swa W - Swale Way West	764	191	83	1334	0.573	762	1372	0.9	1.3	6.273	A
Barge - Barge Way	375	94	551	956	0.393	375	294	0.4	0.6	6.180	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	928	881	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	313	1354	0.853	1154	615	5.2	5.4	17.727	C
Swa W - Swale Way West	764	191	84	1334	0.573	764	1383	1.3	1.3	6.318	A
Barge - Barge Way	375	94	553	956	0.393	375	295	0.6	0.6	6.204	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	760	1001	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	256	1400	0.674	956	504	5.4	2.1	8.347	A
Swa W - Swale Way West	624	156	69	1342	0.465	626	1143	1.3	0.9	5.039	A
Barge - Barge Way	307	77	453	1007	0.304	307	242	0.6	0.4	5.148	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	636	1091	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	214	1434	0.551	793	422	2.1	1.2	5.650	A
Swa W - Swale Way West	522	131	57	1349	0.387	523	950	0.9	0.6	4.367	A
Barge - Barge Way	257	64	379	1046	0.246	257	202	0.4	0.3	4.570	A

# 2024 + K3 and WKN Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	132.21	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	489	100.000
Swa W - Swale Way West		ONE HOUR	✓	1452	100.000
Barge - Barge Way		ONE HOUR	✓	216	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	442	46
	Swa W - Swale Way West	0	1157	2	293
	Barge - Barge Way	0	50	165	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	18	24
	Swa W - Swale Way West	0	7	50	38
	Barge - Barge Way	0	20	71	0



## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.43	4.97	0.7	A	449	673
Swa W - Swale Way West	1.12	202.31	94.5	F	1332	1999
Barge - Barge Way	0.42	11.03	0.7	B	198	297

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1025	841	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	368	92	126	1316	0.280	367	900	0.0	0.4	3.784	A
Swa W - Swale Way West	1093	273	36	1445	0.757	1081	456	0.0	3.0	9.616	A
Barge - Barge Way	163	41	864	681	0.239	161	253	0.0	0.3	6.910	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1221	705	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	151	1294	0.340	439	1071	0.4	0.5	4.209	A
Swa W - Swale Way West	1305	326	43	1440	0.907	1286	547	3.0	7.8	21.136	C
Barge - Barge Way	194	49	1027	612	0.317	194	302	0.3	0.5	8.582	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1371	596	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	184	1264	0.426	537	1187	0.5	0.7	4.952	A
Swa W - Swale Way West	1599	400	53	1433	1.115	1419	669	7.8	52.6	86.983	F
Barge - Barge Way	238	59	1134	568	0.419	237	338	0.5	0.7	10.842	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1381	589	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	185	1263	0.426	538	1196	0.7	0.7	4.968	A
Swa W - Swale Way West	1599	400	53	1433	1.115	1431	670	52.6	94.5	192.318	F
Barge - Barge Way	238	59	1143	564	0.422	238	341	0.7	0.7	11.033	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1333	633	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	152	1293	0.340	440	1181	0.7	0.5	4.229	A
Swa W - Swale Way West	1305	326	43	1440	0.907	1425	549	94.5	64.7	202.307	F
Barge - Barge Way	194	49	1138	566	0.343	195	330	0.7	0.5	9.717	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1232	708	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	368	92	127	1315	0.280	369	1105	0.5	0.4	3.806	A
Swa W - Swale Way West	1093	273	36	1445	0.757	1338	460	64.7	3.5	70.181	F
Barge - Barge Way	163	41	1069	595	0.273	163	305	0.5	0.4	8.345	A

# 2024 + K3 and WKN Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	12.30	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	1049	100.000
Swa W - Swale Way West		ONE HOUR	✓	698	100.000
Barge - Barge Way		ONE HOUR	✓	361	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	973	75
	Swa W - Swale Way West	0	501	0	197
	Barge - Barge Way	0	57	304	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	0	11	0	46
	Barge - Barge Way	0	21	36	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.86	19.34	5.9	C	963	1444
Swa W - Swale Way West	0.58	6.42	1.4	A	640	961
Barge - Barge Way	0.42	6.46	0.7	A	331	497

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	646	1082	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	228	1423	0.555	785	419	0.0	1.2	5.601	A
Swa W - Swale Way West	525	131	57	1345	0.391	523	956	0.0	0.6	4.369	A
Barge - Barge Way	272	68	376	1046	0.260	270	204	0.0	0.3	4.634	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	775	989	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	273	1386	0.680	940	502	1.2	2.1	8.000	A
Swa W - Swale Way West	627	157	68	1338	0.469	627	1144	0.6	0.9	5.053	A
Barge - Barge Way	325	81	451	1007	0.322	324	244	0.3	0.5	5.266	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	948	864	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	334	1337	0.864	1141	614	2.1	5.6	17.258	C
Swa W - Swale Way West	769	192	83	1330	0.578	767	1392	0.9	1.3	6.371	A
Barge - Barge Way	397	99	551	955	0.416	397	298	0.5	0.7	6.432	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	950	863	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	335	1336	0.864	1154	615	5.6	5.9	19.340	C
Swa W - Swale Way West	769	192	84	1329	0.578	768	1405	1.3	1.4	6.420	A
Barge - Barge Way	397	99	553	955	0.416	397	299	0.7	0.7	6.461	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	778	987	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	274	1385	0.681	958	504	5.9	2.2	8.702	A
Swa W - Swale Way West	627	157	69	1337	0.469	629	1163	1.4	0.9	5.097	A
Barge - Barge Way	325	81	453	1006	0.323	325	246	0.7	0.5	5.294	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	651	1078	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	229	1421	0.556	793	422	2.2	1.3	5.766	A
Swa W - Swale Way West	525	131	57	1344	0.391	526	965	0.9	0.6	4.407	A
Barge - Barge Way	272	68	379	1044	0.260	272	205	0.5	0.4	4.666	A

# 2024 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	115.86	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	491	100.000
Swa W - Swale Way West		ONE HOUR	✓	1443	100.000
Barge - Barge Way		ONE HOUR	✓	207	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	444	46
	Swa W - Swale Way West	0	1157	2	284
	Barge - Barge Way	0	50	156	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	19	24
	Swa W - Swale Way West	0	7	50	36
	Barge - Barge Way	0	20	69	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.43	4.98	0.7	A	451	676
Swa W - Swale Way West	1.10	176.80	86.2	F	1324	1986
Barge - Barge Way	0.40	10.64	0.7	B	190	285

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1019	849	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	370	92	119	1313	0.281	368	900	0.0	0.4	3.801	A
Swa W - Swale Way West	1086	272	36	1452	0.748	1075	451	0.0	2.9	9.295	A
Barge - Barge Way	156	39	864	690	0.226	155	247	0.0	0.3	6.715	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1214	714	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	441	110	143	1293	0.341	441	1072	0.4	0.5	4.224	A
Swa W - Swale Way West	1297	324	43	1447	0.897	1280	540	2.9	7.2	19.752	C
Barge - Barge Way	186	47	1029	620	0.300	186	294	0.3	0.4	8.280	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1372	601	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	541	135	174	1265	0.427	540	1198	0.5	0.7	4.960	A
Swa W - Swale Way West	1589	397	53	1440	1.103	1424	661	7.2	48.4	80.788	F
Barge - Barge Way	228	57	1145	571	0.399	227	332	0.4	0.7	10.448	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1383	593	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	541	135	175	1264	0.428	541	1209	0.7	0.7	4.976	A
Swa W - Swale Way West	1589	397	53	1440	1.103	1437	663	48.4	86.2	176.112	F
Barge - Barge Way	228	57	1156	566	0.403	228	335	0.7	0.7	10.641	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1336	636	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	441	110	144	1292	0.342	442	1193	0.7	0.5	4.244	A
Swa W - Swale Way West	1297	324	43	1447	0.897	1430	543	86.2	53.0	176.804	F
Barge - Barge Way	186	47	1150	569	0.327	187	324	0.7	0.5	9.446	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1190	739	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	370	92	120	1312	0.282	370	1069	0.5	0.4	3.823	A
Swa W - Swale Way West	1086	272	36	1452	0.748	1285	454	53.0	3.2	45.305	E
Barge - Barge Way	156	39	1033	618	0.252	156	288	0.5	0.3	7.809	A



# 2024 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	11.56	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	1049	100.000
Swa W - Swale Way West		ONE HOUR	✓	696	100.000
Barge - Barge Way		ONE HOUR	✓	341	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	973	75
	Swa W - Swale Way West	0	503	0	193
	Barge - Barge Way	0	57	284	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	0	11	0	45
	Barge - Barge Way	0	21	36	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.85	17.73	5.4	C	963	1444
Swa W - Swale Way West	0.57	6.34	1.3	A	639	958
Barge - Barge Way	0.39	6.22	0.6	A	313	469

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	633	1093	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	213	1435	0.550	785	420	0.0	1.2	5.498	A
Swa W - Swale Way West	524	131	57	1350	0.388	521	941	0.0	0.6	4.334	A
Barge - Barge Way	257	64	378	1046	0.245	255	201	0.0	0.3	4.546	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	759	1003	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	255	1401	0.673	940	504	1.2	2.0	7.755	A
Swa W - Swale Way West	626	156	68	1343	0.466	625	1127	0.6	0.9	5.006	A
Barge - Barge Way	307	77	452	1007	0.304	306	240	0.3	0.4	5.130	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	928	881	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	312	1355	0.853	1142	616	2.0	5.2	16.076	C
Swa W - Swale Way West	766	192	83	1335	0.574	764	1372	0.9	1.3	6.294	A
Barge - Barge Way	375	94	554	955	0.393	375	294	0.4	0.6	6.192	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	930	879	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	313	1354	0.853	1154	618	5.2	5.4	17.727	C
Swa W - Swale Way West	766	192	84	1334	0.574	766	1383	1.3	1.3	6.339	A
Barge - Barge Way	375	94	555	954	0.393	375	295	0.6	0.6	6.216	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	762	1000	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	256	1400	0.674	956	506	5.4	2.1	8.347	A
Swa W - Swale Way West	626	156	69	1342	0.466	628	1143	1.3	0.9	5.048	A
Barge - Barge Way	307	77	454	1006	0.305	307	242	0.6	0.4	5.157	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	637	1090	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	214	1434	0.551	793	423	2.1	1.2	5.650	A
Swa W - Swale Way West	524	131	57	1349	0.388	525	950	0.9	0.6	4.372	A
Barge - Barge Way	257	64	380	1045	0.246	257	202	0.4	0.3	4.575	A

# 2024 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	131.89	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	491	100.000
Swa W - Swale Way West		ONE HOUR	✓	1452	100.000
Barge - Barge Way		ONE HOUR	✓	216	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	444	46
	Swa W - Swale Way West	0	1157	2	293
	Barge - Barge Way	0	50	165	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	19	24
	Swa W - Swale Way West	0	7	50	38
	Barge - Barge Way	0	20	71	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.43	5.05	0.8	A	451	676
Swa W - Swale Way West	1.12	202.31	94.5	F	1332	1999
Barge - Barge Way	0.42	11.03	0.7	B	198	297

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1025	841	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	370	92	126	1306	0.283	368	900	0.0	0.4	3.831	A
Swa W - Swale Way West	1093	273	36	1445	0.757	1081	458	0.0	3.0	9.616	A
Barge - Barge Way	163	41	864	681	0.239	161	253	0.0	0.3	6.910	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1221	705	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	441	110	151	1284	0.344	441	1071	0.4	0.5	4.267	A
Swa W - Swale Way West	1305	326	43	1440	0.907	1286	548	3.0	7.8	21.136	C
Barge - Barge Way	194	49	1027	612	0.317	194	302	0.3	0.5	8.582	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1371	596	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	541	135	184	1254	0.431	540	1187	0.5	0.8	5.034	A
Swa W - Swale Way West	1599	400	53	1433	1.115	1419	671	7.8	52.6	86.982	F
Barge - Barge Way	238	59	1134	568	0.419	237	338	0.5	0.7	10.842	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1381	589	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	541	135	185	1253	0.431	541	1196	0.8	0.8	5.050	A
Swa W - Swale Way West	1599	400	53	1433	1.115	1431	672	52.6	94.5	192.318	F
Barge - Barge Way	238	59	1143	564	0.422	238	341	0.7	0.7	11.033	B

**08:15 - 08:30**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1333	633	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	441	110	152	1283	0.344	442	1181	0.8	0.5	4.287	A
Swa W - Swale Way West	1305	326	43	1440	0.907	1425	551	94.5	64.7	202.307	F
Barge - Barge Way	194	49	1138	566	0.343	195	330	0.7	0.5	9.717	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1232	708	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	370	92	127	1305	0.283	370	1105	0.5	0.4	3.855	A
Swa W - Swale Way West	1093	273	36	1445	0.757	1338	461	64.7	3.5	70.182	F
Barge - Barge Way	163	41	1069	595	0.273	163	305	0.5	0.4	8.345	A

# 2024 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	12.31	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	1049	100.000
Swa W - Swale Way West		ONE HOUR	✓	700	100.000
Barge - Barge Way		ONE HOUR	✓	361	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	973	75
	Swa W - Swale Way West	0	503	0	197
	Barge - Barge Way	0	57	304	0

## Vehicle Mix

### Heavy Vehicle Percentages

From	To			
	Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
Site - Site Access	0	0	0	0
Swa S - Swale Way South	0	0	5	11
Swa W - Swale Way West	0	11	0	46
Barge - Barge Way	0	21	36	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.86	19.34	5.9	C	963	1444
Swa W - Swale Way West	0.58	6.44	1.4	A	642	963
Barge - Barge Way	0.42	6.47	0.7	A	331	497

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	648	1081	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	228	1423	0.555	785	420	0.0	1.2	5.601	A
Swa W - Swale Way West	527	132	57	1345	0.392	524	956	0.0	0.6	4.375	A
Barge - Barge Way	272	68	378	1045	0.260	270	204	0.0	0.3	4.639	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	776	988	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	273	1386	0.680	940	504	1.2	2.1	8.000	A
Swa W - Swale Way West	629	157	68	1338	0.470	628	1144	0.6	0.9	5.062	A
Barge - Barge Way	325	81	452	1006	0.322	324	244	0.3	0.5	5.273	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	950	863	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	334	1337	0.864	1141	616	2.1	5.6	17.258	C
Swa W - Swale Way West	771	193	83	1330	0.579	769	1392	0.9	1.4	6.393	A
Barge - Barge Way	397	99	554	954	0.417	397	298	0.5	0.7	6.445	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	952	861	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	335	1336	0.864	1154	618	5.6	5.9	19.340	C
Swa W - Swale Way West	771	193	84	1329	0.580	771	1405	1.4	1.4	6.442	A
Barge - Barge Way	397	99	555	953	0.417	397	299	0.7	0.7	6.474	A



17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	780	986	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	274	1385	0.681	958	506	5.9	2.2	8.703	A
Swa W - Swale Way West	629	157	69	1338	0.470	631	1163	1.4	0.9	5.108	A
Barge - Barge Way	325	81	454	1005	0.323	325	246	0.7	0.5	5.303	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	652	1077	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	229	1421	0.556	793	423	2.2	1.3	5.766	A
Swa W - Swale Way West	527	132	57	1344	0.392	528	965	0.9	0.6	4.415	A
Barge - Barge Way	272	68	380	1044	0.260	272	205	0.5	0.4	4.671	A

# 2031, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	93.85	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	489	100.000
Swa W - Swale Way West		ONE HOUR	✓	1417	100.000
Barge - Barge Way		ONE HOUR	✓	191	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	442	46
	Swa W - Swale Way West	0	1157	2	258
	Barge - Barge Way	0	50	140	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	18	24
	Swa W - Swale Way West	0	7	50	34
	Barge - Barge Way	0	20	65	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.42	4.77	0.7	A	449	673
Swa W - Swale Way West	1.08	141.81	67.9	F	1300	1950
Barge - Barge Way	0.37	10.04	0.6	B	175	263

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1008	863	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	368	92	107	1336	0.275	367	901	0.0	0.4	3.708	A
Swa W - Swale Way West	1067	267	36	1462	0.730	1056	438	0.0	2.6	8.669	A
Barge - Barge Way	144	36	865	707	0.203	143	228	0.0	0.3	6.365	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1203	730	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	128	1318	0.334	439	1075	0.4	0.5	4.095	A
Swa W - Swale Way West	1274	318	43	1457	0.874	1260	524	2.6	6.1	17.154	C
Barge - Barge Way	172	43	1032	635	0.271	171	272	0.3	0.4	7.759	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1378	607	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	157	1293	0.416	538	1221	0.5	0.7	4.760	A
Swa W - Swale Way West	1560	390	53	1450	1.076	1427	641	6.1	39.3	68.013	F
Barge - Barge Way	210	53	1169	575	0.366	209	312	0.4	0.6	9.827	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1394	597	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	157	1293	0.417	538	1236	0.7	0.7	4.772	A
Swa W - Swale Way West	1560	390	53	1450	1.076	1445	643	39.3	67.9	141.806	F
Barge - Barge Way	210	53	1183	569	0.370	210	315	0.6	0.6	10.042	B

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1348	637	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	129	1317	0.334	440	1218	0.7	0.5	4.110	A
Swa W - Swale Way West	1274	318	43	1457	0.874	1436	526	67.9	27.5	122.843	F
Barge - Barge Way	172	43	1175	572	0.300	172	304	0.6	0.4	9.016	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1098	804	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	368	92	108	1335	0.276	369	990	0.5	0.4	3.728	A
Swa W - Swale Way West	1067	267	36	1462	0.730	1165	441	27.5	2.8	16.331	C
Barge - Barge Way	144	36	954	669	0.215	144	248	0.4	0.3	6.876	A

# 2031, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	10.57	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	1049	100.000
Swa W - Swale Way West		ONE HOUR	✓	678	100.000
Barge - Barge Way		ONE HOUR	✓	315	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	973	75
	Swa W - Swale Way West	0	501	0	177
	Barge - Barge Way	0	57	258	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	0	11	0	40
	Barge - Barge Way	0	21	34	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.84	15.74	4.9	C	963	1444
Swa W - Swale Way West	0.55	5.92	1.2	A	622	933
Barge - Barge Way	0.36	5.79	0.6	A	289	434

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	612	1112	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	193	1453	0.544	785	419	0.0	1.2	5.353	A
Swa W - Swale Way West	510	128	57	1371	0.372	508	921	0.0	0.6	4.163	A
Barge - Barge Way	237	59	376	1061	0.223	236	189	0.0	0.3	4.354	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	733	1025	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	232	1422	0.663	940	502	1.2	1.9	7.418	A
Swa W - Swale Way West	610	152	68	1364	0.447	609	1104	0.6	0.8	4.761	A
Barge - Barge Way	283	71	451	1022	0.277	283	226	0.3	0.4	4.865	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	898	909	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	284	1381	0.836	1144	614	1.9	4.7	14.555	B
Swa W - Swale Way West	746	187	83	1355	0.551	745	1345	0.8	1.2	5.881	A
Barge - Barge Way	347	87	551	970	0.358	346	276	0.4	0.6	5.768	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	899	907	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	284	1381	0.837	1154	615	4.7	4.9	15.744	C
Swa W - Swale Way West	746	187	84	1355	0.551	746	1355	1.2	1.2	5.915	A
Barge - Barge Way	347	87	553	969	0.358	347	277	0.6	0.6	5.785	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	736	1023	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	232	1422	0.663	954	504	4.9	2.0	7.885	A
Swa W - Swale Way West	610	152	69	1363	0.447	611	1118	1.2	0.8	4.796	A
Barge - Barge Way	283	71	452	1021	0.277	284	228	0.6	0.4	4.886	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	616	1109	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	195	1452	0.544	793	422	2.0	1.2	5.491	A
Swa W - Swale Way West	510	128	57	1370	0.372	511	930	0.8	0.6	4.196	A
Barge - Barge Way	237	59	379	1060	0.224	238	190	0.4	0.3	4.379	A

# 2031 + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	213.64	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D21	2031 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	76	100.000
Swa S - Swale Way South		ONE HOUR	✓	492	100.000
Swa W - Swale Way West		ONE HOUR	✓	1546	100.000
Barge - Barge Way		ONE HOUR	✓	191	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	76	0
	Swa S - Swale Way South	1	1	444	46
	Swa W - Swale Way West	128	1158	2	258
	Barge - Barge Way	0	50	140	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	21	0
	Swa S - Swale Way South	0	0	18	24
	Swa W - Swale Way West	11	7	50	34
	Barge - Barge Way	0	20	65	0



## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.15	7.83	0.2	A	70	105
Swa S - Swale Way South	0.44	5.16	0.8	A	451	677
Swa W - Swale Way West	1.17	329.14	139.4	F	1419	2128
Barge - Barge Way	0.38	10.44	0.6	B	175	263

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	57	14	1006	714	0.080	57	96	0.0	0.1	5.475	A
Swa S - Swale Way South	370	93	164	1300	0.285	369	899	0.0	0.4	3.858	A
Swa W - Swale Way West	1164	291	37	1463	0.796	1149	496	0.0	3.7	11.025	B
Barge - Barge Way	144	36	959	665	0.216	143	227	0.0	0.3	6.881	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	68	17	1190	610	0.112	68	113	0.1	0.1	6.642	A
Swa S - Swale Way South	442	111	196	1275	0.347	442	1062	0.4	0.5	4.319	A
Swa W - Swale Way West	1390	347	44	1458	0.953	1357	594	3.7	11.9	28.961	D
Barge - Barge Way	172	43	1132	589	0.291	171	269	0.3	0.4	8.602	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	84	21	1294	546	0.153	83	121	0.1	0.2	7.777	A
Swa S - Swale Way South	542	135	240	1240	0.437	541	1138	0.5	0.8	5.139	A
Swa W - Swale Way West	1702	426	54	1451	1.173	1444	727	11.9	76.4	119.376	F
Barge - Barge Way	210	53	1206	557	0.378	210	293	0.4	0.6	10.336	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	84	21	1299	543	0.154	84	121	0.2	0.2	7.830	A
Swa S - Swale Way South	542	135	241	1240	0.437	542	1142	0.8	0.8	5.158	A
Swa W - Swale Way West	1702	426	54	1451	1.173	1450	729	76.4	139.4	273.786	F
Barge - Barge Way	210	53	1210	555	0.379	210	294	0.6	0.6	10.440	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	68	17	1259	573	0.119	69	121	0.2	0.1	7.136	A
Swa S - Swale Way South	442	111	198	1274	0.347	443	1130	0.8	0.5	4.341	A
Swa W - Swale Way West	1390	347	44	1458	0.954	1447	597	139.4	125.1	329.139	F
Barge - Barge Way	172	43	1207	556	0.309	172	284	0.6	0.5	9.391	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	57	14	1234	593	0.096	57	121	0.1	0.1	6.722	A
Swa S - Swale Way South	370	93	166	1299	0.285	371	1125	0.5	0.4	3.881	A
Swa W - Swale Way West	1164	291	37	1462	0.796	1451	500	125.1	53.4	223.497	F
Barge - Barge Way	144	36	1210	555	0.259	144	278	0.5	0.4	8.773	A

# 2031 + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	13.31	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D22	2031 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	97	100.000
Swa S - Swale Way South		ONE HOUR	✓	1050	100.000
Swa W - Swale Way West		ONE HOUR	✓	726	100.000
Barge - Barge Way		ONE HOUR	✓	315	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	97	0
	Swa S - Swale Way South	0	1	974	75
	Swa W - Swale Way West	46	503	0	177
	Barge - Barge Way	0	57	258	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	8	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	13	11	0	40
	Barge - Barge Way	0	21	34	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.13	4.92	0.1	A	89	134
Swa S - Swale Way South	0.88	22.16	6.7	C	963	1445
Swa W - Swale Way West	0.59	6.43	1.4	A	666	999
Barge - Barge Way	0.37	6.06	0.6	A	289	434

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	73	18	614	1029	0.071	73	34	0.0	0.1	3.766	A
Swa S - Swale Way South	790	198	266	1406	0.562	785	420	0.0	1.3	5.754	A
Swa W - Swale Way West	547	137	57	1375	0.398	544	995	0.0	0.7	4.319	A
Barge - Barge Way	237	59	412	1042	0.228	236	189	0.0	0.3	4.458	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	87	22	735	948	0.092	87	41	0.1	0.1	4.179	A
Swa S - Swale Way South	944	236	319	1366	0.691	940	504	1.3	2.2	8.375	A
Swa W - Swale Way West	653	163	68	1368	0.477	652	1191	0.7	0.9	5.015	A
Barge - Barge Way	283	71	494	999	0.283	283	226	0.3	0.4	5.021	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	107	27	900	840	0.127	107	51	0.1	0.1	4.906	A
Swa S - Swale Way South	1156	289	390	1313	0.881	1140	616	2.2	6.3	19.228	C
Swa W - Swale Way West	799	200	82	1360	0.588	797	1447	0.9	1.4	6.375	A
Barge - Barge Way	347	87	604	942	0.368	346	276	0.4	0.6	6.038	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	107	27	902	839	0.127	107	51	0.1	0.1	4.917	A
Swa S - Swale Way South	1156	289	391	1312	0.881	1154	618	6.3	6.7	22.161	C
Swa W - Swale Way West	799	200	84	1359	0.588	799	1461	1.4	1.4	6.427	A
Barge - Barge Way	347	87	606	941	0.369	347	277	0.6	0.6	6.060	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	87	22	738	946	0.092	87	41	0.1	0.1	4.193	A
Swa S - Swale Way South	944	236	320	1366	0.691	962	506	6.7	2.3	9.282	A
Swa W - Swale Way West	653	163	70	1368	0.477	655	1212	1.4	0.9	5.063	A
Barge - Barge Way	283	71	496	998	0.284	284	228	0.6	0.4	5.043	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	73	18	618	1026	0.071	73	35	0.1	0.1	3.777	A
Swa S - Swale Way South	790	198	268	1405	0.563	794	423	2.3	1.3	5.934	A
Swa W - Swale Way West	547	137	58	1375	0.398	548	1005	0.9	0.7	4.357	A
Barge - Barge Way	237	59	415	1041	0.228	238	190	0.4	0.3	4.485	A

# 2031 + K3 Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	116.14	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D23	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	489	100.000
Swa W - Swale Way West		ONE HOUR	✓	1443	100.000
Barge - Barge Way		ONE HOUR	✓	207	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	442	46
	Swa W - Swale Way West	0	1157	2	284
	Barge - Barge Way	0	50	156	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	18	24
	Swa W - Swale Way West	0	7	50	36
	Barge - Barge Way	0	20	69	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.42	4.90	0.7	A	449	673
Swa W - Swale Way West	1.10	176.80	86.2	F	1324	1986
Barge - Barge Way	0.40	10.64	0.7	B	190	285

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1019	849	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	368	92	119	1323	0.278	367	900	0.0	0.4	3.755	A
Swa W - Swale Way West	1086	272	36	1452	0.748	1075	449	0.0	2.9	9.295	A
Barge - Barge Way	156	39	864	690	0.226	155	247	0.0	0.3	6.715	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1214	714	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	143	1302	0.338	439	1072	0.4	0.5	4.168	A
Swa W - Swale Way West	1297	324	43	1447	0.897	1280	539	2.9	7.2	19.753	C
Barge - Barge Way	186	47	1029	620	0.300	186	294	0.3	0.4	8.280	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1372	601	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	174	1274	0.423	538	1198	0.5	0.7	4.880	A
Swa W - Swale Way West	1589	397	53	1440	1.103	1424	659	7.2	48.4	80.788	F
Barge - Barge Way	228	57	1145	571	0.399	227	332	0.4	0.7	10.448	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1383	593	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	175	1274	0.423	538	1209	0.7	0.7	4.896	A
Swa W - Swale Way West	1589	397	53	1440	1.103	1437	660	48.4	86.2	176.113	F
Barge - Barge Way	228	57	1156	566	0.403	228	335	0.7	0.7	10.641	B

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1336	636	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	144	1301	0.338	440	1193	0.7	0.5	4.186	A
Swa W - Swale Way West	1297	324	43	1447	0.897	1430	541	86.2	53.0	176.804	F
Barge - Barge Way	186	47	1150	569	0.327	187	324	0.7	0.5	9.446	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1190	739	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	368	92	120	1322	0.278	369	1069	0.5	0.4	3.779	A
Swa W - Swale Way West	1086	272	36	1452	0.748	1285	453	53.0	3.2	45.305	E
Barge - Barge Way	156	39	1033	618	0.252	156	288	0.5	0.3	7.811	A



# 2031 + K3 Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	11.56	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D24	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	1049	100.000
Swa W - Swale Way West		ONE HOUR	✓	694	100.000
Barge - Barge Way		ONE HOUR	✓	341	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	973	75
	Swa W - Swale Way West	0	501	0	193
	Barge - Barge Way	0	57	284	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	0	11	0	45
	Barge - Barge Way	0	21	36	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.85	17.73	5.4	C	963	1444
Swa W - Swale Way West	0.57	6.32	1.3	A	637	955
Barge - Barge Way	0.39	6.20	0.6	A	313	469

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	632	1094	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	213	1435	0.550	785	419	0.0	1.2	5.498	A
Swa W - Swale Way West	522	131	57	1349	0.387	520	941	0.0	0.6	4.328	A
Barge - Barge Way	257	64	376	1047	0.245	255	201	0.0	0.3	4.541	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	757	1004	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	255	1401	0.673	940	502	1.2	2.0	7.755	A
Swa W - Swale Way West	624	156	68	1343	0.465	623	1127	0.6	0.9	4.995	A
Barge - Barge Way	307	77	451	1008	0.304	306	240	0.3	0.4	5.123	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	926	882	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	312	1355	0.853	1142	614	2.0	5.2	16.076	C
Swa W - Swale Way West	764	191	83	1334	0.573	762	1372	0.9	1.3	6.273	A
Barge - Barge Way	375	94	551	956	0.393	375	294	0.4	0.6	6.180	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	928	881	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	313	1354	0.853	1154	615	5.2	5.4	17.727	C
Swa W - Swale Way West	764	191	84	1334	0.573	764	1383	1.3	1.3	6.318	A
Barge - Barge Way	375	94	553	956	0.393	375	295	0.6	0.6	6.204	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	760	1001	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	256	1400	0.674	956	504	5.4	2.1	8.347	A
Swa W - Swale Way West	624	156	69	1342	0.465	626	1143	1.3	0.9	5.039	A
Barge - Barge Way	307	77	453	1007	0.304	307	242	0.6	0.4	5.148	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	636	1091	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	214	1434	0.551	793	422	2.1	1.2	5.650	A
Swa W - Swale Way West	522	131	57	1349	0.387	523	950	0.9	0.6	4.367	A
Barge - Barge Way	257	64	379	1046	0.246	257	202	0.4	0.3	4.570	A

# 2031 + K3 and WKN Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	132.21	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D27	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	489	100.000
Swa W - Swale Way West		ONE HOUR	✓	1452	100.000
Barge - Barge Way		ONE HOUR	✓	216	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	442	46
	Swa W - Swale Way West	0	1157	2	293
	Barge - Barge Way	0	50	165	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	18	24
	Swa W - Swale Way West	0	7	50	38
	Barge - Barge Way	0	20	71	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.43	4.97	0.7	A	449	673
Swa W - Swale Way West	1.12	202.31	94.5	F	1332	1999
Barge - Barge Way	0.42	11.03	0.7	B	198	297

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1025	841	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	368	92	126	1316	0.280	367	900	0.0	0.4	3.784	A
Swa W - Swale Way West	1093	273	36	1445	0.757	1081	456	0.0	3.0	9.616	A
Barge - Barge Way	163	41	864	681	0.239	161	253	0.0	0.3	6.910	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1221	705	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	151	1294	0.340	439	1071	0.4	0.5	4.209	A
Swa W - Swale Way West	1305	326	43	1440	0.907	1286	547	3.0	7.8	21.136	C
Barge - Barge Way	194	49	1027	612	0.317	194	302	0.3	0.5	8.582	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1371	596	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	184	1264	0.426	537	1187	0.5	0.7	4.952	A
Swa W - Swale Way West	1599	400	53	1433	1.115	1419	669	7.8	52.6	86.983	F
Barge - Barge Way	238	59	1134	568	0.419	237	338	0.5	0.7	10.842	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1381	589	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	185	1263	0.426	538	1196	0.7	0.7	4.968	A
Swa W - Swale Way West	1599	400	53	1433	1.115	1431	670	52.6	94.5	192.318	F
Barge - Barge Way	238	59	1143	564	0.422	238	341	0.7	0.7	11.033	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1333	633	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	152	1293	0.340	440	1181	0.7	0.5	4.229	A
Swa W - Swale Way West	1305	326	43	1440	0.907	1425	549	94.5	64.7	202.307	F
Barge - Barge Way	194	49	1138	566	0.343	195	330	0.7	0.5	9.717	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1232	708	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	368	92	127	1315	0.280	369	1105	0.5	0.4	3.806	A
Swa W - Swale Way West	1093	273	36	1445	0.757	1338	460	64.7	3.5	70.181	F
Barge - Barge Way	163	41	1069	595	0.273	163	305	0.5	0.4	8.345	A

# 2031 + K3 and WKN Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	12.30	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D28	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	1049	100.000
Swa W - Swale Way West		ONE HOUR	✓	698	100.000
Barge - Barge Way		ONE HOUR	✓	361	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	973	75
	Swa W - Swale Way West	0	501	0	197
	Barge - Barge Way	0	57	304	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	0	11	0	46
	Barge - Barge Way	0	21	36	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.86	19.34	5.9	C	963	1444
Swa W - Swale Way West	0.58	6.42	1.4	A	640	961
Barge - Barge Way	0.42	6.46	0.7	A	331	497

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	646	1082	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	228	1423	0.555	785	419	0.0	1.2	5.601	A
Swa W - Swale Way West	525	131	57	1345	0.391	523	956	0.0	0.6	4.369	A
Barge - Barge Way	272	68	376	1046	0.260	270	204	0.0	0.3	4.634	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	775	989	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	273	1386	0.680	940	502	1.2	2.1	8.000	A
Swa W - Swale Way West	627	157	68	1338	0.469	627	1144	0.6	0.9	5.053	A
Barge - Barge Way	325	81	451	1007	0.322	324	244	0.3	0.5	5.266	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	948	864	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	334	1337	0.864	1141	614	2.1	5.6	17.258	C
Swa W - Swale Way West	769	192	83	1330	0.578	767	1392	0.9	1.3	6.371	A
Barge - Barge Way	397	99	551	955	0.416	397	298	0.5	0.7	6.432	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	950	863	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	335	1336	0.864	1154	615	5.6	5.9	19.340	C
Swa W - Swale Way West	769	192	84	1329	0.578	768	1405	1.3	1.4	6.420	A
Barge - Barge Way	397	99	553	955	0.416	397	299	0.7	0.7	6.461	A



17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	778	987	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	274	1385	0.681	958	504	5.9	2.2	8.702	A
Swa W - Swale Way West	627	157	69	1337	0.469	629	1163	1.4	0.9	5.097	A
Barge - Barge Way	325	81	453	1006	0.323	325	246	0.7	0.5	5.294	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	651	1078	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	229	1421	0.556	793	422	2.2	1.3	5.766	A
Swa W - Swale Way West	525	131	57	1344	0.391	526	965	0.9	0.6	4.407	A
Barge - Barge Way	272	68	379	1044	0.260	272	205	0.5	0.4	4.666	A

# 2031 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	254.52	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D29	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	76	100.000
Swa S - Swale Way South		ONE HOUR	✓	492	100.000
Swa W - Swale Way West		ONE HOUR	✓	1572	100.000
Barge - Barge Way		ONE HOUR	✓	207	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	76	0
	Swa S - Swale Way South	1	1	444	46
	Swa W - Swale Way West	128	1158	2	284
	Barge - Barge Way	0	50	156	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	21	0
	Swa S - Swale Way South	0	0	18	24
	Swa W - Swale Way West	11	7	50	36
	Barge - Barge Way	0	20	69	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.16	7.91	0.2	A	70	105
Swa S - Swale Way South	0.44	5.30	0.8	A	451	677
Swa W - Swale Way West	1.20	394.03	160.8	F	1442	2164
Barge - Barge Way	0.41	11.08	0.7	B	190	285

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	57	14	1017	703	0.081	57	96	0.0	0.1	5.572	A
Swa S - Swale Way South	370	93	176	1288	0.288	369	898	0.0	0.4	3.912	A
Swa W - Swale Way West	1183	296	37	1453	0.814	1167	508	0.0	4.1	11.984	B
Barge - Barge Way	156	39	958	649	0.240	155	246	0.0	0.3	7.271	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	68	17	1197	599	0.114	68	112	0.1	0.1	6.774	A
Swa S - Swale Way South	442	111	211	1259	0.351	442	1055	0.4	0.5	4.400	A
Swa W - Swale Way West	1413	353	44	1448	0.976	1370	608	4.1	14.9	34.331	D
Barge - Barge Way	186	47	1124	578	0.322	185	290	0.3	0.5	9.164	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	84	21	1289	541	0.155	83	118	0.1	0.2	7.868	A
Swa S - Swale Way South	542	135	257	1221	0.444	541	1115	0.5	0.8	5.282	A
Swa W - Swale Way West	1731	433	54	1441	1.201	1437	744	14.9	88.4	138.193	F
Barge - Barge Way	228	57	1180	554	0.411	227	311	0.5	0.7	10.978	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	84	21	1292	539	0.155	84	118	0.2	0.2	7.911	A
Swa S - Swale Way South	542	135	258	1221	0.444	542	1118	0.8	0.8	5.302	A
Swa W - Swale Way West	1731	433	54	1441	1.201	1441	746	88.4	160.8	316.698	F
Barge - Barge Way	228	57	1183	553	0.412	228	312	0.7	0.7	11.076	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	68	17	1250	571	0.120	69	118	0.2	0.1	7.161	A
Swa S - Swale Way South	442	111	212	1258	0.352	443	1106	0.8	0.5	4.425	A
Swa W - Swale Way West	1413	353	44	1448	0.976	1439	611	160.8	154.3	394.034	F
Barge - Barge Way	186	47	1181	553	0.336	187	302	0.7	0.5	9.838	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	57	14	1222	593	0.096	57	118	0.1	0.1	6.720	A
Swa S - Swale Way South	370	93	178	1286	0.288	371	1102	0.5	0.4	3.938	A
Swa W - Swale Way West	1183	296	37	1453	0.815	1444	512	154.3	89.3	305.063	F
Barge - Barge Way	156	39	1184	552	0.282	156	296	0.5	0.4	9.109	A

# 2031 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	15.02	C

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D30	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	97	100.000
Swa S - Swale Way South		ONE HOUR	✓	1050	100.000
Swa W - Swale Way West		ONE HOUR	✓	742	100.000
Barge - Barge Way		ONE HOUR	✓	341	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	97	0
	Swa S - Swale Way South	0	1	974	75
	Swa W - Swale Way West	46	503	0	193
	Barge - Barge Way	0	57	284	0

## Vehicle Mix

### Heavy Vehicle Percentages

From	To			
	Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
Site - Site Access	0	0	8	0
Swa S - Swale Way South	0	0	5	11
Swa W - Swale Way West	13	11	0	45
Barge - Barge Way	0	21	36	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.13	5.09	0.2	A	89	134
Swa S - Swale Way South	0.90	26.00	7.9	D	963	1445
Swa W - Swale Way West	0.61	6.89	1.5	A	681	1021
Barge - Barge Way	0.40	6.52	0.7	A	313	469

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	73	18	633	1012	0.072	73	34	0.0	0.1	3.833	A
Swa S - Swale Way South	790	198	285	1388	0.569	785	420	0.0	1.3	5.921	A
Swa W - Swale Way West	559	140	57	1355	0.412	556	1014	0.0	0.7	4.491	A
Barge - Barge Way	257	64	412	1028	0.250	255	201	0.0	0.3	4.652	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	87	22	758	928	0.094	87	41	0.1	0.1	4.279	A
Swa S - Swale Way South	944	236	342	1345	0.702	940	504	1.3	2.3	8.807	A
Swa W - Swale Way West	667	167	68	1348	0.495	666	1214	0.7	1.0	5.267	A
Barge - Barge Way	307	77	494	986	0.311	306	240	0.3	0.4	5.293	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	107	27	928	816	0.131	107	51	0.1	0.1	5.076	A
Swa S - Swale Way South	1156	289	419	1286	0.899	1137	616	2.3	7.2	21.700	C
Swa W - Swale Way West	817	204	82	1340	0.610	815	1473	1.0	1.5	6.822	A
Barge - Barge Way	375	94	604	929	0.404	375	293	0.4	0.7	6.486	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	107	27	930	814	0.131	107	51	0.1	0.2	5.089	A
Swa S - Swale Way South	1156	289	419	1285	0.899	1153	618	7.2	7.9	26.000	D
Swa W - Swale Way West	817	204	83	1339	0.610	817	1489	1.5	1.5	6.888	A
Barge - Barge Way	375	94	606	928	0.405	375	295	0.7	0.7	6.516	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	87	22	762	926	0.094	87	41	0.2	0.1	4.293	A
Swa S - Swale Way South	944	236	343	1344	0.702	966	506	7.9	2.4	10.033	B
Swa W - Swale Way West	667	167	70	1347	0.495	669	1239	1.5	1.0	5.327	A
Barge - Barge Way	307	77	496	984	0.311	307	243	0.7	0.5	5.326	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	73	18	637	1009	0.072	73	35	0.1	0.1	3.847	A
Swa S - Swale Way South	790	198	287	1387	0.570	795	423	2.4	1.3	6.126	A
Swa W - Swale Way West	559	140	58	1354	0.412	560	1025	1.0	0.7	4.536	A
Barge - Barge Way	257	64	415	1026	0.250	257	202	0.5	0.3	4.682	A

# 2031 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	272.97	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D33	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	76	100.000
Swa S - Swale Way South		ONE HOUR	✓	492	100.000
Swa W - Swale Way West		ONE HOUR	✓	1581	100.000
Barge - Barge Way		ONE HOUR	✓	216	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	76	0
	Swa S - Swale Way South	1	1	444	46
	Swa W - Swale Way West	128	1158	2	293
	Barge - Barge Way	0	50	165	1

## Vehicle Mix



### Heavy Vehicle Percentages

From	To			
	Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
Site - Site Access	0	0	21	0
Swa S - Swale Way South	0	0	18	24
Swa W - Swale Way West	11	7	50	38
Barge - Barge Way	0	20	71	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.16	7.99	0.2	A	70	105
Swa S - Swale Way South	0.45	5.39	0.8	A	451	677
Swa W - Swale Way West	1.21	423.98	170.4	F	1451	2176
Barge - Barge Way	0.43	11.50	0.8	B	198	297

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	57	14	1023	696	0.082	57	96	0.0	0.1	5.629	A
Swa S - Swale Way South	370	93	182	1280	0.289	369	897	0.0	0.4	3.942	A
Swa W - Swale Way West	1190	298	37	1447	0.823	1173	514	0.0	4.3	12.477	B
Barge - Barge Way	163	41	957	640	0.254	161	253	0.0	0.3	7.491	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	68	17	1201	593	0.115	68	112	0.1	0.1	6.853	A
Swa S - Swale Way South	442	111	219	1251	0.354	442	1051	0.4	0.5	4.448	A
Swa W - Swale Way West	1421	355	44	1442	0.986	1372	616	4.3	16.5	37.103	E
Barge - Barge Way	194	49	1120	572	0.339	194	297	0.3	0.5	9.491	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	84	21	1288	536	0.156	83	117	0.1	0.2	7.948	A
Swa S - Swale Way South	542	135	267	1211	0.447	541	1104	0.5	0.8	5.366	A
Swa W - Swale Way West	1741	435	54	1435	1.213	1431	754	16.5	93.9	147.434	F
Barge - Barge Way	238	59	1168	552	0.431	237	317	0.5	0.7	11.397	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	84	21	1291	534	0.157	84	117	0.2	0.2	7.988	A
Swa S - Swale Way South	542	135	268	1210	0.448	542	1107	0.8	0.8	5.387	A
Swa W - Swale Way West	1741	435	54	1435	1.213	1435	756	93.9	170.4	336.799	F
Barge - Barge Way	238	59	1171	551	0.432	238	318	0.7	0.8	11.502	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	68	17	1247	569	0.120	69	117	0.2	0.1	7.201	A
Swa S - Swale Way South	442	111	220	1249	0.354	443	1096	0.8	0.6	4.472	A
Swa W - Swale Way West	1421	355	44	1442	0.986	1433	619	170.4	167.4	423.980	F
Barge - Barge Way	194	49	1169	551	0.352	195	308	0.8	0.6	10.126	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	57	14	1219	592	0.097	57	117	0.1	0.1	6.739	A
Swa S - Swale Way South	370	93	185	1278	0.290	371	1092	0.6	0.4	3.970	A
Swa W - Swale Way West	1190	298	37	1447	0.823	1438	519	167.4	105.5	342.672	F
Barge - Barge Way	163	41	1173	550	0.296	163	302	0.6	0.4	9.325	A

# 2031 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	16.40	C

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D34	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	97	100.000
Swa S - Swale Way South		ONE HOUR	✓	1050	100.000
Swa W - Swale Way West		ONE HOUR	✓	746	100.000
Barge - Barge Way		ONE HOUR	✓	361	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	97	0
	Swa S - Swale Way South	0	1	974	75
	Swa W - Swale Way West	46	503	0	197
	Barge - Barge Way	0	57	304	0

## Vehicle Mix

### Heavy Vehicle Percentages

From	To			
	Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
Site - Site Access	0	0	8	0
Swa S - Swale Way South	0	0	5	11
Swa W - Swale Way West	13	11	0	46
Barge - Barge Way	0	21	36	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.13	5.21	0.2	A	89	134
Swa S - Swale Way South	0.91	29.27	8.8	D	963	1445
Swa W - Swale Way West	0.62	7.01	1.6	A	685	1027
Barge - Barge Way	0.43	6.80	0.7	A	331	497

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	73	18	648	1001	0.073	73	34	0.0	0.1	3.879	A
Swa S - Swale Way South	790	198	300	1376	0.574	785	420	0.0	1.3	6.040	A
Swa W - Swale Way West	562	140	57	1350	0.416	559	1029	0.0	0.7	4.532	A
Barge - Barge Way	272	68	412	1027	0.265	270	204	0.0	0.4	4.750	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	87	22	776	915	0.095	87	41	0.1	0.1	4.349	A
Swa S - Swale Way South	944	236	360	1330	0.710	940	503	1.3	2.4	9.119	A
Swa W - Swale Way West	671	168	68	1344	0.499	670	1232	0.7	1.0	5.330	A
Barge - Barge Way	325	81	494	985	0.330	324	244	0.4	0.5	5.444	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	107	27	950	799	0.134	107	51	0.1	0.2	5.197	A
Swa S - Swale Way South	1156	289	440	1268	0.911	1134	616	2.4	7.9	23.656	C
Swa W - Swale Way West	821	205	82	1336	0.615	819	1492	1.0	1.6	6.935	A
Barge - Barge Way	397	99	604	928	0.428	396	297	0.5	0.7	6.764	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	107	27	952	797	0.134	107	51	0.2	0.2	5.211	A
Swa S - Swale Way South	1156	289	441	1268	0.912	1152	618	7.9	8.8	29.266	D
Swa W - Swale Way West	821	205	83	1335	0.615	821	1510	1.6	1.6	7.006	A
Barge - Barge Way	397	99	606	927	0.429	397	299	0.7	0.7	6.799	A

**17:15 - 17:30**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	87	22	780	912	0.096	87	41	0.2	0.1	4.366	A
Swa S - Swale Way South	944	236	362	1329	0.710	969	506	8.8	2.5	10.647	B
Swa W - Swale Way West	671	168	70	1343	0.500	673	1260	1.6	1.0	5.395	A
Barge - Barge Way	325	81	496	983	0.330	326	247	0.7	0.5	5.482	A

**17:30 - 17:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	73	18	653	997	0.073	73	35	0.1	0.1	3.896	A
Swa S - Swale Way South	790	198	302	1375	0.575	795	423	2.5	1.4	6.261	A
Swa W - Swale Way West	562	140	58	1350	0.416	563	1040	1.0	0.7	4.580	A
Barge - Barge Way	272	68	415	1025	0.265	272	205	0.5	0.4	4.783	A

# Junctions 9

## ARCADY 9 - Roundabout Module

Version: 9.0.2.5947  
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**Filename:** Swale Way - Barge Way.j9

**Path:** P:\JNY9290 - Kemsley K5\Transport\Arcady\WKN DCO\Swale Way - Barge Way

**Report generation date:** 18/03/2019 09:22:54

»2017, AM  
 »2017, PM  
 »2024, AM  
 »2024, PM  
 »2024 + Cumulative Development, AM  
 »2024 + Cumulative Development, PM  
 »2024 + K3 Operational, AM  
 »2024 + K3 Operational, PM  
 »2024 + WKN Operational, AM  
 »2024 + WKN Operational, PM  
 »2024 + K3 and WKN Operational, AM  
 »2024 + K3 and WKN Operational, PM  
 »2024 + K3 Operational + Cumulative Development, AM  
 »2024 + K3 Operational + Cumulative Development, PM  
 »2024 + WKN Operational + Cumulative Development, AM  
 »2024 + WKN Operational + Cumulative Development, PM  
 »2024 + K3 and WKN Operational + Cumulative Development, AM  
 »2024 + K3 and WKN Operational + Cumulative Development, PM  
 »2031, AM  
 »2031, PM  
 »2031 + Cumulative Development, AM  
 »2031 + Cumulative Development, PM  
 »2031 + K3 Operational, AM  
 »2031 + K3 Operational, PM  
 »2031 + WKN Operational, AM  
 »2031 + WKN Operational, PM  
 »2031 + K3 and WKN Operational, AM  
 »2031 + K3 and WKN Operational, PM  
 »2031 + K3 Operational + Cumulative Development, AM  
 »2031 + K3 Operational + Cumulative Development, PM  
 »2031 + WKN Operational + Cumulative Development, AM  
 »2031 + WKN Operational + Cumulative Development, PM  
 »2031 + K3 and WKN Operational + Cumulative Development, AM  
 »2031 + K3 and WKN Operational + Cumulative Development, PM

### Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2017						
Site - Site Access	0.0	0.00	0.00	0.0	0.00	0.00
Swale S - Swale Way South	0.5	3.90	0.32	1.7	6.78	0.64
Swale W - Swale Way West	4.4	13.55	0.82	0.9	4.74	0.46

Barge - Barge Way	0.3	7.43	0.22	0.4	4.75	0.26
<b>2024</b>						
Site - Site Access	0.0	0.00	0.00	0.0	0.00	0.00
Swa S - Swale Way South	0.7	4.87	0.42	5.4	17.58	0.85
Swa W - Swale Way West	84.9	173.73	1.10	1.3	6.24	0.57
Barge - Barge Way	0.6	10.46	0.39	0.6	6.18	0.39
<b>2024 + Cumulative Development</b>						
Site - Site Access	0.0	0.00	0.00	0.0	0.00	0.00
Swa S - Swale Way South	0.7	4.95	0.43	5.4	17.58	0.85
Swa W - Swale Way West	84.9	173.73	1.10	1.3	6.26	0.57
Barge - Barge Way	0.6	10.46	0.39	0.6	6.19	0.39
<b>2024 + K3 Operational</b>						
Site - Site Access	0.0	0.00	0.00	0.0	0.00	0.00
Swa S - Swale Way South	0.7	4.90	0.42	5.4	17.73	0.85
Swa W - Swale Way West	86.2	176.80	1.10	1.3	6.32	0.57
Barge - Barge Way	0.7	10.64	0.40	0.6	6.20	0.39
<b>2024 + WKN Operational</b>						
Site - Site Access	0.0	0.00	0.00	0.0	0.00	0.00
Swa S - Swale Way South	0.7	4.94	0.43	5.9	19.17	0.86
Swa W - Swale Way West	92.5	196.44	1.11	1.3	6.37	0.58
Barge - Barge Way	0.7	10.85	0.41	0.7	6.43	0.41
<b>2024 + K3 and WKN Operational</b>						
Site - Site Access	0.0	0.00	0.00	0.0	0.00	0.00
Swa S - Swale Way South	0.7	4.97	0.43	5.9	19.34	0.86
Swa W - Swale Way West	94.5	202.31	1.12	1.4	6.42	0.58
Barge - Barge Way	0.7	11.03	0.42	0.7	6.46	0.42
<b>2024 + K3 Operational + Cumulative Development</b>						
Site - Site Access	0.0	0.00	0.00	0.0	0.00	0.00
Swa S - Swale Way South	0.7	4.98	0.43	5.4	17.73	0.85
Swa W - Swale Way West	86.2	176.80	1.10	1.3	6.34	0.57
Barge - Barge Way	0.7	10.64	0.40	0.6	6.22	0.39
<b>2024 + WKN Operational + Cumulative Development</b>						
Site - Site Access	0.0	0.00	0.00	0.0	0.00	0.00
Swa S - Swale Way South	0.8	5.02	0.43	5.9	19.17	0.86
Swa W - Swale Way West	92.5	196.44	1.11	1.4	6.39	0.58
Barge - Barge Way	0.7	10.85	0.41	0.7	6.45	0.41
<b>2024 + K3 and WKN Operational + Cumulative Development</b>						
Site - Site Access	0.0	0.00	0.00	0.0	0.00	0.00
Swa S - Swale Way South	0.8	5.05	0.43	5.9	19.34	0.86
Swa W - Swale Way West	94.5	202.31	1.12	1.4	6.44	0.58
Barge - Barge Way	0.7	11.03	0.42	0.7	6.47	0.42
<b>2031</b>						
Site - Site Access	0.0	0.00	0.00	0.0	0.00	0.00
Swa S - Swale Way South	0.7	4.87	0.42	5.4	17.58	0.85
Swa W - Swale Way West	84.9	173.73	1.10	1.3	6.24	0.57
Barge - Barge Way	0.6	10.46	0.39	0.6	6.18	0.39
<b>2031 + Cumulative Development</b>						
Site - Site Access	0.2	7.86	0.15	0.2	5.08	0.13
Swa S - Swale Way South	0.8	5.27	0.44	7.8	25.71	0.90
Swa W - Swale Way West	159.4	389.59	1.20	1.5	6.79	0.61
Barge - Barge Way	0.7	10.88	0.40	0.7	6.49	0.40
<b>2031 + K3 Operational</b>						
Site - Site Access	0.0	0.00	0.00	0.0	0.00	0.00
Swa S - Swale Way South	0.7	4.90	0.42	5.4	17.73	0.85
Swa W - Swale Way West	86.2	176.80	1.10	1.3	6.32	0.57
Barge - Barge Way	0.7	10.64	0.40	0.6	6.20	0.39
<b>2031 + WKN Operational</b>						
Site - Site Access	0.0	0.00	0.00	0.0	0.00	0.00
Swa S - Swale Way South	0.7	4.94	0.43	5.9	19.17	0.86
Swa W - Swale Way West	92.5	196.44	1.11	1.3	6.37	0.58

	0.7	10.85	0.41	0.7	6.43	0.41
<b>2031 + K3 and WKN Operational</b>						
Site - Site Access	0.0	0.00	0.00	0.0	0.00	0.00
Swa S - Swale Way South	0.7	4.97	0.43	5.9	19.34	0.86
Swa W - Swale Way West	94.5	202.31	1.12	1.4	6.42	0.58
Barge - Barge Way	0.7	11.03	0.42	0.7	6.46	0.42
<b>2031 + K3 Operational + Cumulative Development</b>						
Site - Site Access	0.2	7.91	0.16	0.2	5.09	0.13
Swa S - Swale Way South	0.8	5.30	0.44	7.9	26.00	0.90
Swa W - Swale Way West	160.8	394.03	1.20	1.5	6.89	0.61
Barge - Barge Way	0.7	11.08	0.41	0.7	6.52	0.40
<b>2031 + WKN Operational + Cumulative Development</b>						
Site - Site Access	0.2	7.95	0.16	0.2	5.20	0.13
Swa S - Swale Way South	0.8	5.36	0.45	8.7	28.91	0.91
Swa W - Swale Way West	168.1	417.10	1.21	1.6	6.95	0.61
Barge - Barge Way	0.7	11.31	0.42	0.7	6.77	0.43
<b>2031 + K3 and WKN Operational + Cumulative Development</b>						
Site - Site Access	0.2	7.99	0.16	0.2	5.21	0.13
Swa S - Swale Way South	0.8	5.39	0.45	8.8	29.27	0.91
Swa W - Swale Way West	170.4	423.98	1.21	1.6	7.01	0.62
Barge - Barge Way	0.8	11.50	0.43	0.7	6.80	0.43

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

## File summary

### File Description

Title	(untitled)
Location	
Site number	
Date	08/11/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR\jack.clarke-williams
Description	

## Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

## Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

## Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓
D5	2024 + Cumulative Development	AM	ONE	07:15	08:45	15	



			HOUR				✓
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D9	2024 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D10	2024 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D15	2024 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D16	2024 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓
D21	2031 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D22	2031 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D23	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D24	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D25	2031 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D26	2031 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D27	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D28	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D29	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D30	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D31	2031 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D32	2031 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D33	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D34	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

### Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

# 2017, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	10.51	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Name	Description
Site	Site Access	
Swale S	Swale Way South	
Swale W	Swale Way West	
Barge	Barge Way	

### Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
Site - Site Access	3.50	6.50	11.0	15.0	45.0	25.0	
Swale S - Swale Way South	3.75	7.00	13.0	23.0	45.5	30.0	
Swale W - Swale Way West	3.75	7.00	10.0	47.5	45.5	30.0	
Barge - Barge Way	3.50	6.50	16.5	23.0	45.5	28.0	

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
Site - Site Access	0.598	1548
Swale S - Swale Way South	0.627	1694
Swale W - Swale Way West	0.628	1665
Barge - Barge Way	0.622	1657

The slope and intercept shown above include any corrections and adjustments.

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

## Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	400	100.000
Swa W - Swale Way West		ONE HOUR	✓	1107	100.000
Barge - Barge Way		ONE HOUR	✓	127	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	358	41
	Swa W - Swale Way West	0	925	2	180
	Barge - Barge Way	0	34	92	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	15	27
	Swa W - Swale Way West	0	5	50	34
	Barge - Barge Way	0	29	70	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.32	3.90	0.5	A	367	551
Swa W - Swale Way West	0.82	13.55	4.4	B	1016	1524
Barge - Barge Way	0.22	7.43	0.3	A	117	175

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	790	1021	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	301	75	71	1393	0.216	300	718	0.0	0.3	3.290	A
Swa W - Swale Way West	833	208	32	1493	0.558	828	339	0.0	1.2	5.377	A
Barge - Barge Way	96	24	694	759	0.126	95	166	0.0	0.1	5.415	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	946	916	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	360	90	85	1380	0.261	359	861	0.3	0.4	3.525	A

Swale W - Swale Way West	995	249	39	1488	0.669	992	406	1.2	2.0	7.210	A
Barge - Barge Way	114	29	832	703	0.162	114	199	0.1	0.2	6.114	A

## 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1153	778	0.000	0	0	0.0	0.0	0.000	A
Swale S - Swale Way South	440	110	104	1363	0.323	440	1049	0.4	0.5	3.898	A
Swale W - Swale Way West	1219	305	47	1482	0.822	1210	497	2.0	4.3	12.778	B
Barge - Barge Way	140	35	1014	628	0.223	139	243	0.2	0.3	7.371	A

## 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1161	773	0.000	0	0	0.0	0.0	0.000	A
Swale S - Swale Way South	440	110	105	1363	0.323	440	1056	0.5	0.5	3.902	A
Swale W - Swale Way West	1219	305	47	1482	0.822	1218	498	4.3	4.4	13.549	B
Barge - Barge Way	140	35	1021	625	0.224	140	244	0.3	0.3	7.426	A

## 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	957	909	0.000	0	0	0.0	0.0	0.000	A
Swale S - Swale Way South	360	90	86	1380	0.261	360	871	0.5	0.4	3.533	A
Swale W - Swale Way West	995	249	39	1488	0.669	1005	407	4.4	2.1	7.584	A
Barge - Barge Way	114	29	842	698	0.163	115	201	0.3	0.2	6.169	A

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	797	1016	0.000	0	0	0.0	0.0	0.000	A
Swale S - Swale Way South	301	75	72	1393	0.216	301	725	0.4	0.3	3.299	A
Swale W - Swale Way West	833	208	32	1493	0.558	837	341	2.1	1.3	5.511	A
Barge - Barge Way	96	24	701	756	0.126	96	168	0.2	0.1	5.452	A

# 2017, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	5.70	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	839	100.000
Swa W - Swale Way West		ONE HOUR	✓	592	100.000
Barge - Barge Way		ONE HOUR	✓	247	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	776	62
	Swa W - Swale Way West	0	454	0	138
	Barge - Barge Way	0	55	192	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	4	13
	Swa W - Swale Way West	0	8	0	36

Barge - Barge Way	0	22	30	0
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## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.64	6.78	1.7	A	770	1155
Swa W - Swale Way West	0.46	4.74	0.9	A	543	815
Barge - Barge Way	0.26	4.75	0.4	A	227	340

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	526	1185	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	632	158	144	1507	0.419	629	382	0.0	0.7	4.088	A
Swa W - Swale Way West	446	111	47	1424	0.313	444	725	0.0	0.5	3.665	A
Barge - Barge Way	186	46	341	1114	0.167	185	150	0.0	0.2	3.874	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	630	1113	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	754	189	172	1484	0.508	753	458	0.7	1.0	4.914	A
Swa W - Swale Way West	532	133	57	1419	0.375	532	869	0.5	0.6	4.055	A
Barge - Barge Way	222	56	409	1078	0.206	222	180	0.2	0.3	4.202	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	772	1016	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	924	231	211	1454	0.635	921	561	1.0	1.7	6.716	A
Swa W - Swale Way West	652	163	69	1411	0.462	651	1063	0.6	0.9	4.731	A
Barge - Barge Way	272	68	500	1030	0.264	272	220	0.3	0.4	4.742	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	773	1015	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	924	231	211	1454	0.635	924	562	1.7	1.7	6.785	A
Swa W - Swale Way West	652	163	69	1411	0.462	652	1066	0.9	0.9	4.742	A
Barge - Barge Way	272	68	501	1030	0.264	272	220	0.4	0.4	4.748	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	632	1112	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	754	189	173	1484	0.508	757	459	1.7	1.0	4.971	A
Swa W - Swale Way West	532	133	57	1419	0.375	533	873	0.9	0.6	4.070	A
Barge - Barge Way	222	56	410	1078	0.206	222	180	0.4	0.3	4.210	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	529	1183	0.000	0	0	0.0	0.0	0.000	A
Swale S - Swale Way South	632	158	145	1506	0.419	633	384	1.0	0.7	4.129	A
Swale W - Swale Way West	446	111	48	1424	0.313	446	730	0.6	0.5	3.685	A
Barge - Barge Way	186	46	343	1113	0.167	186	151	0.3	0.2	3.886	A

# 2024, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	114.34	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	489	100.000
Swa W - Swale Way West		ONE HOUR	✓	1441	100.000
Barge - Barge Way		ONE HOUR	✓	204	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	442	46
	Swa W - Swale Way West	0	1157	2	282
	Barge - Barge Way	0	50	153	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	18	24
	Swa W - Swale Way West	0	7	50	36



Barge - Barge Way	0	20	68	0
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## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.42	4.87	0.7	A	449	673
Swa W - Swale Way West	1.10	173.73	84.9	F	1322	1983
Barge - Barge Way	0.39	10.46	0.6	B	187	281

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1017	852	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	368	92	117	1326	0.278	367	900	0.0	0.4	3.745	A
Swa W - Swale Way West	1085	271	36	1452	0.747	1074	447	0.0	2.8	9.252	A
Barge - Barge Way	154	38	864	694	0.221	152	245	0.0	0.3	6.636	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1212	718	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	140	1306	0.337	439	1072	0.4	0.5	4.153	A
Swa W - Swale Way West	1295	324	43	1447	0.895	1278	536	2.8	7.1	19.562	C
Barge - Barge Way	183	46	1029	623	0.294	183	292	0.3	0.4	8.161	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1370	604	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	171	1278	0.421	538	1199	0.5	0.7	4.855	A
Swa W - Swale Way West	1587	397	53	1441	1.101	1424	656	7.1	47.7	79.894	F
Barge - Barge Way	225	56	1146	573	0.392	224	330	0.4	0.6	10.270	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1382	597	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	172	1277	0.421	538	1210	0.7	0.7	4.870	A
Swa W - Swale Way West	1587	397	53	1441	1.101	1438	657	47.7	84.9	173.734	F
Barge - Barge Way	225	56	1157	569	0.395	225	333	0.6	0.6	10.459	B

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1335	638	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	141	1305	0.337	440	1194	0.7	0.5	4.169	A
Swa W - Swale Way West	1295	324	43	1447	0.895	1430	538	84.9	51.2	173.047	F
Barge - Barge Way	183	46	1151	571	0.321	184	322	0.6	0.5	9.313	A

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1182	745	0.000	0	0	0.0	0.0	0.000	A
Swale S - Swale Way South	368	92	118	1325	0.278	369	1064	0.5	0.4	3.766	A
Swale W - Swale Way West	1085	271	36	1452	0.747	1277	451	51.2	3.2	42.166	E
Barge - Barge Way	154	38	1028	624	0.246	154	285	0.5	0.3	7.674	A

# 2024, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	11.48	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	1049	100.000
Swa W - Swale Way West		ONE HOUR	✓	691	100.000
Barge - Barge Way		ONE HOUR	✓	339	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	973	75
	Swa W - Swale Way West	0	501	0	190
	Barge - Barge Way	0	57	282	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	0	11	0	44

Barge - Barge Way	0	21	36	0
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## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.85	17.58	5.4	C	963	1444
Swa W - Swale Way West	0.57	6.24	1.3	A	634	951
Barge - Barge Way	0.39	6.18	0.6	A	311	467

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	630	1095	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	211	1436	0.550	785	419	0.0	1.2	5.488	A
Swa W - Swale Way West	520	130	57	1354	0.384	518	939	0.0	0.6	4.294	A
Barge - Barge Way	255	64	376	1047	0.244	254	198	0.0	0.3	4.532	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	755	1005	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	253	1402	0.673	940	502	1.2	2.0	7.732	A
Swa W - Swale Way West	621	155	68	1347	0.461	620	1125	0.6	0.8	4.947	A
Barge - Barge Way	305	76	451	1008	0.302	304	238	0.3	0.4	5.109	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	924	884	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	310	1356	0.852	1142	614	2.0	5.1	15.964	C
Swa W - Swale Way West	761	190	83	1339	0.568	759	1370	0.8	1.3	6.191	A
Barge - Barge Way	373	93	551	956	0.390	372	290	0.4	0.6	6.156	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	926	882	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	310	1356	0.852	1154	615	5.1	5.4	17.578	C
Swa W - Swale Way West	761	190	84	1338	0.569	761	1381	1.3	1.3	6.235	A
Barge - Barge Way	373	93	553	956	0.391	373	292	0.6	0.6	6.180	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	758	1003	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	254	1401	0.673	956	504	5.4	2.1	8.315	A
Swa W - Swale Way West	621	155	69	1346	0.461	623	1141	1.3	0.9	4.990	A
Barge - Barge Way	305	76	453	1007	0.303	306	240	0.6	0.4	5.134	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	634	1092	0.000	0	0	0.0	0.0	0.000	A
Swale S - Swale Way South	790	197	213	1435	0.550	793	422	2.1	1.2	5.641	A
Swale W - Swale Way West	520	130	57	1353	0.384	521	948	0.9	0.6	4.331	A
Barge - Barge Way	255	64	379	1046	0.244	256	200	0.4	0.3	4.559	A

# 2024 + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	114.06	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	491	100.000
Swa W - Swale Way West		ONE HOUR	✓	1441	100.000
Barge - Barge Way		ONE HOUR	✓	204	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	444	46
	Swa W - Swale Way West	0	1157	2	282
	Barge - Barge Way	0	50	153	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	19	24
	Swa W - Swale Way West	0	7	50	36

Barge - Barge Way	0	20	68	0
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## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.43	4.95	0.7	A	451	676
Swa W - Swale Way West	1.10	173.73	84.9	F	1322	1983
Barge - Barge Way	0.39	10.46	0.6	B	187	281

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1017	852	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	370	92	117	1316	0.281	368	900	0.0	0.4	3.790	A
Swa W - Swale Way West	1085	271	36	1452	0.747	1074	449	0.0	2.8	9.252	A
Barge - Barge Way	154	38	864	694	0.221	152	245	0.0	0.3	6.636	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1212	718	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	441	110	140	1296	0.341	441	1072	0.4	0.5	4.208	A
Swa W - Swale Way West	1295	324	43	1447	0.895	1278	538	2.8	7.1	19.562	C
Barge - Barge Way	183	46	1029	623	0.294	183	292	0.3	0.4	8.161	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1370	604	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	541	135	171	1268	0.426	540	1199	0.5	0.7	4.934	A
Swa W - Swale Way West	1587	397	53	1441	1.101	1424	658	7.1	47.7	79.894	F
Barge - Barge Way	225	56	1146	573	0.392	224	330	0.4	0.6	10.270	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1382	597	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	541	135	172	1268	0.426	541	1210	0.7	0.7	4.949	A
Swa W - Swale Way West	1587	397	53	1441	1.101	1438	659	47.7	84.9	173.734	F
Barge - Barge Way	225	56	1157	569	0.395	225	333	0.6	0.6	10.459	B

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1335	638	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	441	110	141	1295	0.341	442	1194	0.7	0.5	4.228	A
Swa W - Swale Way West	1295	324	43	1447	0.895	1430	540	84.9	51.2	173.047	F
Barge - Barge Way	183	46	1151	571	0.321	184	322	0.6	0.5	9.313	A

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1182	745	0.000	0	0	0.0	0.0	0.000	A
Swale S - Swale Way South	370	92	118	1315	0.281	370	1064	0.5	0.4	3.815	A
Swale W - Swale Way West	1085	271	36	1452	0.747	1277	452	51.2	3.2	42.166	E
Barge - Barge Way	154	38	1028	624	0.246	154	285	0.5	0.3	7.674	A



# 2024 + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	11.48	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	1049	100.000
Swa W - Swale Way West		ONE HOUR	✓	693	100.000
Barge - Barge Way		ONE HOUR	✓	339	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	973	75
	Swa W - Swale Way West	0	503	0	190
	Barge - Barge Way	0	57	282	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	0	11	0	44

Barge - Barge Way	0	21	36	0
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## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.85	17.58	5.4	C	963	1444
Swa W - Swale Way West	0.57	6.26	1.3	A	636	954
Barge - Barge Way	0.39	6.19	0.6	A	311	467

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	632	1094	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	211	1436	0.550	785	420	0.0	1.2	5.488	A
Swa W - Swale Way West	522	130	57	1354	0.385	519	939	0.0	0.6	4.300	A
Barge - Barge Way	255	64	378	1046	0.244	254	198	0.0	0.3	4.536	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	757	1004	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	253	1402	0.673	940	504	1.2	2.0	7.732	A
Swa W - Swale Way West	623	156	68	1347	0.462	622	1125	0.6	0.9	4.957	A
Barge - Barge Way	305	76	452	1008	0.302	304	238	0.3	0.4	5.116	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	926	882	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	310	1356	0.852	1142	616	2.0	5.1	15.964	C
Swa W - Swale Way West	763	191	83	1339	0.570	761	1369	0.9	1.3	6.212	A
Barge - Barge Way	373	93	554	955	0.391	372	290	0.4	0.6	6.168	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	928	881	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	310	1356	0.852	1154	618	5.1	5.4	17.578	C
Swa W - Swale Way West	763	191	84	1338	0.570	763	1381	1.3	1.3	6.256	A
Barge - Barge Way	373	93	555	955	0.391	373	292	0.6	0.6	6.192	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	760	1002	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	254	1401	0.673	956	506	5.4	2.1	8.314	A
Swa W - Swale Way West	623	156	69	1347	0.463	625	1141	1.3	0.9	4.998	A
Barge - Barge Way	305	76	454	1006	0.303	306	240	0.6	0.4	5.141	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	636	1091	0.000	0	0	0.0	0.0	0.000	A
Swale S - Swale Way South	790	197	213	1435	0.550	793	423	2.1	1.2	5.641	A
Swale W - Swale Way West	522	130	57	1353	0.385	523	948	0.9	0.6	4.339	A
Barge - Barge Way	255	64	380	1045	0.244	256	200	0.4	0.3	4.565	A

# 2024 + K3 Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	116.14	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	489	100.000
Swa W - Swale Way West		ONE HOUR	✓	1443	100.000
Barge - Barge Way		ONE HOUR	✓	207	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	442	46
	Swa W - Swale Way West	0	1157	2	284
	Barge - Barge Way	0	50	156	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	18	24
	Swa W - Swale Way West	0	7	50	36

Barge - Barge Way	0	20	69	0
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## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.42	4.90	0.7	A	449	673
Swa W - Swale Way West	1.10	176.80	86.2	F	1324	1986
Barge - Barge Way	0.40	10.64	0.7	B	190	285

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1019	849	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	368	92	119	1323	0.278	367	900	0.0	0.4	3.755	A
Swa W - Swale Way West	1086	272	36	1452	0.748	1075	449	0.0	2.9	9.295	A
Barge - Barge Way	156	39	864	690	0.226	155	247	0.0	0.3	6.715	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1214	714	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	143	1302	0.338	439	1072	0.4	0.5	4.168	A
Swa W - Swale Way West	1297	324	43	1447	0.897	1280	539	2.9	7.2	19.753	C
Barge - Barge Way	186	47	1029	620	0.300	186	294	0.3	0.4	8.280	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1372	601	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	174	1274	0.423	538	1198	0.5	0.7	4.880	A
Swa W - Swale Way West	1589	397	53	1440	1.103	1424	659	7.2	48.4	80.788	F
Barge - Barge Way	228	57	1145	571	0.399	227	332	0.4	0.7	10.448	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1383	593	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	175	1274	0.423	538	1209	0.7	0.7	4.896	A
Swa W - Swale Way West	1589	397	53	1440	1.103	1437	660	48.4	86.2	176.113	F
Barge - Barge Way	228	57	1156	566	0.403	228	335	0.7	0.7	10.641	B

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1336	636	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	144	1301	0.338	440	1193	0.7	0.5	4.186	A
Swa W - Swale Way West	1297	324	43	1447	0.897	1430	541	86.2	53.0	176.804	F
Barge - Barge Way	186	47	1150	569	0.327	187	324	0.7	0.5	9.446	A

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1190	739	0.000	0	0	0.0	0.0	0.000	A
Swale S - Swale Way South	368	92	120	1322	0.278	369	1069	0.5	0.4	3.779	A
Swale W - Swale Way West	1086	272	36	1452	0.748	1285	453	53.0	3.2	45.305	E
Barge - Barge Way	156	39	1033	618	0.252	156	288	0.5	0.3	7.811	A

# 2024 + K3 Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	11.56	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	1049	100.000
Swa W - Swale Way West		ONE HOUR	✓	694	100.000
Barge - Barge Way		ONE HOUR	✓	341	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	973	75
	Swa W - Swale Way West	0	501	0	193
	Barge - Barge Way	0	57	284	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	0	11	0	45

Barge - Barge Way	0	21	36	0
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## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.85	17.73	5.4	C	963	1444
Swa W - Swale Way West	0.57	6.32	1.3	A	637	955
Barge - Barge Way	0.39	6.20	0.6	A	313	469

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	632	1094	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	213	1435	0.550	785	419	0.0	1.2	5.498	A
Swa W - Swale Way West	522	131	57	1349	0.387	520	941	0.0	0.6	4.328	A
Barge - Barge Way	257	64	376	1047	0.245	255	201	0.0	0.3	4.541	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	757	1004	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	255	1401	0.673	940	502	1.2	2.0	7.755	A
Swa W - Swale Way West	624	156	68	1343	0.465	623	1127	0.6	0.9	4.995	A
Barge - Barge Way	307	77	451	1008	0.304	306	240	0.3	0.4	5.123	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	926	882	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	312	1355	0.853	1142	614	2.0	5.2	16.076	C
Swa W - Swale Way West	764	191	83	1334	0.573	762	1372	0.9	1.3	6.273	A
Barge - Barge Way	375	94	551	956	0.393	375	294	0.4	0.6	6.180	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	928	881	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	313	1354	0.853	1154	615	5.2	5.4	17.727	C
Swa W - Swale Way West	764	191	84	1334	0.573	764	1383	1.3	1.3	6.318	A
Barge - Barge Way	375	94	553	956	0.393	375	295	0.6	0.6	6.204	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	760	1001	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	256	1400	0.674	956	504	5.4	2.1	8.347	A
Swa W - Swale Way West	624	156	69	1342	0.465	626	1143	1.3	0.9	5.039	A
Barge - Barge Way	307	77	453	1007	0.304	307	242	0.6	0.4	5.148	A



## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	636	1091	0.000	0	0	0.0	0.0	0.000	A
Swale S - Swale Way South	790	197	214	1434	0.551	793	422	2.1	1.2	5.650	A
Swale W - Swale Way West	522	131	57	1349	0.387	523	950	0.9	0.6	4.367	A
Barge - Barge Way	257	64	379	1046	0.246	257	202	0.4	0.3	4.570	A

# 2024 + WKN Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	128.62	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2024 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	489	100.000
Swa W - Swale Way West		ONE HOUR	✓	1449	100.000
Barge - Barge Way		ONE HOUR	✓	213	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	442	46
	Swa W - Swale Way West	0	1157	2	290
	Barge - Barge Way	0	50	162	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	18	24
	Swa W - Swale Way West	0	7	50	38

Barge - Barge Way	0	20	70	0
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## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.43	4.94	0.7	A	449	673
Swa W - Swale Way West	1.11	196.44	92.5	F	1330	1994
Barge - Barge Way	0.41	10.85	0.7	B	195	293

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1023	844	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	368	92	123	1319	0.279	367	900	0.0	0.4	3.773	A
Swa W - Swale Way West	1091	273	36	1445	0.755	1079	454	0.0	2.9	9.547	A
Barge - Barge Way	160	40	864	685	0.234	159	251	0.0	0.3	6.830	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1219	709	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	148	1297	0.339	439	1071	0.4	0.5	4.194	A
Swa W - Swale Way West	1303	326	43	1440	0.904	1284	544	2.9	7.6	20.819	C
Barge - Barge Way	191	48	1028	616	0.311	191	299	0.3	0.4	8.459	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1370	599	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	181	1267	0.425	538	1189	0.5	0.7	4.926	A
Swa W - Swale Way West	1595	399	53	1434	1.113	1420	665	7.6	51.6	85.559	F
Barge - Barge Way	235	59	1137	570	0.411	234	336	0.4	0.7	10.665	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1381	592	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	181	1267	0.425	538	1199	0.7	0.7	4.941	A
Swa W - Swale Way West	1595	399	53	1434	1.113	1432	667	51.6	92.5	188.591	F
Barge - Barge Way	235	59	1146	566	0.414	234	338	0.7	0.7	10.852	B

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1333	635	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	149	1296	0.339	440	1184	0.7	0.5	4.212	A
Swa W - Swale Way West	1303	326	43	1440	0.904	1425	546	92.5	62.0	196.437	F
Barge - Barge Way	191	48	1141	568	0.337	192	328	0.7	0.5	9.590	A

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1222	716	0.000	0	0	0.0	0.0	0.000	A
Swale S - Swale Way South	368	92	125	1317	0.279	369	1097	0.5	0.4	3.798	A
Swale W - Swale Way West	1091	273	36	1445	0.755	1325	457	62.0	3.4	64.012	F
Barge - Barge Way	160	40	1061	602	0.266	161	301	0.5	0.4	8.170	A

# 2024 + WKN Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	12.22	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2024 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	1049	100.000
Swa W - Swale Way West		ONE HOUR	✓	695	100.000
Barge - Barge Way		ONE HOUR	✓	359	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	973	75
	Swa W - Swale Way West	0	501	0	194
	Barge - Barge Way	0	57	302	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	0	11	0	46

Barge - Barge Way	0	21	36	0
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## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.86	19.17	5.9	C	963	1444
Swa W - Swale Way West	0.58	6.37	1.3	A	638	957
Barge - Barge Way	0.41	6.43	0.7	A	329	494

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	645	1083	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	226	1424	0.555	785	419	0.0	1.2	5.591	A
Swa W - Swale Way West	523	131	57	1346	0.389	521	954	0.0	0.6	4.350	A
Barge - Barge Way	270	68	376	1046	0.258	269	201	0.0	0.3	4.624	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	773	991	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	271	1388	0.680	940	502	1.2	2.1	7.975	A
Swa W - Swale Way West	625	156	68	1339	0.467	624	1143	0.6	0.9	5.026	A
Barge - Barge Way	323	81	451	1007	0.320	322	241	0.3	0.5	5.251	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	946	866	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	332	1339	0.863	1141	614	2.1	5.5	17.134	C
Swa W - Swale Way West	765	191	83	1331	0.575	763	1390	0.9	1.3	6.323	A
Barge - Barge Way	395	99	551	955	0.414	394	295	0.5	0.7	6.406	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	948	865	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	332	1338	0.863	1154	615	5.5	5.9	19.165	C
Swa W - Swale Way West	765	191	84	1330	0.575	765	1403	1.3	1.3	6.369	A
Barge - Barge Way	395	99	553	955	0.414	395	296	0.7	0.7	6.434	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	776	988	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	272	1387	0.680	958	504	5.9	2.2	8.666	A
Swa W - Swale Way West	625	156	69	1339	0.467	627	1161	1.3	0.9	5.071	A
Barge - Barge Way	323	81	453	1006	0.321	324	243	0.7	0.5	5.281	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	649	1080	0.000	0	0	0.0	0.0	0.000	A
Swale S - Swale Way South	790	197	228	1423	0.555	793	422	2.2	1.3	5.753	A
Swale W - Swale Way West	523	131	57	1345	0.389	524	964	0.9	0.6	4.390	A
Barge - Barge Way	270	68	379	1045	0.259	271	203	0.5	0.4	4.655	A

# 2024 + K3 and WKN Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	132.21	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	489	100.000
Swa W - Swale Way West		ONE HOUR	✓	1452	100.000
Barge - Barge Way		ONE HOUR	✓	216	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	442	46
	Swa W - Swale Way West	0	1157	2	293
	Barge - Barge Way	0	50	165	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	18	24
	Swa W - Swale Way West	0	7	50	38



Barge - Barge Way	0	20	71	0
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## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.43	4.97	0.7	A	449	673
Swa W - Swale Way West	1.12	202.31	94.5	F	1332	1999
Barge - Barge Way	0.42	11.03	0.7	B	198	297

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1025	841	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	368	92	126	1316	0.280	367	900	0.0	0.4	3.784	A
Swa W - Swale Way West	1093	273	36	1445	0.757	1081	456	0.0	3.0	9.616	A
Barge - Barge Way	163	41	864	681	0.239	161	253	0.0	0.3	6.910	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1221	705	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	151	1294	0.340	439	1071	0.4	0.5	4.209	A
Swa W - Swale Way West	1305	326	43	1440	0.907	1286	547	3.0	7.8	21.136	C
Barge - Barge Way	194	49	1027	612	0.317	194	302	0.3	0.5	8.582	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1371	596	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	184	1264	0.426	537	1187	0.5	0.7	4.952	A
Swa W - Swale Way West	1599	400	53	1433	1.115	1419	669	7.8	52.6	86.983	F
Barge - Barge Way	238	59	1134	568	0.419	237	338	0.5	0.7	10.842	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1381	589	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	185	1263	0.426	538	1196	0.7	0.7	4.968	A
Swa W - Swale Way West	1599	400	53	1433	1.115	1431	670	52.6	94.5	192.318	F
Barge - Barge Way	238	59	1143	564	0.422	238	341	0.7	0.7	11.033	B

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1333	633	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	152	1293	0.340	440	1181	0.7	0.5	4.229	A
Swa W - Swale Way West	1305	326	43	1440	0.907	1425	549	94.5	64.7	202.307	F
Barge - Barge Way	194	49	1138	566	0.343	195	330	0.7	0.5	9.717	A

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1232	708	0.000	0	0	0.0	0.0	0.000	A
Swale S - Swale Way South	368	92	127	1315	0.280	369	1105	0.5	0.4	3.806	A
Swale W - Swale Way West	1093	273	36	1445	0.757	1338	460	64.7	3.5	70.181	F
Barge - Barge Way	163	41	1069	595	0.273	163	305	0.5	0.4	8.345	A

# 2024 + K3 and WKN Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	12.30	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	1049	100.000
Swa W - Swale Way West		ONE HOUR	✓	698	100.000
Barge - Barge Way		ONE HOUR	✓	361	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	973	75
	Swa W - Swale Way West	0	501	0	197
	Barge - Barge Way	0	57	304	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	0	11	0	46

Barge - Barge Way	0	21	36	0
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## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.86	19.34	5.9	C	963	1444
Swa W - Swale Way West	0.58	6.42	1.4	A	640	961
Barge - Barge Way	0.42	6.46	0.7	A	331	497

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	646	1082	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	228	1423	0.555	785	419	0.0	1.2	5.601	A
Swa W - Swale Way West	525	131	57	1345	0.391	523	956	0.0	0.6	4.369	A
Barge - Barge Way	272	68	376	1046	0.260	270	204	0.0	0.3	4.634	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	775	989	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	273	1386	0.680	940	502	1.2	2.1	8.000	A
Swa W - Swale Way West	627	157	68	1338	0.469	627	1144	0.6	0.9	5.053	A
Barge - Barge Way	325	81	451	1007	0.322	324	244	0.3	0.5	5.266	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	948	864	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	334	1337	0.864	1141	614	2.1	5.6	17.258	C
Swa W - Swale Way West	769	192	83	1330	0.578	767	1392	0.9	1.3	6.371	A
Barge - Barge Way	397	99	551	955	0.416	397	298	0.5	0.7	6.432	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	950	863	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	335	1336	0.864	1154	615	5.6	5.9	19.340	C
Swa W - Swale Way West	769	192	84	1329	0.578	768	1405	1.3	1.4	6.420	A
Barge - Barge Way	397	99	553	955	0.416	397	299	0.7	0.7	6.461	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	778	987	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	274	1385	0.681	958	504	5.9	2.2	8.702	A
Swa W - Swale Way West	627	157	69	1337	0.469	629	1163	1.4	0.9	5.097	A
Barge - Barge Way	325	81	453	1006	0.323	325	246	0.7	0.5	5.294	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	651	1078	0.000	0	0	0.0	0.0	0.000	A
Swale S - Swale Way South	790	197	229	1421	0.556	793	422	2.2	1.3	5.766	A
Swale W - Swale Way West	525	131	57	1344	0.391	526	965	0.9	0.6	4.407	A
Barge - Barge Way	272	68	379	1044	0.260	272	205	0.5	0.4	4.666	A

# 2024 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	115.86	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	491	100.000
Swa W - Swale Way West		ONE HOUR	✓	1443	100.000
Barge - Barge Way		ONE HOUR	✓	207	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	444	46
	Swa W - Swale Way West	0	1157	2	284
	Barge - Barge Way	0	50	156	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way

From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	19	24
	Swa W - Swale Way West	0	7	50	36
	Barge - Barge Way	0	20	69	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.43	4.98	0.7	A	451	676
Swa W - Swale Way West	1.10	176.80	86.2	F	1324	1986
Barge - Barge Way	0.40	10.64	0.7	B	190	285

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1019	849	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	370	92	119	1313	0.281	368	900	0.0	0.4	3.801	A
Swa W - Swale Way West	1086	272	36	1452	0.748	1075	451	0.0	2.9	9.295	A
Barge - Barge Way	156	39	864	690	0.226	155	247	0.0	0.3	6.715	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1214	714	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	441	110	143	1293	0.341	441	1072	0.4	0.5	4.224	A
Swa W - Swale Way West	1297	324	43	1447	0.897	1280	540	2.9	7.2	19.752	C
Barge - Barge Way	186	47	1029	620	0.300	186	294	0.3	0.4	8.280	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1372	601	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	541	135	174	1265	0.427	540	1198	0.5	0.7	4.960	A
Swa W - Swale Way West	1589	397	53	1440	1.103	1424	661	7.2	48.4	80.788	F
Barge - Barge Way	228	57	1145	571	0.399	227	332	0.4	0.7	10.448	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1383	593	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	541	135	175	1264	0.428	541	1209	0.7	0.7	4.976	A
Swa W - Swale Way West	1589	397	53	1440	1.103	1437	663	48.4	86.2	176.112	F
Barge - Barge Way	228	57	1156	566	0.403	228	335	0.7	0.7	10.641	B

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1336	636	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	441	110	144	1292	0.342	442	1193	0.7	0.5	4.244	A

<b>Swale W - Swale Way West</b>	1297	324	43	1447	0.897	1430	543	86.2	53.0	176.804	F
<b>Barge - Barge Way</b>	186	47	1150	569	0.327	187	324	0.7	0.5	9.446	A

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>Site - Site Access</b>	0	0	1190	739	0.000	0	0	0.0	0.0	0.000	A
<b>Swale S - Swale Way South</b>	370	92	120	1312	0.282	370	1069	0.5	0.4	3.823	A
<b>Swale W - Swale Way West</b>	1086	272	36	1452	0.748	1285	454	53.0	3.2	45.305	E
<b>Barge - Barge Way</b>	156	39	1033	618	0.252	156	288	0.5	0.3	7.809	A



# 2024 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	11.56	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	1049	100.000
Swa W - Swale Way West		ONE HOUR	✓	696	100.000
Barge - Barge Way		ONE HOUR	✓	341	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	973	75
	Swa W - Swale Way West	0	503	0	193
	Barge - Barge Way	0	57	284	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way

From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	0	11	0	45
	Barge - Barge Way	0	21	36	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.85	17.73	5.4	C	963	1444
Swa W - Swale Way West	0.57	6.34	1.3	A	639	958
Barge - Barge Way	0.39	6.22	0.6	A	313	469

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	633	1093	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	213	1435	0.550	785	420	0.0	1.2	5.498	A
Swa W - Swale Way West	524	131	57	1350	0.388	521	941	0.0	0.6	4.334	A
Barge - Barge Way	257	64	378	1046	0.245	255	201	0.0	0.3	4.546	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	759	1003	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	255	1401	0.673	940	504	1.2	2.0	7.755	A
Swa W - Swale Way West	626	156	68	1343	0.466	625	1127	0.6	0.9	5.006	A
Barge - Barge Way	307	77	452	1007	0.304	306	240	0.3	0.4	5.130	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	928	881	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	312	1355	0.853	1142	616	2.0	5.2	16.076	C
Swa W - Swale Way West	766	192	83	1335	0.574	764	1372	0.9	1.3	6.294	A
Barge - Barge Way	375	94	554	955	0.393	375	294	0.4	0.6	6.192	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	930	879	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	313	1354	0.853	1154	618	5.2	5.4	17.727	C
Swa W - Swale Way West	766	192	84	1334	0.574	766	1383	1.3	1.3	6.339	A
Barge - Barge Way	375	94	555	954	0.393	375	295	0.6	0.6	6.216	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	762	1000	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	256	1400	0.674	956	506	5.4	2.1	8.347	A

<b>Swale W - Swale Way West</b>	626	156	69	1342	0.466	628	1143	1.3	0.9	5.048	A
<b>Barge - Barge Way</b>	307	77	454	1006	0.305	307	242	0.6	0.4	5.157	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>Site - Site Access</b>	0	0	637	1090	0.000	0	0	0.0	0.0	0.000	A
<b>Swale S - Swale Way South</b>	790	197	214	1434	0.551	793	423	2.1	1.2	5.650	A
<b>Swale W - Swale Way West</b>	524	131	57	1349	0.388	525	950	0.9	0.6	4.372	A
<b>Barge - Barge Way</b>	257	64	380	1045	0.246	257	202	0.4	0.3	4.575	A

# 2024 + WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	128.31	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2024 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	491	100.000
Swa W - Swale Way West		ONE HOUR	✓	1449	100.000
Barge - Barge Way		ONE HOUR	✓	213	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	444	46
	Swa W - Swale Way West	0	1157	2	290
	Barge - Barge Way	0	50	162	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way

From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	19	24
	Swa W - Swale Way West	0	7	50	38
	Barge - Barge Way	0	20	70	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.43	5.02	0.8	A	451	676
Swa W - Swale Way West	1.11	196.44	92.5	F	1330	1994
Barge - Barge Way	0.41	10.85	0.7	B	195	293

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1023	844	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	370	92	123	1309	0.282	368	900	0.0	0.4	3.819	A
Swa W - Swale Way West	1091	273	36	1445	0.755	1079	455	0.0	2.9	9.547	A
Barge - Barge Way	160	40	864	685	0.234	159	251	0.0	0.3	6.830	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1219	709	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	441	110	148	1287	0.343	441	1071	0.4	0.5	4.251	A
Swa W - Swale Way West	1303	326	43	1440	0.904	1284	546	2.9	7.6	20.819	C
Barge - Barge Way	191	48	1028	616	0.311	191	299	0.3	0.4	8.459	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1370	599	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	541	135	181	1258	0.430	540	1189	0.5	0.7	5.006	A
Swa W - Swale Way West	1595	399	53	1434	1.113	1420	668	7.6	51.6	85.558	F
Barge - Barge Way	235	59	1137	570	0.411	234	336	0.4	0.7	10.665	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1381	592	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	541	135	181	1257	0.430	541	1199	0.7	0.8	5.023	A
Swa W - Swale Way West	1595	399	53	1434	1.113	1432	669	51.6	92.5	188.590	F
Barge - Barge Way	235	59	1146	566	0.414	234	338	0.7	0.7	10.852	B

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1333	635	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	441	110	149	1286	0.343	442	1184	0.8	0.5	4.272	A

<b>Swa W - Swale Way West</b>	1303	326	43	1440	0.904	1425	548	92.5	62.0	196.437	F
<b>Barge - Barge Way</b>	191	48	1141	568	0.337	192	328	0.7	0.5	9.590	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>Site - Site Access</b>	0	0	1222	716	0.000	0	0	0.0	0.0	0.000	A
<b>Swa S - Swale Way South</b>	370	92	125	1307	0.283	370	1097	0.5	0.4	3.843	A
<b>Swa W - Swale Way West</b>	1091	273	36	1445	0.755	1325	459	62.0	3.4	64.012	F
<b>Barge - Barge Way</b>	160	40	1061	602	0.266	161	301	0.5	0.4	8.171	A

# 2024 + WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	12.22	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2024 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	1049	100.000
Swa W - Swale Way West		ONE HOUR	✓	697	100.000
Barge - Barge Way		ONE HOUR	✓	359	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	973	75
	Swa W - Swale Way West	0	503	0	194
	Barge - Barge Way	0	57	302	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way

From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	0	11	0	46
	Barge - Barge Way	0	21	36	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.86	19.17	5.9	C	963	1444
Swa W - Swale Way West	0.58	6.39	1.4	A	640	959
Barge - Barge Way	0.41	6.45	0.7	A	329	494

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	646	1082	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	226	1424	0.555	785	420	0.0	1.2	5.591	A
Swa W - Swale Way West	525	131	57	1346	0.390	522	954	0.0	0.6	4.357	A
Barge - Barge Way	270	68	378	1045	0.259	269	201	0.0	0.3	4.629	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	775	989	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	271	1388	0.680	940	504	1.2	2.1	7.975	A
Swa W - Swale Way West	627	157	68	1340	0.468	626	1143	0.6	0.9	5.036	A
Barge - Barge Way	323	81	452	1006	0.321	322	241	0.3	0.5	5.258	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	948	865	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	332	1339	0.863	1141	616	2.1	5.5	17.133	C
Swa W - Swale Way West	767	192	83	1331	0.576	766	1390	0.9	1.3	6.342	A
Barge - Barge Way	395	99	554	954	0.414	394	295	0.5	0.7	6.419	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	950	863	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	332	1338	0.863	1154	618	5.5	5.9	19.165	C
Swa W - Swale Way West	767	192	84	1331	0.577	767	1403	1.3	1.4	6.390	A
Barge - Barge Way	395	99	555	954	0.415	395	296	0.7	0.7	6.447	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	778	987	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	272	1387	0.680	958	506	5.9	2.2	8.666	A



<b>Swale W - Swale Way West</b>	627	157	69	1339	0.468	628	1161	1.4	0.9	5.082	A
<b>Barge - Barge Way</b>	323	81	454	1005	0.321	324	243	0.7	0.5	5.286	A

**17:30 - 17:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>Site - Site Access</b>	0	0	651	1079	0.000	0	0	0.0	0.0	0.000	A
<b>Swale S - Swale Way South</b>	790	197	228	1423	0.555	793	423	2.2	1.3	5.753	A
<b>Swale W - Swale Way West</b>	525	131	57	1346	0.390	526	964	0.9	0.6	4.395	A
<b>Barge - Barge Way</b>	270	68	380	1044	0.259	271	203	0.5	0.4	4.661	A

# 2024 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	131.89	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	491	100.000
Swa W - Swale Way West		ONE HOUR	✓	1452	100.000
Barge - Barge Way		ONE HOUR	✓	216	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	444	46
	Swa W - Swale Way West	0	1157	2	293
	Barge - Barge Way	0	50	165	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site	Swa S - Swale Way	Swa W - Swale Way	Barge - Barge

		Access	South	West	Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	19	24
	Swa W - Swale Way West	0	7	50	38
	Barge - Barge Way	0	20	71	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.43	5.05	0.8	A	451	676
Swa W - Swale Way West	1.12	202.31	94.5	F	1332	1999
Barge - Barge Way	0.42	11.03	0.7	B	198	297

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1025	841	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	370	92	126	1306	0.283	368	900	0.0	0.4	3.831	A
Swa W - Swale Way West	1093	273	36	1445	0.757	1081	458	0.0	3.0	9.616	A
Barge - Barge Way	163	41	864	681	0.239	161	253	0.0	0.3	6.910	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1221	705	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	441	110	151	1284	0.344	441	1071	0.4	0.5	4.267	A
Swa W - Swale Way West	1305	326	43	1440	0.907	1286	548	3.0	7.8	21.136	C
Barge - Barge Way	194	49	1027	612	0.317	194	302	0.3	0.5	8.582	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1371	596	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	541	135	184	1254	0.431	540	1187	0.5	0.8	5.034	A
Swa W - Swale Way West	1599	400	53	1433	1.115	1419	671	7.8	52.6	86.982	F
Barge - Barge Way	238	59	1134	568	0.419	237	338	0.5	0.7	10.842	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1381	589	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	541	135	185	1253	0.431	541	1196	0.8	0.8	5.050	A
Swa W - Swale Way West	1599	400	53	1433	1.115	1431	672	52.6	94.5	192.318	F
Barge - Barge Way	238	59	1143	564	0.422	238	341	0.7	0.7	11.033	B

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1333	633	0.000	0	0	0.0	0.0	0.000	A

<b>Swale S - Swale Way South</b>	441	110	152	1283	0.344	442	1181	0.8	0.5	4.287	A
<b>Swale W - Swale Way West</b>	1305	326	43	1440	0.907	1425	551	94.5	64.7	202.307	F
<b>Barge - Barge Way</b>	194	49	1138	566	0.343	195	330	0.7	0.5	9.717	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>Site - Site Access</b>	0	0	1232	708	0.000	0	0	0.0	0.0	0.000	A
<b>Swale S - Swale Way South</b>	370	92	127	1305	0.283	370	1105	0.5	0.4	3.855	A
<b>Swale W - Swale Way West</b>	1093	273	36	1445	0.757	1338	461	64.7	3.5	70.182	F
<b>Barge - Barge Way</b>	163	41	1069	595	0.273	163	305	0.5	0.4	8.345	A

# 2024 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	12.31	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	1049	100.000
Swa W - Swale Way West		ONE HOUR	✓	700	100.000
Barge - Barge Way		ONE HOUR	✓	361	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	973	75
	Swa W - Swale Way West	0	503	0	197
	Barge - Barge Way	0	57	304	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site	Swa S - Swale Way	Swa W - Swale Way	Barge - Barge

From	Access	South	West	Way	
	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	0	11	0	46
	Barge - Barge Way	0	21	36	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.86	19.34	5.9	C	963	1444
Swa W - Swale Way West	0.58	6.44	1.4	A	642	963
Barge - Barge Way	0.42	6.47	0.7	A	331	497

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	648	1081	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	228	1423	0.555	785	420	0.0	1.2	5.601	A
Swa W - Swale Way West	527	132	57	1345	0.392	524	956	0.0	0.6	4.375	A
Barge - Barge Way	272	68	378	1045	0.260	270	204	0.0	0.3	4.639	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	776	988	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	273	1386	0.680	940	504	1.2	2.1	8.000	A
Swa W - Swale Way West	629	157	68	1338	0.470	628	1144	0.6	0.9	5.062	A
Barge - Barge Way	325	81	452	1006	0.322	324	244	0.3	0.5	5.273	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	950	863	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	334	1337	0.864	1141	616	2.1	5.6	17.258	C
Swa W - Swale Way West	771	193	83	1330	0.579	769	1392	0.9	1.4	6.393	A
Barge - Barge Way	397	99	554	954	0.417	397	298	0.5	0.7	6.445	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	952	861	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	335	1336	0.864	1154	618	5.6	5.9	19.340	C
Swa W - Swale Way West	771	193	84	1329	0.580	771	1405	1.4	1.4	6.442	A
Barge - Barge Way	397	99	555	953	0.417	397	299	0.7	0.7	6.474	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	780	986	0.000	0	0	0.0	0.0	0.000	A

<b>Swale S - Swale Way South</b>	943	236	274	1385	0.681	958	506	5.9	2.2	8.703	A
<b>Swale W - Swale Way West</b>	629	157	69	1338	0.470	631	1163	1.4	0.9	5.108	A
<b>Barge - Barge Way</b>	325	81	454	1005	0.323	325	246	0.7	0.5	5.303	A

**17:30 - 17:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>Site - Site Access</b>	0	0	652	1077	0.000	0	0	0.0	0.0	0.000	A
<b>Swale S - Swale Way South</b>	790	197	229	1421	0.556	793	423	2.2	1.3	5.766	A
<b>Swale W - Swale Way West</b>	527	132	57	1344	0.392	528	965	0.9	0.6	4.415	A
<b>Barge - Barge Way</b>	272	68	380	1044	0.260	272	205	0.5	0.4	4.671	A

# 2031, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	114.34	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	489	100.000
Swa W - Swale Way West		ONE HOUR	✓	1441	100.000
Barge - Barge Way		ONE HOUR	✓	204	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	442	46
	Swa W - Swale Way West	0	1157	2	282
	Barge - Barge Way	0	50	153	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	18	24
	Swa W - Swale Way West	0	7	50	36



Barge - Barge Way	0	20	68	0
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## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.42	4.87	0.7	A	449	673
Swa W - Swale Way West	1.10	173.73	84.9	F	1322	1983
Barge - Barge Way	0.39	10.46	0.6	B	187	281

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1017	852	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	368	92	117	1326	0.278	367	900	0.0	0.4	3.745	A
Swa W - Swale Way West	1085	271	36	1452	0.747	1074	447	0.0	2.8	9.252	A
Barge - Barge Way	154	38	864	694	0.221	152	245	0.0	0.3	6.636	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1212	718	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	140	1306	0.337	439	1072	0.4	0.5	4.153	A
Swa W - Swale Way West	1295	324	43	1447	0.895	1278	536	2.8	7.1	19.562	C
Barge - Barge Way	183	46	1029	623	0.294	183	292	0.3	0.4	8.161	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1370	604	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	171	1278	0.421	538	1199	0.5	0.7	4.855	A
Swa W - Swale Way West	1587	397	53	1441	1.101	1424	656	7.1	47.7	79.894	F
Barge - Barge Way	225	56	1146	573	0.392	224	330	0.4	0.6	10.270	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1382	597	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	172	1277	0.421	538	1210	0.7	0.7	4.870	A
Swa W - Swale Way West	1587	397	53	1441	1.101	1438	657	47.7	84.9	173.734	F
Barge - Barge Way	225	56	1157	569	0.395	225	333	0.6	0.6	10.459	B

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1335	638	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	141	1305	0.337	440	1194	0.7	0.5	4.169	A
Swa W - Swale Way West	1295	324	43	1447	0.895	1430	538	84.9	51.2	173.047	F
Barge - Barge Way	183	46	1151	571	0.321	184	322	0.6	0.5	9.313	A

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1182	745	0.000	0	0	0.0	0.0	0.000	A
Swale S - Swale Way South	368	92	118	1325	0.278	369	1064	0.5	0.4	3.766	A
Swale W - Swale Way West	1085	271	36	1452	0.747	1277	451	51.2	3.2	42.166	E
Barge - Barge Way	154	38	1028	624	0.246	154	285	0.5	0.3	7.674	A

# 2031, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	11.48	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	1049	100.000
Swa W - Swale Way West		ONE HOUR	✓	691	100.000
Barge - Barge Way		ONE HOUR	✓	339	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	973	75
	Swa W - Swale Way West	0	501	0	190
	Barge - Barge Way	0	57	282	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	0	11	0	44

Barge - Barge Way	0	21	36	0
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## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.85	17.58	5.4	C	963	1444
Swa W - Swale Way West	0.57	6.24	1.3	A	634	951
Barge - Barge Way	0.39	6.18	0.6	A	311	467

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	630	1095	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	211	1436	0.550	785	419	0.0	1.2	5.488	A
Swa W - Swale Way West	520	130	57	1354	0.384	518	939	0.0	0.6	4.294	A
Barge - Barge Way	255	64	376	1047	0.244	254	198	0.0	0.3	4.532	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	755	1005	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	253	1402	0.673	940	502	1.2	2.0	7.732	A
Swa W - Swale Way West	621	155	68	1347	0.461	620	1125	0.6	0.8	4.947	A
Barge - Barge Way	305	76	451	1008	0.302	304	238	0.3	0.4	5.109	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	924	884	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	310	1356	0.852	1142	614	2.0	5.1	15.964	C
Swa W - Swale Way West	761	190	83	1339	0.568	759	1370	0.8	1.3	6.191	A
Barge - Barge Way	373	93	551	956	0.390	372	290	0.4	0.6	6.156	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	926	882	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	310	1356	0.852	1154	615	5.1	5.4	17.578	C
Swa W - Swale Way West	761	190	84	1338	0.569	761	1381	1.3	1.3	6.235	A
Barge - Barge Way	373	93	553	956	0.391	373	292	0.6	0.6	6.180	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	758	1003	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	254	1401	0.673	956	504	5.4	2.1	8.315	A
Swa W - Swale Way West	621	155	69	1346	0.461	623	1141	1.3	0.9	4.990	A
Barge - Barge Way	305	76	453	1007	0.303	306	240	0.6	0.4	5.134	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	634	1092	0.000	0	0	0.0	0.0	0.000	A
Swale S - Swale Way South	790	197	213	1435	0.550	793	422	2.1	1.2	5.641	A
Swale W - Swale Way West	520	130	57	1353	0.384	521	948	0.9	0.6	4.331	A
Barge - Barge Way	255	64	379	1046	0.244	256	200	0.4	0.3	4.559	A

# 2031 + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	252.09	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D21	2031 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	76	100.000
Swa S - Swale Way South		ONE HOUR	✓	492	100.000
Swa W - Swale Way West		ONE HOUR	✓	1570	100.000
Barge - Barge Way		ONE HOUR	✓	204	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	76	0
	Swa S - Swale Way South	1	1	444	46
	Swa W - Swale Way West	128	1158	2	282
	Barge - Barge Way	0	50	153	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	21	0
	Swa S - Swale Way South	0	0	18	24
	Swa W - Swale Way West	11	7	50	36

Barge - Barge Way	0	20	68	0
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## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.15	7.86	0.2	A	70	105
Swa S - Swale Way South	0.44	5.27	0.8	A	451	677
Swa W - Swale Way West	1.20	389.59	159.4	F	1441	2161
Barge - Barge Way	0.40	10.88	0.7	B	187	281

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	57	14	1014	705	0.081	57	96	0.0	0.1	5.552	A
Swa S - Swale Way South	370	93	173	1290	0.287	369	898	0.0	0.4	3.901	A
Swa W - Swale Way West	1182	295	37	1454	0.813	1166	505	0.0	4.1	11.919	B
Barge - Barge Way	154	38	958	652	0.235	152	245	0.0	0.3	7.182	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	68	17	1195	602	0.113	68	112	0.1	0.1	6.741	A
Swa S - Swale Way South	442	111	208	1262	0.350	442	1055	0.4	0.5	4.384	A
Swa W - Swale Way West	1411	353	44	1449	0.974	1369	606	4.1	14.7	33.943	D
Barge - Barge Way	183	46	1125	581	0.316	183	288	0.3	0.5	9.030	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	84	21	1287	544	0.154	83	118	0.1	0.2	7.821	A
Swa S - Swale Way South	542	135	254	1225	0.442	541	1116	0.5	0.8	5.252	A
Swa W - Swale Way West	1729	432	54	1442	1.199	1437	741	14.7	87.5	136.861	F
Barge - Barge Way	225	56	1181	557	0.404	224	310	0.5	0.7	10.786	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	84	21	1291	541	0.155	84	119	0.2	0.2	7.864	A
Swa S - Swale Way South	542	135	255	1224	0.442	542	1119	0.8	0.8	5.272	A
Swa W - Swale Way West	1729	432	54	1442	1.199	1441	743	87.5	159.4	313.740	F
Barge - Barge Way	225	56	1185	555	0.405	225	311	0.7	0.7	10.884	B

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	68	17	1249	573	0.119	69	118	0.2	0.1	7.134	A
Swa S - Swale Way South	442	111	209	1261	0.351	443	1108	0.8	0.5	4.407	A
Swa W - Swale Way West	1411	353	44	1448	0.974	1439	608	159.4	152.3	389.595	F
Barge - Barge Way	183	46	1183	556	0.330	184	301	0.7	0.5	9.696	A

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	57	14	1222	595	0.096	57	118	0.1	0.1	6.699	A
Swale S - Swale Way South	370	93	175	1289	0.287	371	1104	0.5	0.4	3.925	A
Swale W - Swale Way West	1182	295	37	1453	0.813	1444	509	152.3	86.8	299.485	F
Barge - Barge Way	154	38	1186	555	0.277	154	295	0.5	0.4	8.997	A



# 2031 + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	14.88	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D22	2031 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	97	100.000
Swa S - Swale Way South		ONE HOUR	✓	1050	100.000
Swa W - Swale Way West		ONE HOUR	✓	739	100.000
Barge - Barge Way		ONE HOUR	✓	339	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	97	0
	Swa S - Swale Way South	0	1	974	75
	Swa W - Swale Way West	46	503	0	190
	Barge - Barge Way	0	57	282	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	8	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	13	11	0	44

Barge - Barge Way	0	21	36	0
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## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.13	5.08	0.2	A	89	134
Swa S - Swale Way South	0.90	25.71	7.8	D	963	1445
Swa W - Swale Way West	0.61	6.79	1.5	A	678	1017
Barge - Barge Way	0.40	6.49	0.7	A	311	467

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	73	18	631	1013	0.072	73	34	0.0	0.1	3.829	A
Swa S - Swale Way South	790	198	284	1389	0.569	785	420	0.0	1.3	5.909	A
Swa W - Swale Way West	556	139	57	1359	0.409	554	1012	0.0	0.7	4.456	A
Barge - Barge Way	255	64	412	1028	0.248	254	198	0.0	0.3	4.643	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	87	22	757	930	0.094	87	41	0.1	0.1	4.272	A
Swa S - Swale Way South	944	236	340	1346	0.701	940	504	1.3	2.3	8.775	A
Swa W - Swale Way West	664	166	68	1352	0.491	663	1212	0.7	1.0	5.216	A
Barge - Barge Way	305	76	494	986	0.309	304	238	0.3	0.4	5.279	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	107	27	926	817	0.131	107	51	0.1	0.1	5.064	A
Swa S - Swale Way South	1156	289	416	1288	0.898	1137	616	2.3	7.1	21.521	C
Swa W - Swale Way West	814	203	82	1344	0.605	811	1471	1.0	1.5	6.731	A
Barge - Barge Way	373	93	604	929	0.402	372	290	0.4	0.7	6.459	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	107	27	928	816	0.131	107	51	0.1	0.2	5.077	A
Swa S - Swale Way South	1156	289	417	1287	0.898	1153	618	7.1	7.8	25.706	D
Swa W - Swale Way West	814	203	83	1343	0.606	814	1487	1.5	1.5	6.793	A
Barge - Barge Way	373	93	606	928	0.402	373	292	0.7	0.7	6.489	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	87	22	760	927	0.094	87	41	0.2	0.1	4.288	A
Swa S - Swale Way South	944	236	342	1345	0.702	965	506	7.8	2.4	9.975	A
Swa W - Swale Way West	664	166	70	1351	0.492	667	1237	1.5	1.0	5.275	A
Barge - Barge Way	305	76	496	985	0.310	306	240	0.7	0.5	5.308	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	73	18	636	1010	0.072	73	35	0.1	0.1	3.842	A
Swale S - Swale Way South	790	198	286	1388	0.570	795	423	2.4	1.3	6.112	A
Swale W - Swale Way West	556	139	58	1358	0.410	557	1023	1.0	0.7	4.502	A
Barge - Barge Way	255	64	415	1027	0.249	256	200	0.5	0.3	4.674	A

# 2031 + K3 Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	116.14	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D23	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	489	100.000
Swa W - Swale Way West		ONE HOUR	✓	1443	100.000
Barge - Barge Way		ONE HOUR	✓	207	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	442	46
	Swa W - Swale Way West	0	1157	2	284
	Barge - Barge Way	0	50	156	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	18	24
	Swa W - Swale Way West	0	7	50	36

Barge - Barge Way	0	20	69	0
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## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.42	4.90	0.7	A	449	673
Swa W - Swale Way West	1.10	176.80	86.2	F	1324	1986
Barge - Barge Way	0.40	10.64	0.7	B	190	285

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1019	849	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	368	92	119	1323	0.278	367	900	0.0	0.4	3.755	A
Swa W - Swale Way West	1086	272	36	1452	0.748	1075	449	0.0	2.9	9.295	A
Barge - Barge Way	156	39	864	690	0.226	155	247	0.0	0.3	6.715	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1214	714	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	143	1302	0.338	439	1072	0.4	0.5	4.168	A
Swa W - Swale Way West	1297	324	43	1447	0.897	1280	539	2.9	7.2	19.753	C
Barge - Barge Way	186	47	1029	620	0.300	186	294	0.3	0.4	8.280	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1372	601	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	174	1274	0.423	538	1198	0.5	0.7	4.880	A
Swa W - Swale Way West	1589	397	53	1440	1.103	1424	659	7.2	48.4	80.788	F
Barge - Barge Way	228	57	1145	571	0.399	227	332	0.4	0.7	10.448	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1383	593	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	175	1274	0.423	538	1209	0.7	0.7	4.896	A
Swa W - Swale Way West	1589	397	53	1440	1.103	1437	660	48.4	86.2	176.113	F
Barge - Barge Way	228	57	1156	566	0.403	228	335	0.7	0.7	10.641	B

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1336	636	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	144	1301	0.338	440	1193	0.7	0.5	4.186	A
Swa W - Swale Way West	1297	324	43	1447	0.897	1430	541	86.2	53.0	176.804	F
Barge - Barge Way	186	47	1150	569	0.327	187	324	0.7	0.5	9.446	A

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1190	739	0.000	0	0	0.0	0.0	0.000	A
Swale S - Swale Way South	368	92	120	1322	0.278	369	1069	0.5	0.4	3.779	A
Swale W - Swale Way West	1086	272	36	1452	0.748	1285	453	53.0	3.2	45.305	E
Barge - Barge Way	156	39	1033	618	0.252	156	288	0.5	0.3	7.811	A

# 2031 + K3 Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	11.56	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D24	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	1049	100.000
Swa W - Swale Way West		ONE HOUR	✓	694	100.000
Barge - Barge Way		ONE HOUR	✓	341	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	973	75
	Swa W - Swale Way West	0	501	0	193
	Barge - Barge Way	0	57	284	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	0	11	0	45

Barge - Barge Way	0	21	36	0
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## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.85	17.73	5.4	C	963	1444
Swa W - Swale Way West	0.57	6.32	1.3	A	637	955
Barge - Barge Way	0.39	6.20	0.6	A	313	469

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	632	1094	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	213	1435	0.550	785	419	0.0	1.2	5.498	A
Swa W - Swale Way West	522	131	57	1349	0.387	520	941	0.0	0.6	4.328	A
Barge - Barge Way	257	64	376	1047	0.245	255	201	0.0	0.3	4.541	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	757	1004	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	255	1401	0.673	940	502	1.2	2.0	7.755	A
Swa W - Swale Way West	624	156	68	1343	0.465	623	1127	0.6	0.9	4.995	A
Barge - Barge Way	307	77	451	1008	0.304	306	240	0.3	0.4	5.123	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	926	882	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	312	1355	0.853	1142	614	2.0	5.2	16.076	C
Swa W - Swale Way West	764	191	83	1334	0.573	762	1372	0.9	1.3	6.273	A
Barge - Barge Way	375	94	551	956	0.393	375	294	0.4	0.6	6.180	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	928	881	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	313	1354	0.853	1154	615	5.2	5.4	17.727	C
Swa W - Swale Way West	764	191	84	1334	0.573	764	1383	1.3	1.3	6.318	A
Barge - Barge Way	375	94	553	956	0.393	375	295	0.6	0.6	6.204	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	760	1001	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	256	1400	0.674	956	504	5.4	2.1	8.347	A
Swa W - Swale Way West	624	156	69	1342	0.465	626	1143	1.3	0.9	5.039	A
Barge - Barge Way	307	77	453	1007	0.304	307	242	0.6	0.4	5.148	A



## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	636	1091	0.000	0	0	0.0	0.0	0.000	A
Swale S - Swale Way South	790	197	214	1434	0.551	793	422	2.1	1.2	5.650	A
Swale W - Swale Way West	522	131	57	1349	0.387	523	950	0.9	0.6	4.367	A
Barge - Barge Way	257	64	379	1046	0.246	257	202	0.4	0.3	4.570	A

# 2031 + WKN Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	128.62	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D25	2031 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	489	100.000
Swa W - Swale Way West		ONE HOUR	✓	1449	100.000
Barge - Barge Way		ONE HOUR	✓	213	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	442	46
	Swa W - Swale Way West	0	1157	2	290
	Barge - Barge Way	0	50	162	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	18	24
	Swa W - Swale Way West	0	7	50	38

Barge - Barge Way	0	20	70	0
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## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.43	4.94	0.7	A	449	673
Swa W - Swale Way West	1.11	196.44	92.5	F	1330	1994
Barge - Barge Way	0.41	10.85	0.7	B	195	293

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1023	844	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	368	92	123	1319	0.279	367	900	0.0	0.4	3.773	A
Swa W - Swale Way West	1091	273	36	1445	0.755	1079	454	0.0	2.9	9.547	A
Barge - Barge Way	160	40	864	685	0.234	159	251	0.0	0.3	6.830	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1219	709	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	148	1297	0.339	439	1071	0.4	0.5	4.194	A
Swa W - Swale Way West	1303	326	43	1440	0.904	1284	544	2.9	7.6	20.819	C
Barge - Barge Way	191	48	1028	616	0.311	191	299	0.3	0.4	8.459	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1370	599	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	181	1267	0.425	538	1189	0.5	0.7	4.926	A
Swa W - Swale Way West	1595	399	53	1434	1.113	1420	665	7.6	51.6	85.559	F
Barge - Barge Way	235	59	1137	570	0.411	234	336	0.4	0.7	10.665	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1381	592	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	181	1267	0.425	538	1199	0.7	0.7	4.941	A
Swa W - Swale Way West	1595	399	53	1434	1.113	1432	667	51.6	92.5	188.591	F
Barge - Barge Way	235	59	1146	566	0.414	234	338	0.7	0.7	10.852	B

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1333	635	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	149	1296	0.339	440	1184	0.7	0.5	4.212	A
Swa W - Swale Way West	1303	326	43	1440	0.904	1425	546	92.5	62.0	196.437	F
Barge - Barge Way	191	48	1141	568	0.337	192	328	0.7	0.5	9.590	A

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1222	716	0.000	0	0	0.0	0.0	0.000	A
Swale S - Swale Way South	368	92	125	1317	0.279	369	1097	0.5	0.4	3.798	A
Swale W - Swale Way West	1091	273	36	1445	0.755	1325	457	62.0	3.4	64.012	F
Barge - Barge Way	160	40	1061	602	0.266	161	301	0.5	0.4	8.170	A

# 2031 + WKN Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	12.22	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D26	2031 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	1049	100.000
Swa W - Swale Way West		ONE HOUR	✓	695	100.000
Barge - Barge Way		ONE HOUR	✓	359	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	973	75
	Swa W - Swale Way West	0	501	0	194
	Barge - Barge Way	0	57	302	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	0	11	0	46

Barge - Barge Way	0	21	36	0
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## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.86	19.17	5.9	C	963	1444
Swa W - Swale Way West	0.58	6.37	1.3	A	638	957
Barge - Barge Way	0.41	6.43	0.7	A	329	494

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	645	1083	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	226	1424	0.555	785	419	0.0	1.2	5.591	A
Swa W - Swale Way West	523	131	57	1346	0.389	521	954	0.0	0.6	4.350	A
Barge - Barge Way	270	68	376	1046	0.258	269	201	0.0	0.3	4.624	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	773	991	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	271	1388	0.680	940	502	1.2	2.1	7.975	A
Swa W - Swale Way West	625	156	68	1339	0.467	624	1143	0.6	0.9	5.026	A
Barge - Barge Way	323	81	451	1007	0.320	322	241	0.3	0.5	5.251	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	946	866	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	332	1339	0.863	1141	614	2.1	5.5	17.134	C
Swa W - Swale Way West	765	191	83	1331	0.575	763	1390	0.9	1.3	6.323	A
Barge - Barge Way	395	99	551	955	0.414	394	295	0.5	0.7	6.406	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	948	865	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	332	1338	0.863	1154	615	5.5	5.9	19.165	C
Swa W - Swale Way West	765	191	84	1330	0.575	765	1403	1.3	1.3	6.369	A
Barge - Barge Way	395	99	553	955	0.414	395	296	0.7	0.7	6.434	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	776	988	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	272	1387	0.680	958	504	5.9	2.2	8.666	A
Swa W - Swale Way West	625	156	69	1339	0.467	627	1161	1.3	0.9	5.071	A
Barge - Barge Way	323	81	453	1006	0.321	324	243	0.7	0.5	5.281	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	649	1080	0.000	0	0	0.0	0.0	0.000	A
Swale S - Swale Way South	790	197	228	1423	0.555	793	422	2.2	1.3	5.753	A
Swale W - Swale Way West	523	131	57	1345	0.389	524	964	0.9	0.6	4.390	A
Barge - Barge Way	270	68	379	1045	0.259	271	203	0.5	0.4	4.655	A

# 2031 + K3 and WKN Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	132.21	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D27	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	489	100.000
Swa W - Swale Way West		ONE HOUR	✓	1452	100.000
Barge - Barge Way		ONE HOUR	✓	216	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	442	46
	Swa W - Swale Way West	0	1157	2	293
	Barge - Barge Way	0	50	165	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	18	24
	Swa W - Swale Way West	0	7	50	38



Barge - Barge Way	0	20	71	0
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## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.43	4.97	0.7	A	449	673
Swa W - Swale Way West	1.12	202.31	94.5	F	1332	1999
Barge - Barge Way	0.42	11.03	0.7	B	198	297

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1025	841	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	368	92	126	1316	0.280	367	900	0.0	0.4	3.784	A
Swa W - Swale Way West	1093	273	36	1445	0.757	1081	456	0.0	3.0	9.616	A
Barge - Barge Way	163	41	864	681	0.239	161	253	0.0	0.3	6.910	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1221	705	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	151	1294	0.340	439	1071	0.4	0.5	4.209	A
Swa W - Swale Way West	1305	326	43	1440	0.907	1286	547	3.0	7.8	21.136	C
Barge - Barge Way	194	49	1027	612	0.317	194	302	0.3	0.5	8.582	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1371	596	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	184	1264	0.426	537	1187	0.5	0.7	4.952	A
Swa W - Swale Way West	1599	400	53	1433	1.115	1419	669	7.8	52.6	86.983	F
Barge - Barge Way	238	59	1134	568	0.419	237	338	0.5	0.7	10.842	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1381	589	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	538	135	185	1263	0.426	538	1196	0.7	0.7	4.968	A
Swa W - Swale Way West	1599	400	53	1433	1.115	1431	670	52.6	94.5	192.318	F
Barge - Barge Way	238	59	1143	564	0.422	238	341	0.7	0.7	11.033	B

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1333	633	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	440	110	152	1293	0.340	440	1181	0.7	0.5	4.229	A
Swa W - Swale Way West	1305	326	43	1440	0.907	1425	549	94.5	64.7	202.307	F
Barge - Barge Way	194	49	1138	566	0.343	195	330	0.7	0.5	9.717	A

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	1232	708	0.000	0	0	0.0	0.0	0.000	A
Swale S - Swale Way South	368	92	127	1315	0.280	369	1105	0.5	0.4	3.806	A
Swale W - Swale Way West	1093	273	36	1445	0.757	1338	460	64.7	3.5	70.181	F
Barge - Barge Way	163	41	1069	595	0.273	163	305	0.5	0.4	8.345	A

# 2031 + K3 and WKN Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	12.30	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D28	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	0	100.000
Swa S - Swale Way South		ONE HOUR	✓	1049	100.000
Swa W - Swale Way West		ONE HOUR	✓	698	100.000
Barge - Barge Way		ONE HOUR	✓	361	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	1	973	75
	Swa W - Swale Way West	0	501	0	197
	Barge - Barge Way	0	57	304	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	0	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	0	11	0	46

Barge - Barge Way	0	21	36	0
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## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.00	0.00	0.0	A	0	0
Swa S - Swale Way South	0.86	19.34	5.9	C	963	1444
Swa W - Swale Way West	0.58	6.42	1.4	A	640	961
Barge - Barge Way	0.42	6.46	0.7	A	331	497

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	646	1082	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	790	197	228	1423	0.555	785	419	0.0	1.2	5.601	A
Swa W - Swale Way West	525	131	57	1345	0.391	523	956	0.0	0.6	4.369	A
Barge - Barge Way	272	68	376	1046	0.260	270	204	0.0	0.3	4.634	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	775	989	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	273	1386	0.680	940	502	1.2	2.1	8.000	A
Swa W - Swale Way West	627	157	68	1338	0.469	627	1144	0.6	0.9	5.053	A
Barge - Barge Way	325	81	451	1007	0.322	324	244	0.3	0.5	5.266	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	948	864	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	334	1337	0.864	1141	614	2.1	5.6	17.258	C
Swa W - Swale Way West	769	192	83	1330	0.578	767	1392	0.9	1.3	6.371	A
Barge - Barge Way	397	99	551	955	0.416	397	298	0.5	0.7	6.432	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	950	863	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	1155	289	335	1336	0.864	1154	615	5.6	5.9	19.340	C
Swa W - Swale Way West	769	192	84	1329	0.578	768	1405	1.3	1.4	6.420	A
Barge - Barge Way	397	99	553	955	0.416	397	299	0.7	0.7	6.461	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	778	987	0.000	0	0	0.0	0.0	0.000	A
Swa S - Swale Way South	943	236	274	1385	0.681	958	504	5.9	2.2	8.702	A
Swa W - Swale Way West	627	157	69	1337	0.469	629	1163	1.4	0.9	5.097	A
Barge - Barge Way	325	81	453	1006	0.323	325	246	0.7	0.5	5.294	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	0	0	651	1078	0.000	0	0	0.0	0.0	0.000	A
Swale S - Swale Way South	790	197	229	1421	0.556	793	422	2.2	1.3	5.766	A
Swale W - Swale Way West	525	131	57	1344	0.391	526	965	0.9	0.6	4.407	A
Barge - Barge Way	272	68	379	1044	0.260	272	205	0.5	0.4	4.666	A

# 2031 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	254.52	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D29	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	76	100.000
Swa S - Swale Way South		ONE HOUR	✓	492	100.000
Swa W - Swale Way West		ONE HOUR	✓	1572	100.000
Barge - Barge Way		ONE HOUR	✓	207	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	76	0
	Swa S - Swale Way South	1	1	444	46
	Swa W - Swale Way West	128	1158	2	284
	Barge - Barge Way	0	50	156	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way

From	Site - Site Access	0	0	21	0
	Swa S - Swale Way South	0	0	18	24
	Swa W - Swale Way West	11	7	50	36
	Barge - Barge Way	0	20	69	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.16	7.91	0.2	A	70	105
Swa S - Swale Way South	0.44	5.30	0.8	A	451	677
Swa W - Swale Way West	1.20	394.03	160.8	F	1442	2164
Barge - Barge Way	0.41	11.08	0.7	B	190	285

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	57	14	1017	703	0.081	57	96	0.0	0.1	5.572	A
Swa S - Swale Way South	370	93	176	1288	0.288	369	898	0.0	0.4	3.912	A
Swa W - Swale Way West	1183	296	37	1453	0.814	1167	508	0.0	4.1	11.984	B
Barge - Barge Way	156	39	958	649	0.240	155	246	0.0	0.3	7.271	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	68	17	1197	599	0.114	68	112	0.1	0.1	6.774	A
Swa S - Swale Way South	442	111	211	1259	0.351	442	1055	0.4	0.5	4.400	A
Swa W - Swale Way West	1413	353	44	1448	0.976	1370	608	4.1	14.9	34.331	D
Barge - Barge Way	186	47	1124	578	0.322	185	290	0.3	0.5	9.164	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	84	21	1289	541	0.155	83	118	0.1	0.2	7.868	A
Swa S - Swale Way South	542	135	257	1221	0.444	541	1115	0.5	0.8	5.282	A
Swa W - Swale Way West	1731	433	54	1441	1.201	1437	744	14.9	88.4	138.193	F
Barge - Barge Way	228	57	1180	554	0.411	227	311	0.5	0.7	10.978	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	84	21	1292	539	0.155	84	118	0.2	0.2	7.911	A
Swa S - Swale Way South	542	135	258	1221	0.444	542	1118	0.8	0.8	5.302	A
Swa W - Swale Way West	1731	433	54	1441	1.201	1441	746	88.4	160.8	316.698	F
Barge - Barge Way	228	57	1183	553	0.412	228	312	0.7	0.7	11.076	B

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	68	17	1250	571	0.120	69	118	0.2	0.1	7.161	A
Swa S - Swale Way South	442	111	212	1258	0.352	443	1106	0.8	0.5	4.425	A

<b>Swale W - Swale Way West</b>	1413	353	44	1448	0.976	1439	611	160.8	154.3	394.034	F
<b>Barge - Barge Way</b>	186	47	1181	553	0.336	187	302	0.7	0.5	9.838	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>Site - Site Access</b>	57	14	1222	593	0.096	57	118	0.1	0.1	6.720	A
<b>Swale S - Swale Way South</b>	370	93	178	1286	0.288	371	1102	0.5	0.4	3.938	A
<b>Swale W - Swale Way West</b>	1183	296	37	1453	0.815	1444	512	154.3	89.3	305.063	F
<b>Barge - Barge Way</b>	156	39	1184	552	0.282	156	296	0.5	0.4	9.109	A



# 2031 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	15.02	C

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D30	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	97	100.000
Swa S - Swale Way South		ONE HOUR	✓	1050	100.000
Swa W - Swale Way West		ONE HOUR	✓	742	100.000
Barge - Barge Way		ONE HOUR	✓	341	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	97	0
	Swa S - Swale Way South	0	1	974	75
	Swa W - Swale Way West	46	503	0	193
	Barge - Barge Way	0	57	284	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way

From	Site - Site Access	0	0	8	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	13	11	0	45
	Barge - Barge Way	0	21	36	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.13	5.09	0.2	A	89	134
Swa S - Swale Way South	0.90	26.00	7.9	D	963	1445
Swa W - Swale Way West	0.61	6.89	1.5	A	681	1021
Barge - Barge Way	0.40	6.52	0.7	A	313	469

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	73	18	633	1012	0.072	73	34	0.0	0.1	3.833	A
Swa S - Swale Way South	790	198	285	1388	0.569	785	420	0.0	1.3	5.921	A
Swa W - Swale Way West	559	140	57	1355	0.412	556	1014	0.0	0.7	4.491	A
Barge - Barge Way	257	64	412	1028	0.250	255	201	0.0	0.3	4.652	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	87	22	758	928	0.094	87	41	0.1	0.1	4.279	A
Swa S - Swale Way South	944	236	342	1345	0.702	940	504	1.3	2.3	8.807	A
Swa W - Swale Way West	667	167	68	1348	0.495	666	1214	0.7	1.0	5.267	A
Barge - Barge Way	307	77	494	986	0.311	306	240	0.3	0.4	5.293	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	107	27	928	816	0.131	107	51	0.1	0.1	5.076	A
Swa S - Swale Way South	1156	289	419	1286	0.899	1137	616	2.3	7.2	21.700	C
Swa W - Swale Way West	817	204	82	1340	0.610	815	1473	1.0	1.5	6.822	A
Barge - Barge Way	375	94	604	929	0.404	375	293	0.4	0.7	6.486	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	107	27	930	814	0.131	107	51	0.1	0.2	5.089	A
Swa S - Swale Way South	1156	289	419	1285	0.899	1153	618	7.2	7.9	26.000	D
Swa W - Swale Way West	817	204	83	1339	0.610	817	1489	1.5	1.5	6.888	A
Barge - Barge Way	375	94	606	928	0.405	375	295	0.7	0.7	6.516	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	87	22	762	926	0.094	87	41	0.2	0.1	4.293	A
Swa S - Swale Way South	944	236	343	1344	0.702	966	506	7.9	2.4	10.033	B

<b>Swale W - Swale Way West</b>	667	167	70	1347	0.495	669	1239	1.5	1.0	5.327	A
<b>Barge - Barge Way</b>	307	77	496	984	0.311	307	243	0.7	0.5	5.326	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>Site - Site Access</b>	73	18	637	1009	0.072	73	35	0.1	0.1	3.847	A
<b>Swale S - Swale Way South</b>	790	198	287	1387	0.570	795	423	2.4	1.3	6.126	A
<b>Swale W - Swale Way West</b>	559	140	58	1354	0.412	560	1025	1.0	0.7	4.536	A
<b>Barge - Barge Way</b>	257	64	415	1026	0.250	257	202	0.5	0.3	4.682	A

# 2031 + WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	268.95	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D31	2031 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	76	100.000
Swa S - Swale Way South		ONE HOUR	✓	492	100.000
Swa W - Swale Way West		ONE HOUR	✓	1578	100.000
Barge - Barge Way		ONE HOUR	✓	213	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	76	0
	Swa S - Swale Way South	1	1	444	46
	Swa W - Swale Way West	128	1158	2	290
	Barge - Barge Way	0	50	162	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way

From	Site - Site Access	0	0	21	0
	Swa S - Swale Way South	0	0	18	24
	Swa W - Swale Way West	11	7	50	38
	Barge - Barge Way	0	20	70	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.16	7.95	0.2	A	70	105
Swa S - Swale Way South	0.45	5.36	0.8	A	451	677
Swa W - Swale Way West	1.21	417.10	168.1	F	1448	2172
Barge - Barge Way	0.42	11.31	0.7	B	195	293

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	57	14	1021	699	0.082	57	96	0.0	0.1	5.608	A
Swa S - Swale Way South	370	93	180	1283	0.289	369	897	0.0	0.4	3.932	A
Swa W - Swale Way West	1188	297	37	1447	0.821	1171	512	0.0	4.2	12.369	B
Barge - Barge Way	160	40	957	644	0.249	159	250	0.0	0.3	7.401	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	68	17	1200	596	0.115	68	112	0.1	0.1	6.821	A
Swa S - Swale Way South	442	111	216	1254	0.353	442	1052	0.4	0.5	4.431	A
Swa W - Swale Way West	1419	355	44	1442	0.984	1371	614	4.2	16.1	36.461	E
Barge - Barge Way	191	48	1121	575	0.333	191	294	0.3	0.5	9.354	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	84	21	1287	539	0.155	83	117	0.1	0.2	7.905	A
Swa S - Swale Way South	542	135	264	1214	0.446	541	1107	0.5	0.8	5.335	A
Swa W - Swale Way West	1737	434	54	1436	1.210	1432	751	16.1	92.5	145.295	F
Barge - Barge Way	235	59	1171	554	0.423	234	315	0.5	0.7	11.206	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	84	21	1291	537	0.156	84	118	0.2	0.2	7.946	A
Swa S - Swale Way South	542	135	265	1214	0.446	542	1109	0.8	0.8	5.356	A
Swa W - Swale Way West	1737	434	54	1436	1.210	1435	753	92.5	168.1	332.171	F
Barge - Barge Way	235	59	1174	553	0.424	234	315	0.7	0.7	11.307	B

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	68	17	1247	570	0.120	69	117	0.2	0.1	7.178	A
Swa S - Swale Way South	442	111	217	1252	0.353	443	1098	0.8	0.6	4.454	A

<b>Swale W - Swale Way West</b>	1419	355	44	1442	0.984	1434	617	168.1	164.3	417.100	F
<b>Barge - Barge Way</b>	191	48	1172	553	0.346	192	306	0.7	0.5	9.991	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>Site - Site Access</b>	57	14	1219	593	0.096	57	117	0.1	0.1	6.720	A
<b>Swale S - Swale Way South</b>	370	93	182	1281	0.289	371	1094	0.6	0.4	3.957	A
<b>Swale W - Swale Way West</b>	1188	297	37	1447	0.821	1438	516	164.3	101.7	334.034	F
<b>Barge - Barge Way</b>	160	40	1176	552	0.291	161	300	0.5	0.4	9.219	A

# 2031 + WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	16.25	C

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D32	2031 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	97	100.000
Swa S - Swale Way South		ONE HOUR	✓	1050	100.000
Swa W - Swale Way West		ONE HOUR	✓	743	100.000
Barge - Barge Way		ONE HOUR	✓	359	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	97	0
	Swa S - Swale Way South	0	1	974	75
	Swa W - Swale Way West	46	503	0	194
	Barge - Barge Way	0	57	302	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way

From	Site - Site Access	0	0	8	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	13	11	0	46
	Barge - Barge Way	0	21	36	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.13	5.20	0.2	A	89	134
Swa S - Swale Way South	0.91	28.91	8.7	D	963	1445
Swa W - Swale Way West	0.61	6.95	1.6	A	682	1023
Barge - Barge Way	0.43	6.77	0.7	A	329	494

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	73	18	646	1002	0.073	73	34	0.0	0.1	3.874	A
Swa S - Swale Way South	790	198	299	1377	0.574	785	420	0.0	1.3	6.028	A
Swa W - Swale Way West	559	140	57	1351	0.414	557	1027	0.0	0.7	4.514	A
Barge - Barge Way	270	68	412	1027	0.263	269	201	0.0	0.4	4.740	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	87	22	775	916	0.095	87	41	0.1	0.1	4.342	A
Swa S - Swale Way South	944	236	358	1332	0.709	940	503	1.3	2.4	9.087	A
Swa W - Swale Way West	668	167	68	1345	0.497	667	1230	0.7	1.0	5.300	A
Barge - Barge Way	323	81	494	985	0.328	322	241	0.4	0.5	5.425	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	107	27	948	801	0.133	107	51	0.1	0.2	5.184	A
Swa S - Swale Way South	1156	289	438	1270	0.910	1134	616	2.4	7.8	23.449	C
Swa W - Swale Way West	818	205	82	1337	0.612	816	1490	1.0	1.5	6.879	A
Barge - Barge Way	395	99	604	928	0.426	394	294	0.5	0.7	6.735	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	107	27	950	799	0.134	107	51	0.2	0.2	5.199	A
Swa S - Swale Way South	1156	289	439	1269	0.911	1152	618	7.8	8.7	28.910	D
Swa W - Swale Way West	818	205	83	1336	0.612	818	1508	1.5	1.6	6.946	A
Barge - Barge Way	395	99	606	927	0.426	395	296	0.7	0.7	6.770	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	87	22	778	914	0.095	87	41	0.2	0.1	4.357	A
Swa S - Swale Way South	944	236	360	1331	0.709	969	506	8.7	2.5	10.580	B



<b>Swale W - Swale Way West</b>	668	167	70	1344	0.497	670	1258	1.6	1.0	5.362	A
<b>Barge - Barge Way</b>	323	81	496	983	0.328	324	244	0.7	0.5	5.466	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>Site - Site Access</b>	73	18	651	999	0.073	73	35	0.1	0.1	3.889	A
<b>Swale S - Swale Way South</b>	790	198	301	1376	0.575	795	423	2.5	1.4	6.250	A
<b>Swale W - Swale Way West</b>	559	140	58	1351	0.414	561	1039	1.0	0.7	4.562	A
<b>Barge - Barge Way</b>	270	68	415	1025	0.264	271	203	0.5	0.4	4.775	A

# 2031 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	272.97	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D33	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	76	100.000
Swa S - Swale Way South		ONE HOUR	✓	492	100.000
Swa W - Swale Way West		ONE HOUR	✓	1581	100.000
Barge - Barge Way		ONE HOUR	✓	216	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	76	0
	Swa S - Swale Way South	1	1	444	46
	Swa W - Swale Way West	128	1158	2	293
	Barge - Barge Way	0	50	165	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site	Swa S - Swale Way	Swa W - Swale Way	Barge - Barge

	Access	South	West	Way	
From	Site - Site Access	0	0	21	0
	Swa S - Swale Way South	0	0	18	24
	Swa W - Swale Way West	11	7	50	38
	Barge - Barge Way	0	20	71	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.16	7.99	0.2	A	70	105
Swa S - Swale Way South	0.45	5.39	0.8	A	451	677
Swa W - Swale Way West	1.21	423.98	170.4	F	1451	2176
Barge - Barge Way	0.43	11.50	0.8	B	198	297

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	57	14	1023	696	0.082	57	96	0.0	0.1	5.629	A
Swa S - Swale Way South	370	93	182	1280	0.289	369	897	0.0	0.4	3.942	A
Swa W - Swale Way West	1190	298	37	1447	0.823	1173	514	0.0	4.3	12.477	B
Barge - Barge Way	163	41	957	640	0.254	161	253	0.0	0.3	7.491	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	68	17	1201	593	0.115	68	112	0.1	0.1	6.853	A
Swa S - Swale Way South	442	111	219	1251	0.354	442	1051	0.4	0.5	4.448	A
Swa W - Swale Way West	1421	355	44	1442	0.986	1372	616	4.3	16.5	37.103	E
Barge - Barge Way	194	49	1120	572	0.339	194	297	0.3	0.5	9.491	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	84	21	1288	536	0.156	83	117	0.1	0.2	7.948	A
Swa S - Swale Way South	542	135	267	1211	0.447	541	1104	0.5	0.8	5.366	A
Swa W - Swale Way West	1741	435	54	1435	1.213	1431	754	16.5	93.9	147.434	F
Barge - Barge Way	238	59	1168	552	0.431	237	317	0.5	0.7	11.397	B

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	84	21	1291	534	0.157	84	117	0.2	0.2	7.988	A
Swa S - Swale Way South	542	135	268	1210	0.448	542	1107	0.8	0.8	5.387	A
Swa W - Swale Way West	1741	435	54	1435	1.213	1435	756	93.9	170.4	336.799	F
Barge - Barge Way	238	59	1171	551	0.432	238	318	0.7	0.8	11.502	B

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	68	17	1247	569	0.120	69	117	0.2	0.1	7.201	A

<b>Swale S - Swale Way South</b>	442	111	220	1249	0.354	443	1096	0.8	0.6	4.472	A
<b>Swale W - Swale Way West</b>	1421	355	44	1442	0.986	1433	619	170.4	167.4	423.980	F
<b>Barge - Barge Way</b>	194	49	1169	551	0.352	195	308	0.8	0.6	10.126	B

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>Site - Site Access</b>	57	14	1219	592	0.097	57	117	0.1	0.1	6.739	A
<b>Swale S - Swale Way South</b>	370	93	185	1278	0.290	371	1092	0.6	0.4	3.970	A
<b>Swale W - Swale Way West</b>	1190	298	37	1447	0.823	1438	519	167.4	105.5	342.672	F
<b>Barge - Barge Way</b>	163	41	1173	550	0.296	163	302	0.6	0.4	9.325	A

# 2031 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	Site, Swa S, Swa W, Barge	16.40	C

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D34	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
Site - Site Access		ONE HOUR	✓	97	100.000
Swa S - Swale Way South		ONE HOUR	✓	1050	100.000
Swa W - Swale Way West		ONE HOUR	✓	746	100.000
Barge - Barge Way		ONE HOUR	✓	361	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		Site - Site Access	Swa S - Swale Way South	Swa W - Swale Way West	Barge - Barge Way
From	Site - Site Access	0	0	97	0
	Swa S - Swale Way South	0	1	974	75
	Swa W - Swale Way West	46	503	0	197
	Barge - Barge Way	0	57	304	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		Site - Site	Swa S - Swale Way	Swa W - Swale Way	Barge - Barge

	Access	South	West	Way	
From	Site - Site Access	0	0	8	0
	Swa S - Swale Way South	0	0	5	11
	Swa W - Swale Way West	13	11	0	46
	Barge - Barge Way	0	21	36	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
Site - Site Access	0.13	5.21	0.2	A	89	134
Swa S - Swale Way South	0.91	29.27	8.8	D	963	1445
Swa W - Swale Way West	0.62	7.01	1.6	A	685	1027
Barge - Barge Way	0.43	6.80	0.7	A	331	497

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	73	18	648	1001	0.073	73	34	0.0	0.1	3.879	A
Swa S - Swale Way South	790	198	300	1376	0.574	785	420	0.0	1.3	6.040	A
Swa W - Swale Way West	562	140	57	1350	0.416	559	1029	0.0	0.7	4.532	A
Barge - Barge Way	272	68	412	1027	0.265	270	204	0.0	0.4	4.750	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	87	22	776	915	0.095	87	41	0.1	0.1	4.349	A
Swa S - Swale Way South	944	236	360	1330	0.710	940	503	1.3	2.4	9.119	A
Swa W - Swale Way West	671	168	68	1344	0.499	670	1232	0.7	1.0	5.330	A
Barge - Barge Way	325	81	494	985	0.330	324	244	0.4	0.5	5.444	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	107	27	950	799	0.134	107	51	0.1	0.2	5.197	A
Swa S - Swale Way South	1156	289	440	1268	0.911	1134	616	2.4	7.9	23.656	C
Swa W - Swale Way West	821	205	82	1336	0.615	819	1492	1.0	1.6	6.935	A
Barge - Barge Way	397	99	604	928	0.428	396	297	0.5	0.7	6.764	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	107	27	952	797	0.134	107	51	0.2	0.2	5.211	A
Swa S - Swale Way South	1156	289	441	1268	0.912	1152	618	7.9	8.8	29.266	D
Swa W - Swale Way West	821	205	83	1335	0.615	821	1510	1.6	1.6	7.006	A
Barge - Barge Way	397	99	606	927	0.429	397	299	0.7	0.7	6.799	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
Site - Site Access	87	22	780	912	0.096	87	41	0.2	0.1	4.366	A

<b>Swale S - Swale Way South</b>	944	236	362	1329	0.710	969	506	8.8	2.5	10.647	B
<b>Swale W - Swale Way West</b>	671	168	70	1343	0.500	673	1260	1.6	1.0	5.395	A
<b>Barge - Barge Way</b>	325	81	496	983	0.330	326	247	0.7	0.5	5.482	A

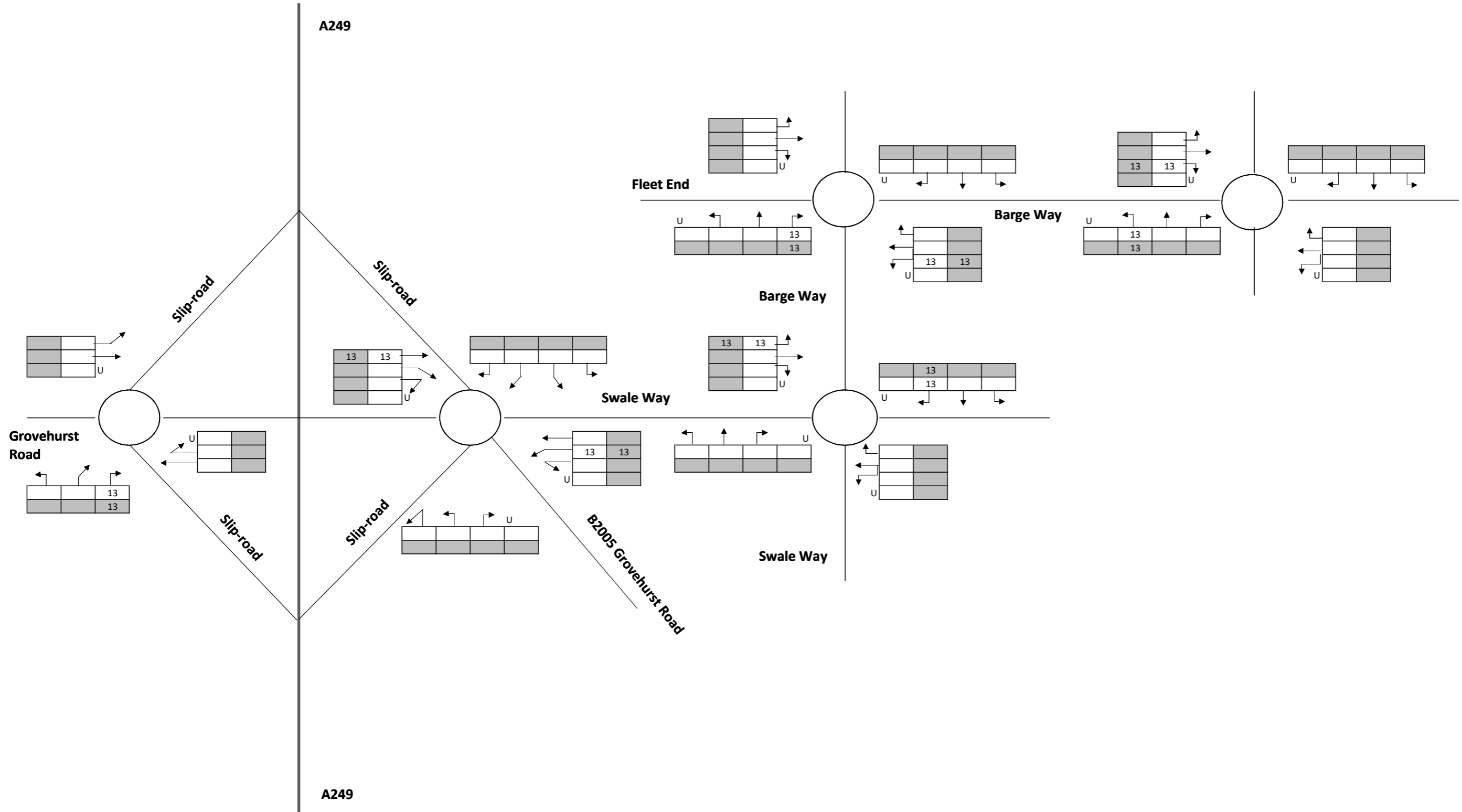
## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>Site - Site Access</b>	73	18	653	997	0.073	73	35	0.1	0.1	3.896	A
<b>Swale S - Swale Way South</b>	790	198	302	1375	0.575	795	423	2.5	1.4	6.261	A
<b>Swale W - Swale Way West</b>	562	140	58	1350	0.416	563	1040	1.0	0.7	4.580	A
<b>Barge - Barge Way</b>	272	68	415	1025	0.265	272	205	0.5	0.4	4.783	A

**APPENDIX AL: SENSITIVITY K3 OPERATIONAL, WKN OPERATIONAL AND K3 OPERATIONAL PLUS WKN OPERATIONAL AM AND PM PEAK HOUR TRAFFIC FLOW DIAGRAMS**

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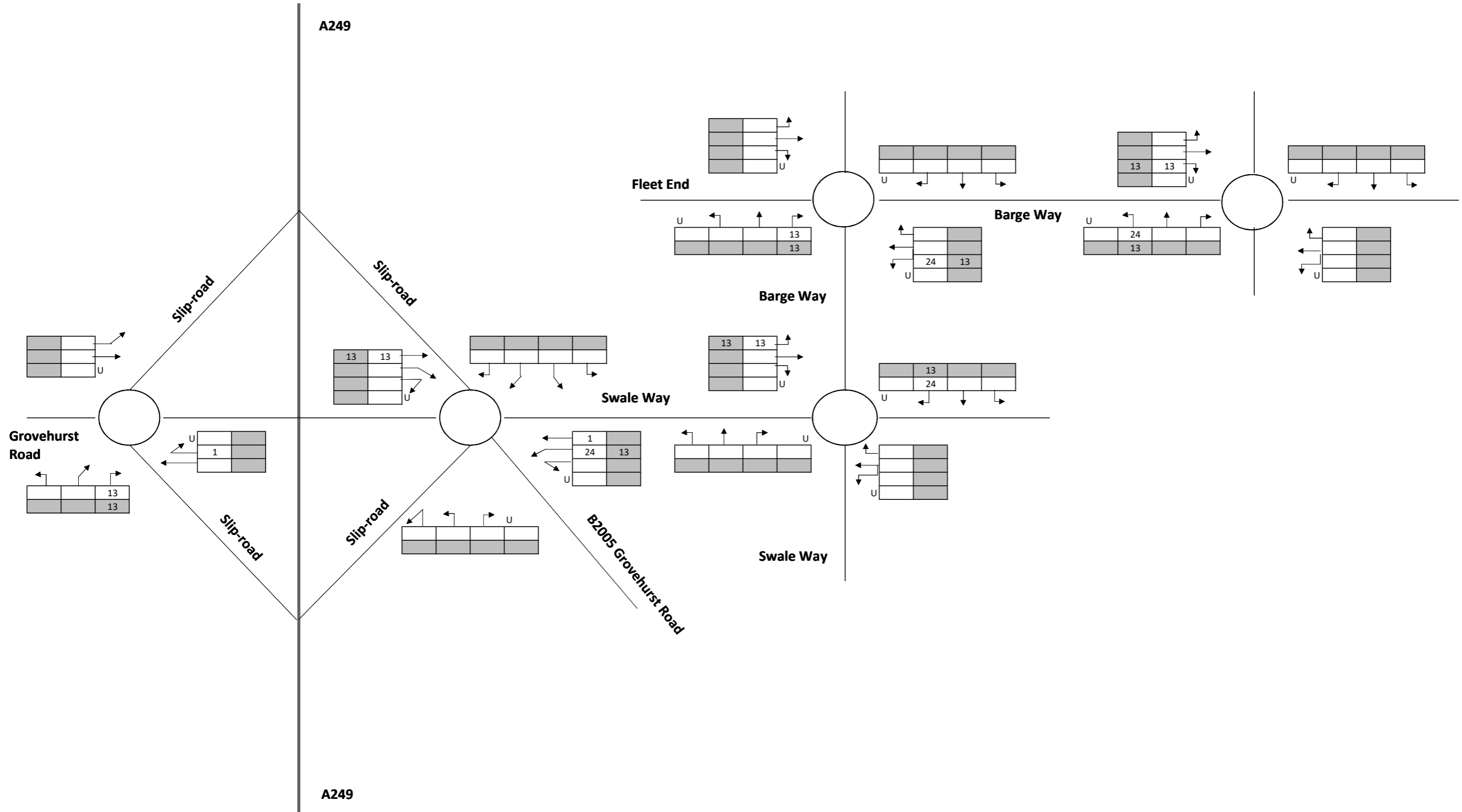




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Vehicles  
 HGVs

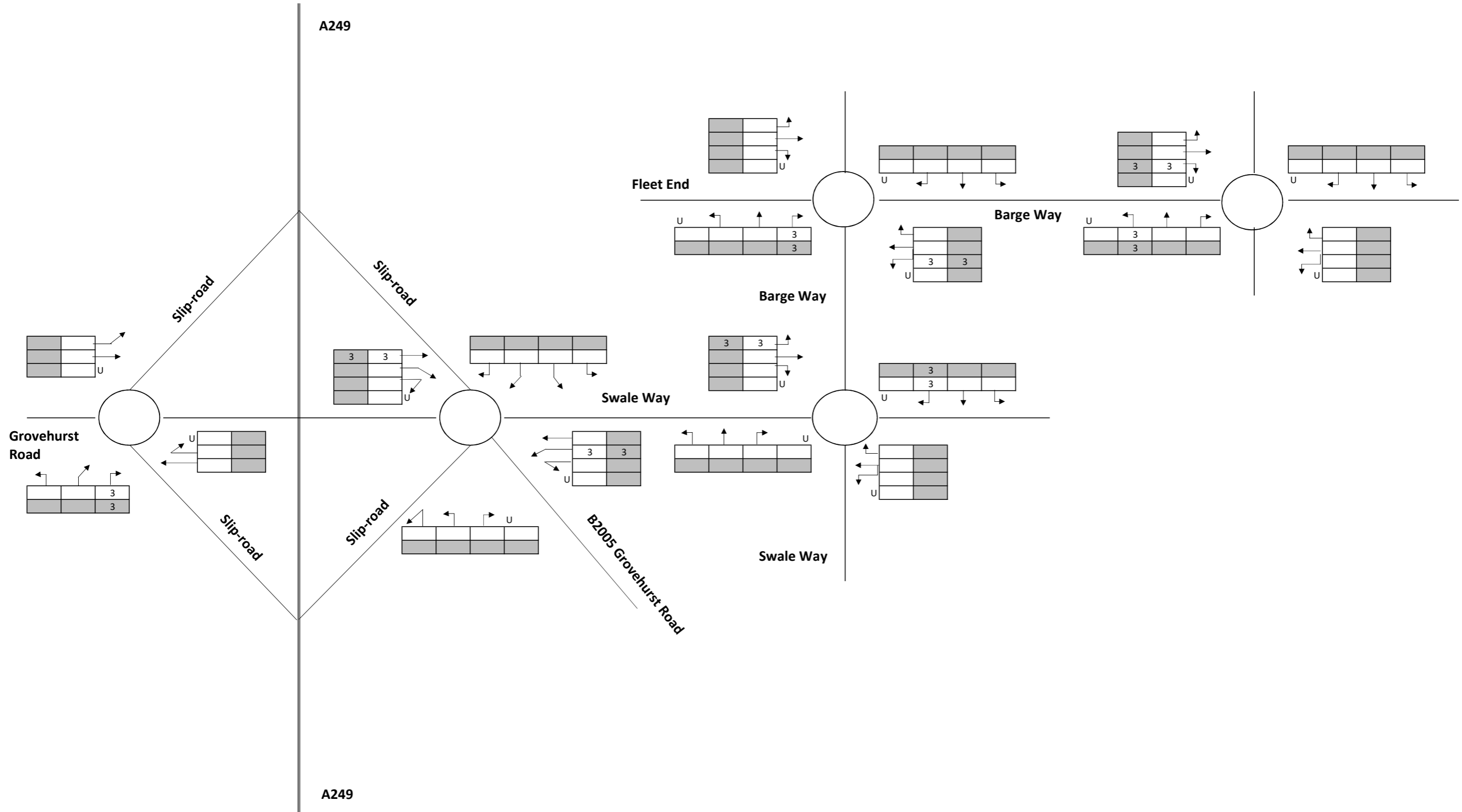
**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: Sensitivity\_WKN Operational and K3 Operational AM Peak Hour



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Vehicles  
 HGVs

**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: Sensitivity\_WKN Operational and K3 Operational PM  
           Peak Hour



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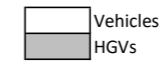
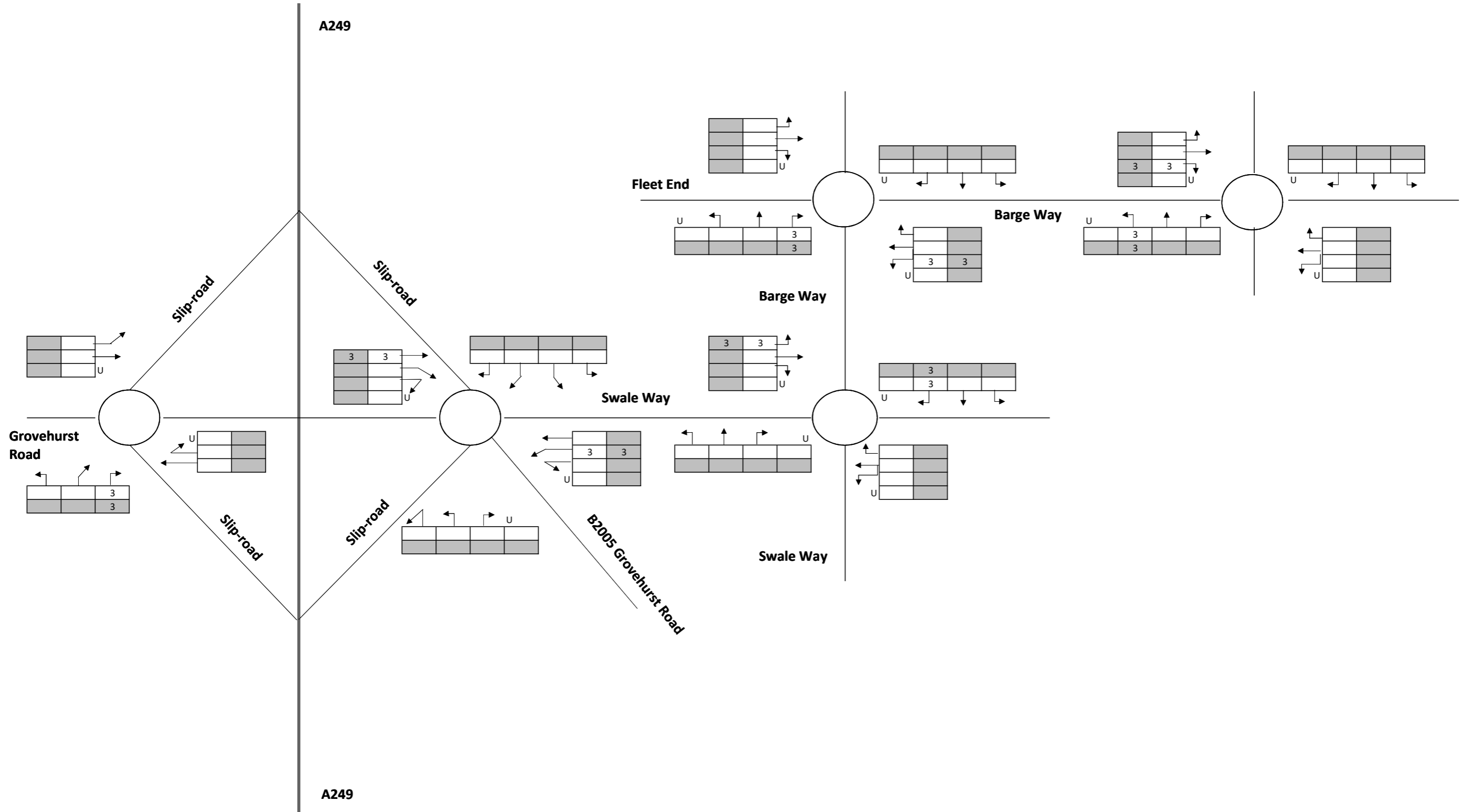


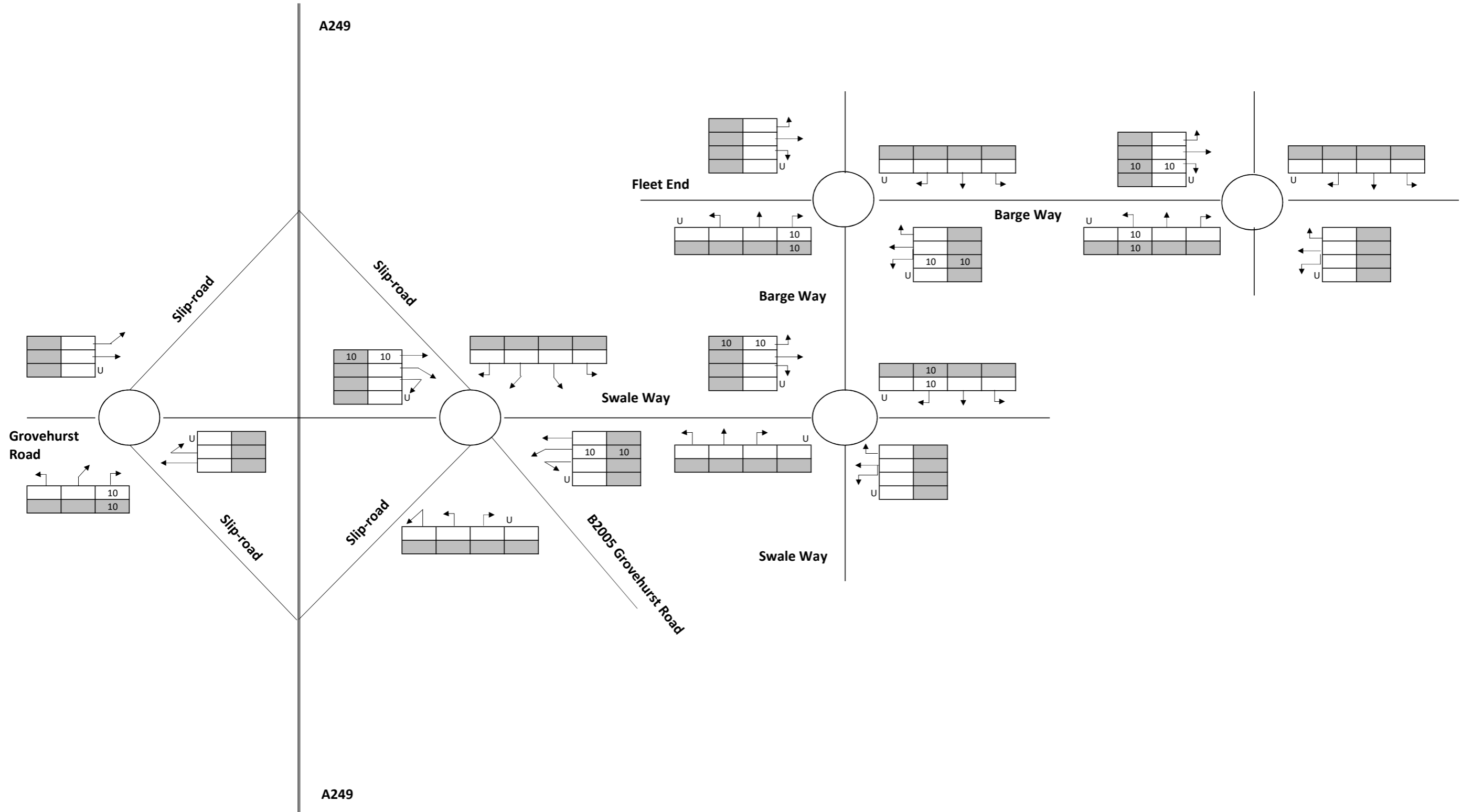
Figure:  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: Sensitivity\_K3 Operational AM Peak Hour



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 Vehicles  
 HGVs

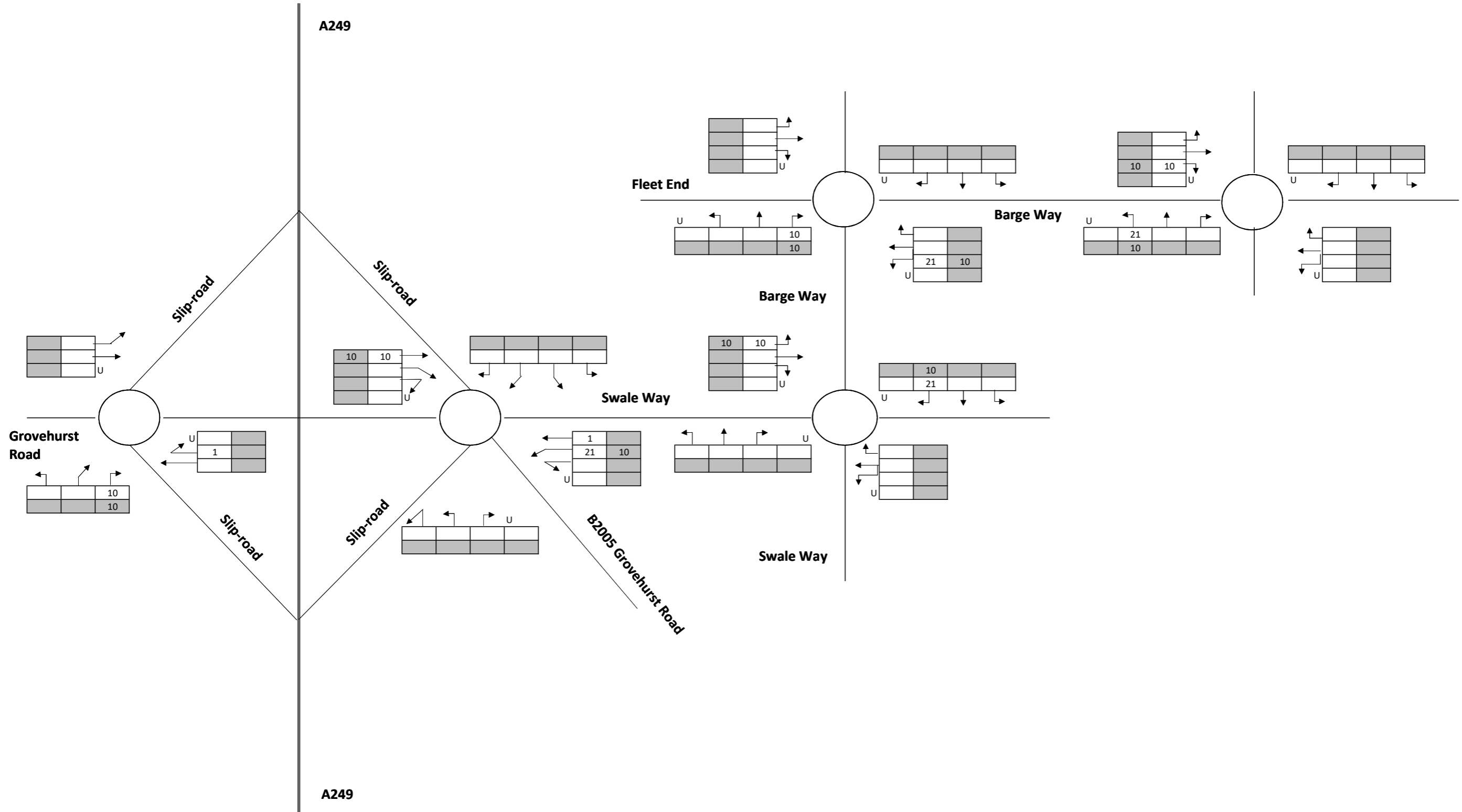
**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: **Sensitivity\_K3 Operational PM Peak Hour**



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**Figure:**  
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 Project: K3 Power Upgrade and WKN  
 Title: Sensitivity\_WKN Operational AM Peak Hour



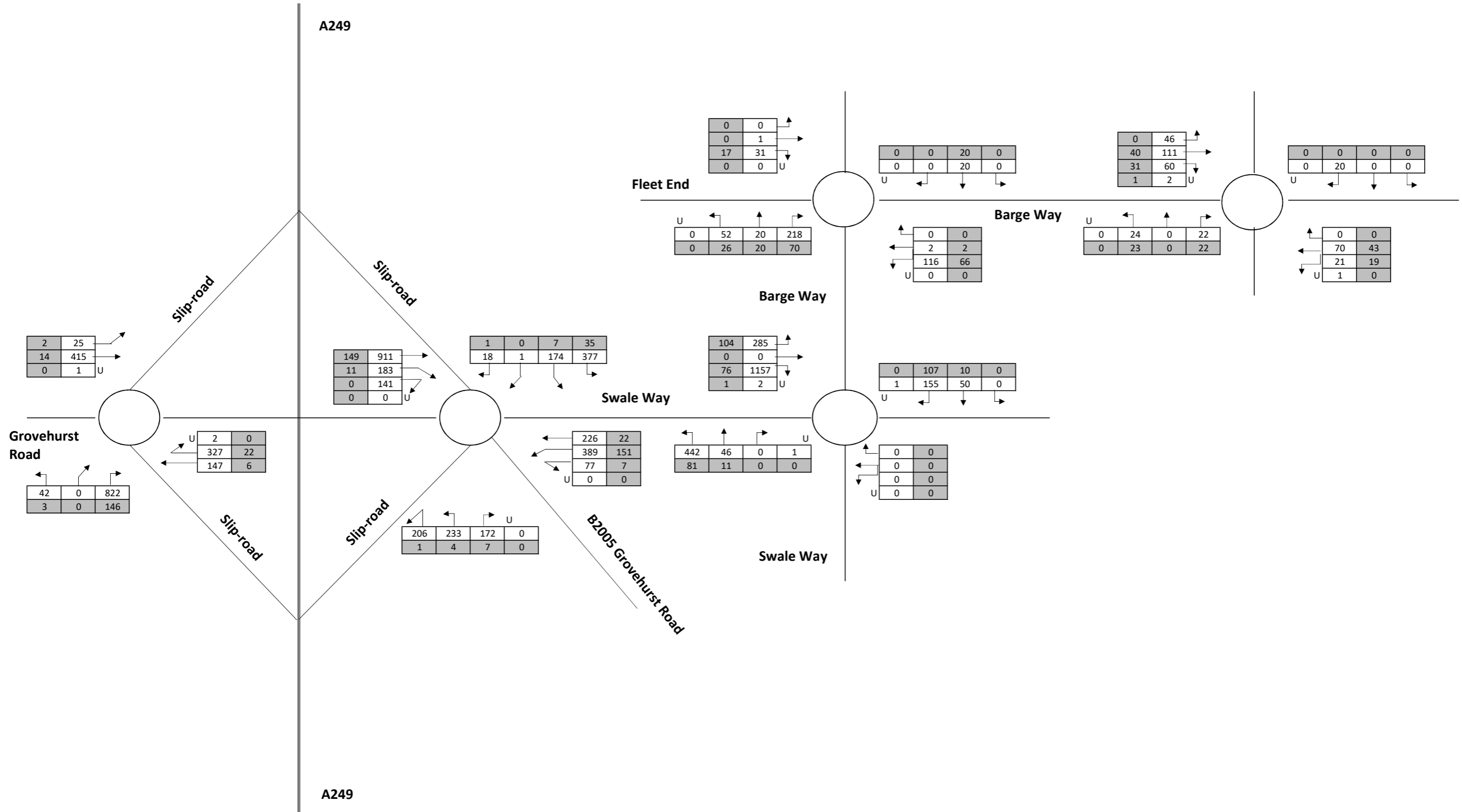
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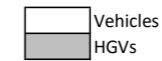
**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: Sensitivity\_WKN Operational PM Peak Hour

**APPENDIX AM: SENSITIVITY 2024 BASELINE AND K3  
OPERATIONAL AM AND PM PEAK HOUR TRAFFIC FLOW  
DIAGRAMS**

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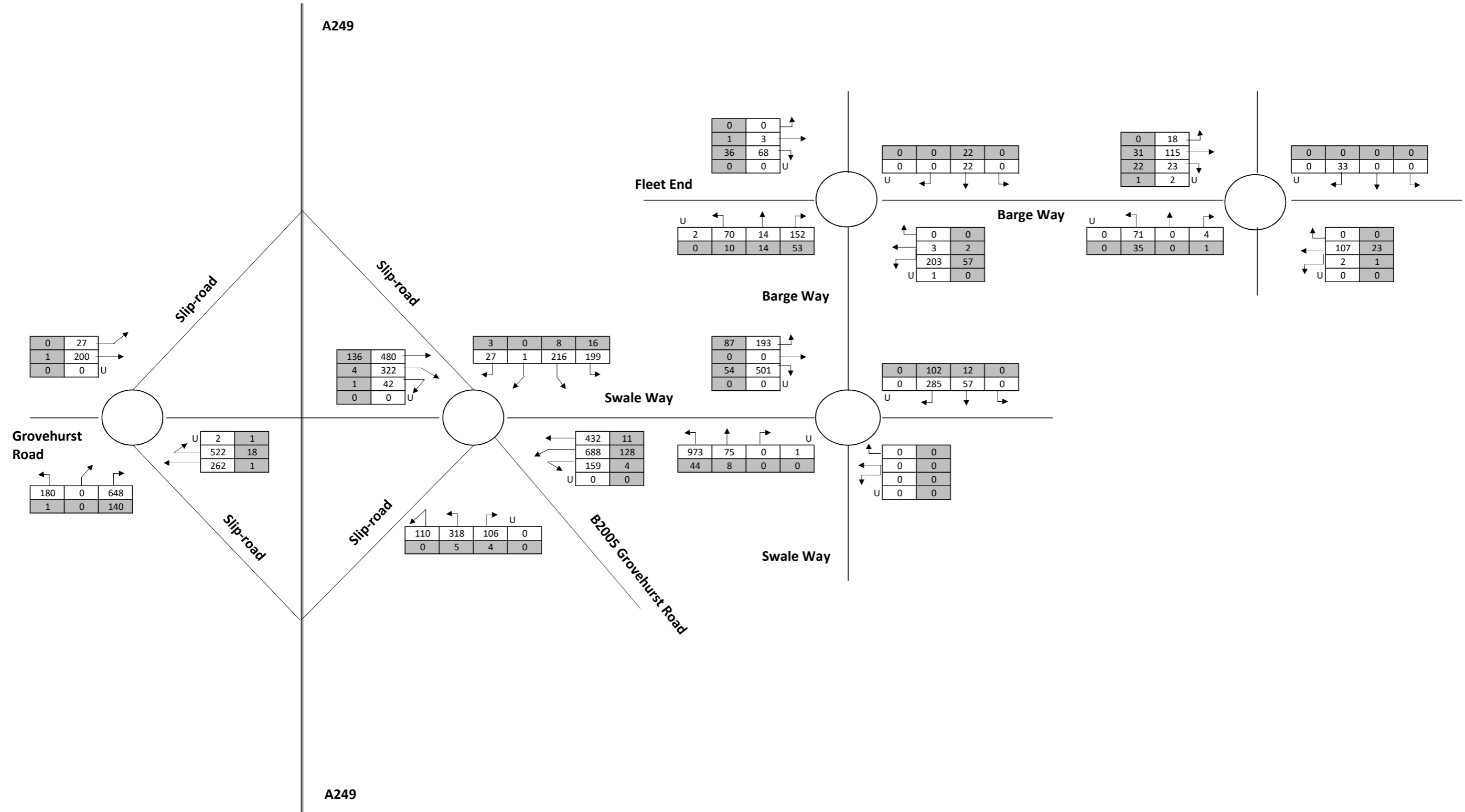


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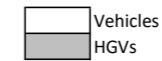


**Figure:**  
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 Project: K3 Power Upgrade and WKN  
 Title: Sensitivity\_2024 Baseline + K3 Operational AM Peak Hour





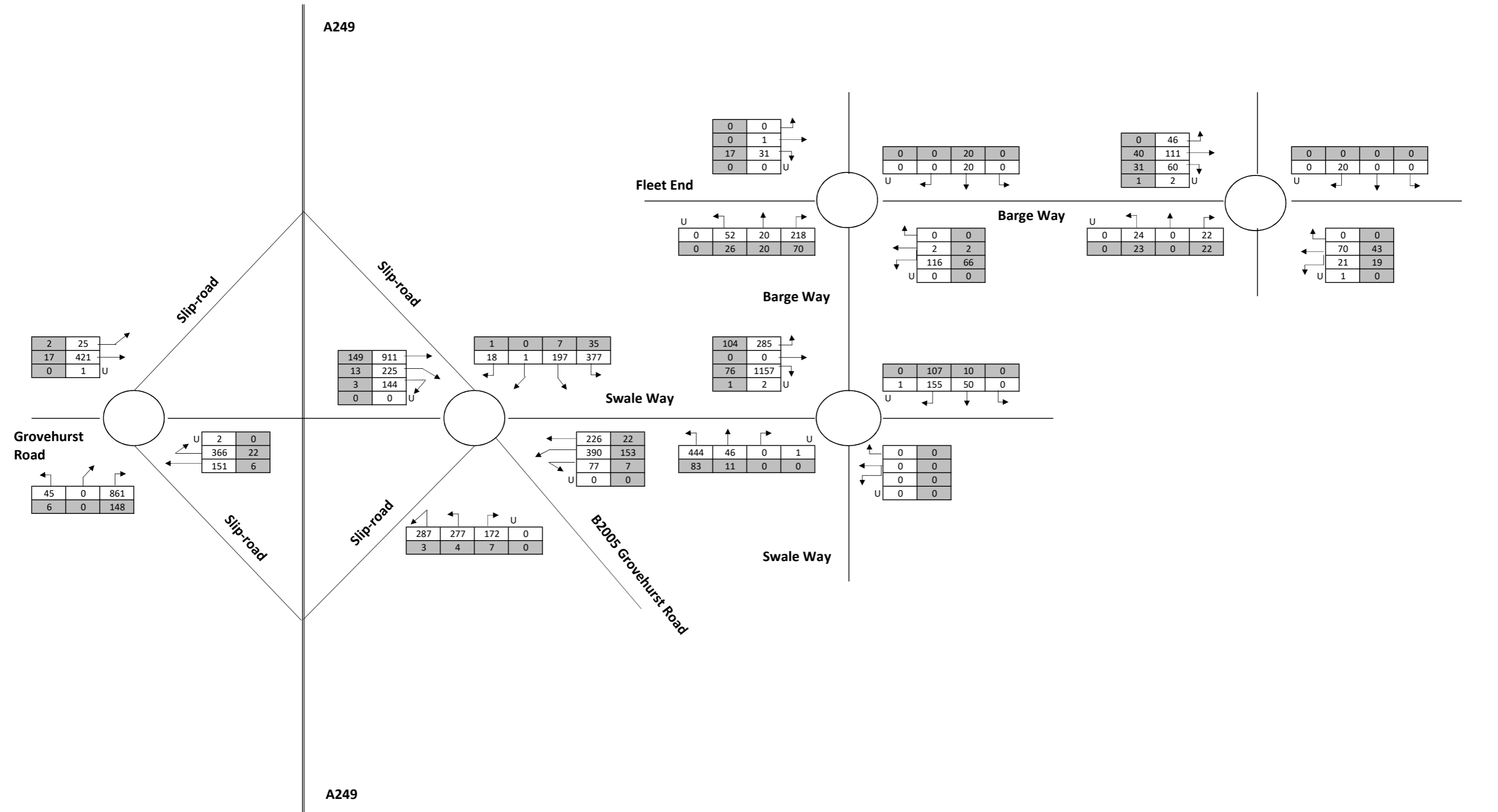
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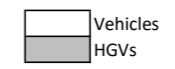
**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: Sensitivity\_2024 Baseline + K3 Operational PM Peak Hour

**APPENDIX AN: SENSITIVITY 2024 BASELINE, K3  
OPERATIONAL AND 2024 CUMULATIVE DEVELOPMENT AM  
AND PM PEAK HOUR TRAFFIC FLOW DIAGRAMS**

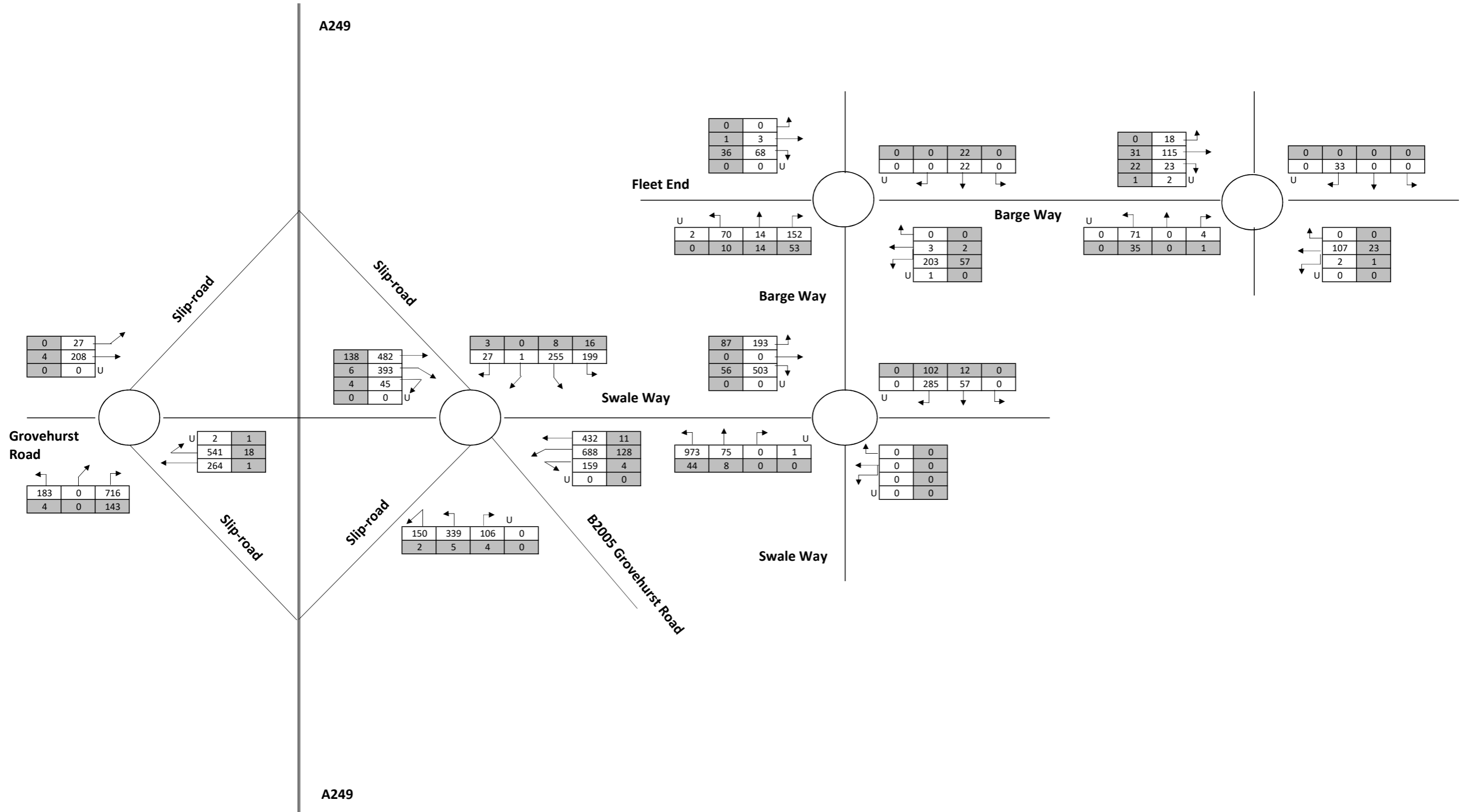
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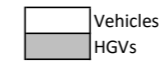
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**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: Sensitivity\_2024 Baseline + K3 Operational + 2024 Cumulative Development AM Peak Hour



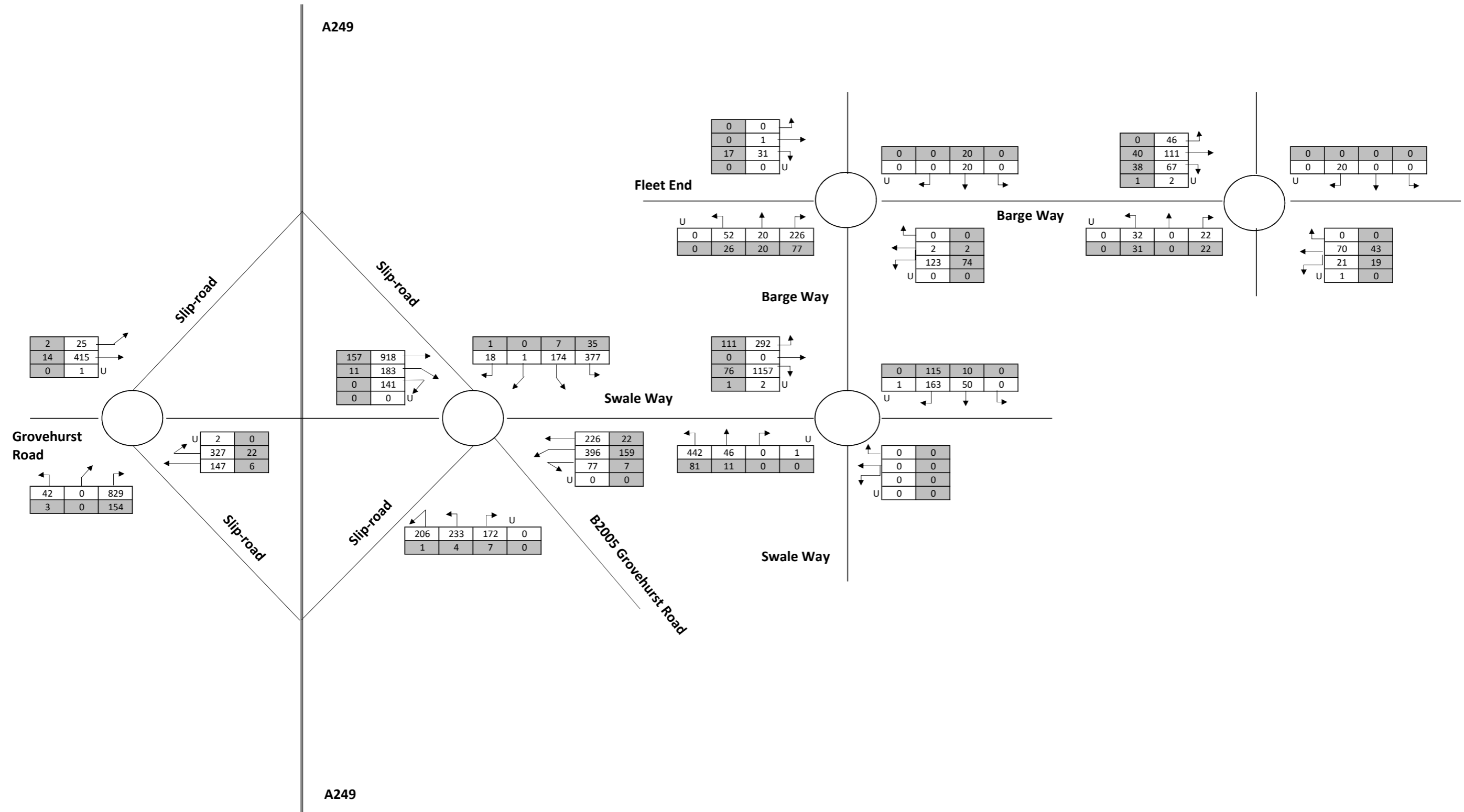
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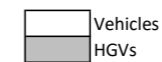
**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: Sensitivity\_2024 Baseline + K3 Operational + 2024 Cumulative Development PM Peak Hour

**APPENDIX AO: SENSITIVITY 2024 BASELINE AND WKN  
OPERATIONAL AM AND PM PEAK HOUR TRAFFIC FLOW  
DIAGRAMS**

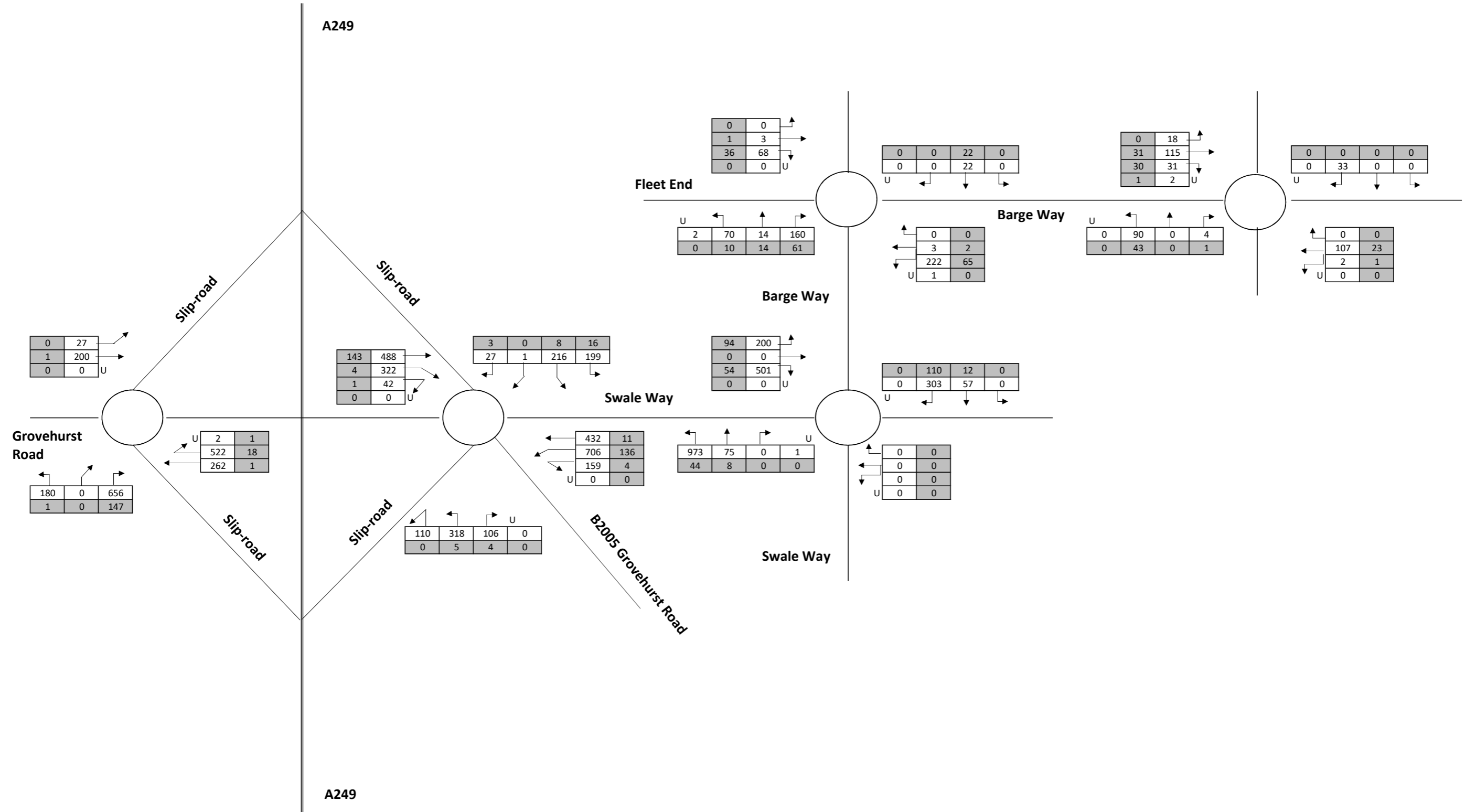
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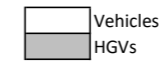
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**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: Sensitivity\_2024 Baseline + WKN Operational AM Peak Hour



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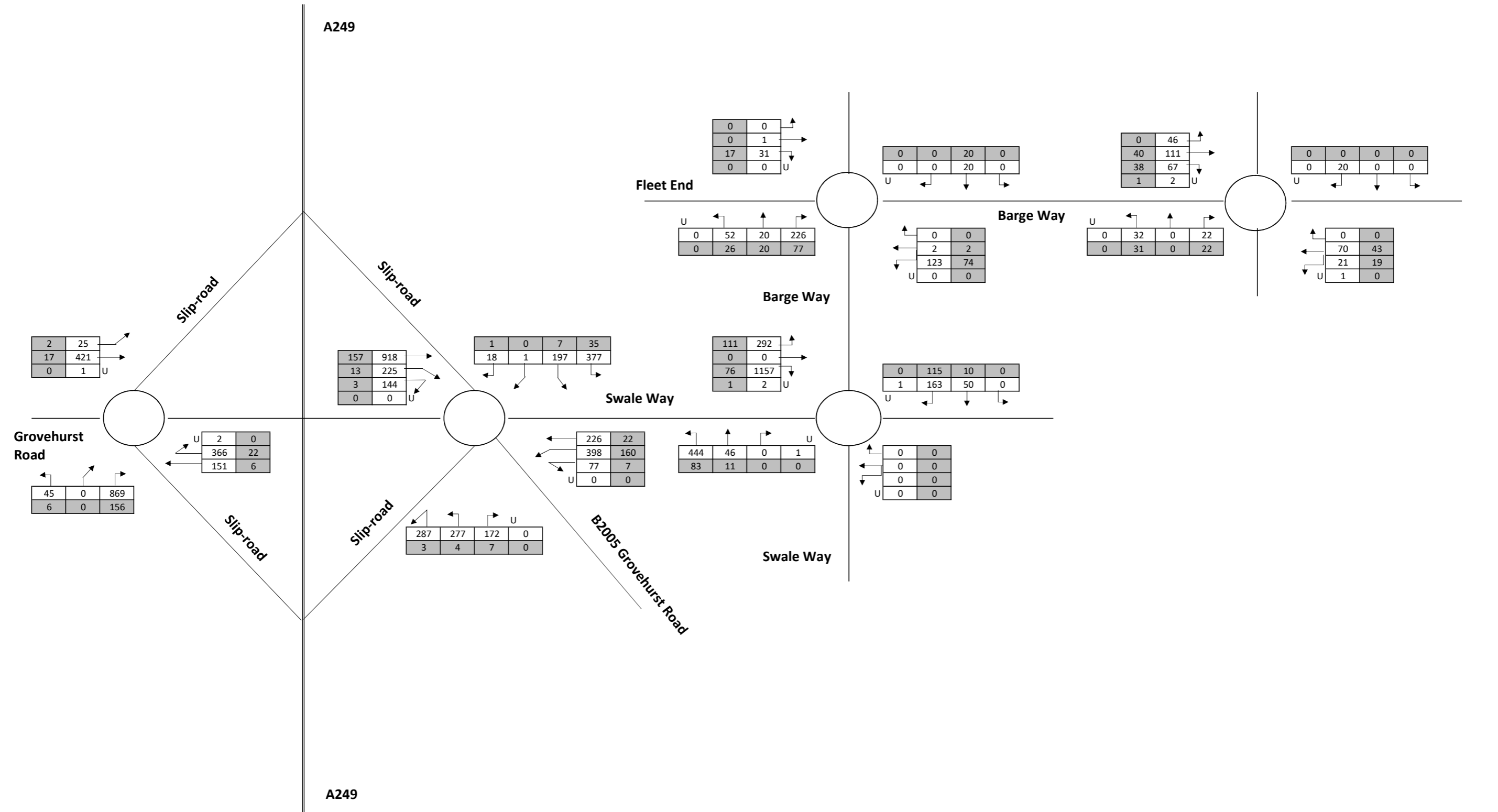


**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: Sensitivity\_2024 Baseline + WKN Operational PM Peak Hour

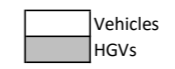
**APPENDIX AP: SENSITIVITY 2024 BASELINE, WKN OPERATIONAL AND 2024 CUMULATIVE DEVELOPMENT AM AND PM TRAFFIC FLOW DIAGRAMS**

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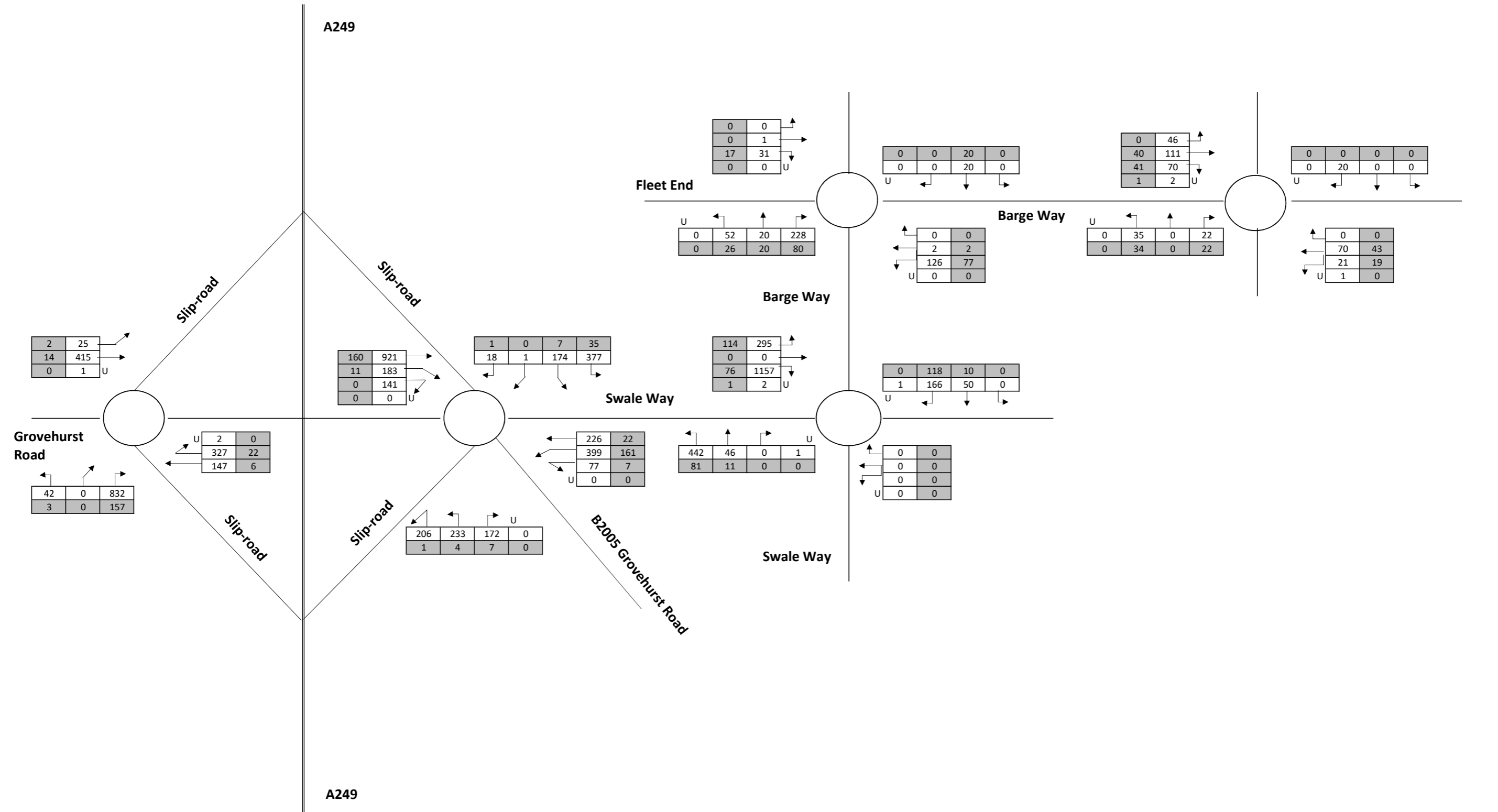


**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: Sensitivity\_2024 Baseline + WKN Operational + 2024 Cumulative Development AM Peak Hour



**APPENDIX AQ: SENSITIVITY 2024 BASELINE, K3  
OPERATIONAL AND WKN OPERATIONAL AM AND PM PEAK  
HOUR TRAFFIC FLOW DIAGRAMS**

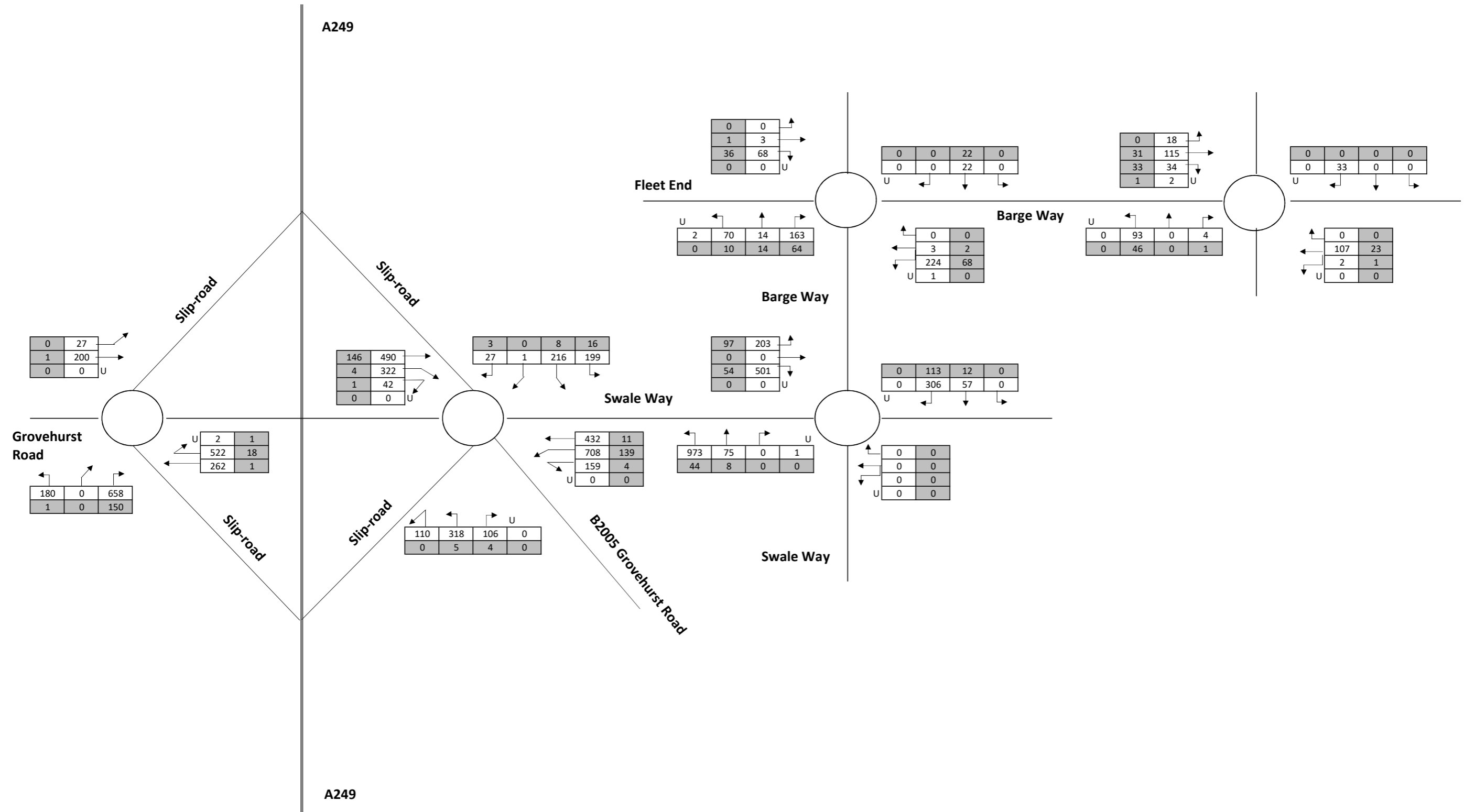
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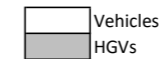
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□ Vehicles  
 ■ HGVs

**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: Sensitivity\_2024 Baseline + K3 and WKN Operational AM Peak Hour



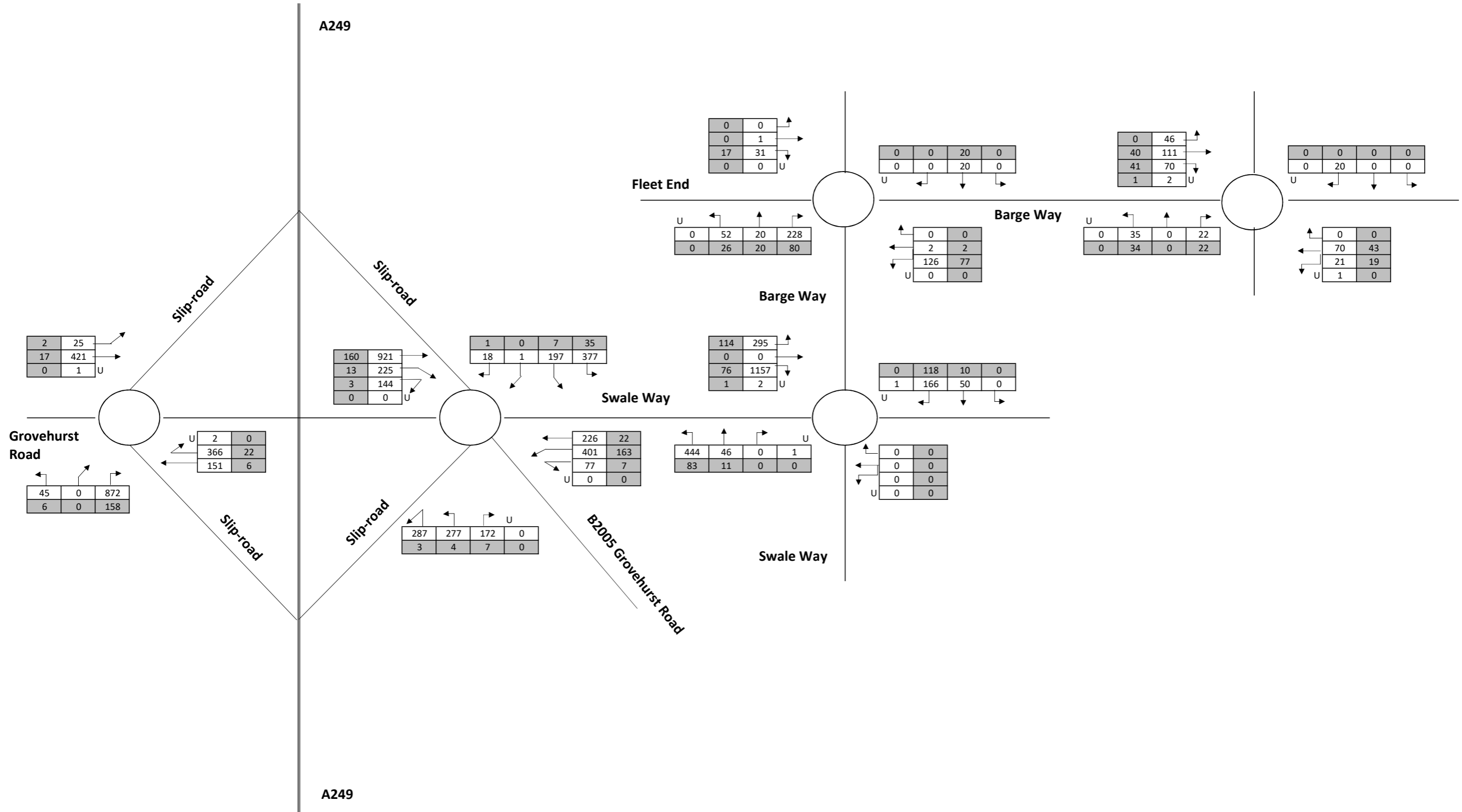
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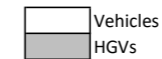
**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: Sensitivity\_2024 Baseline + K3 and WKN Operational PM Peak Hour

**APPENDIX AR: SENSITIVITY 2024 BASELINE, K3  
OPERATIONAL PLUS WKN OPERATIONAL AND 2024  
CUMULATIVE DEVELOPMENT AM AND PM PEAK HOUR  
TRAFFIC FLOW DIAGRAMS**

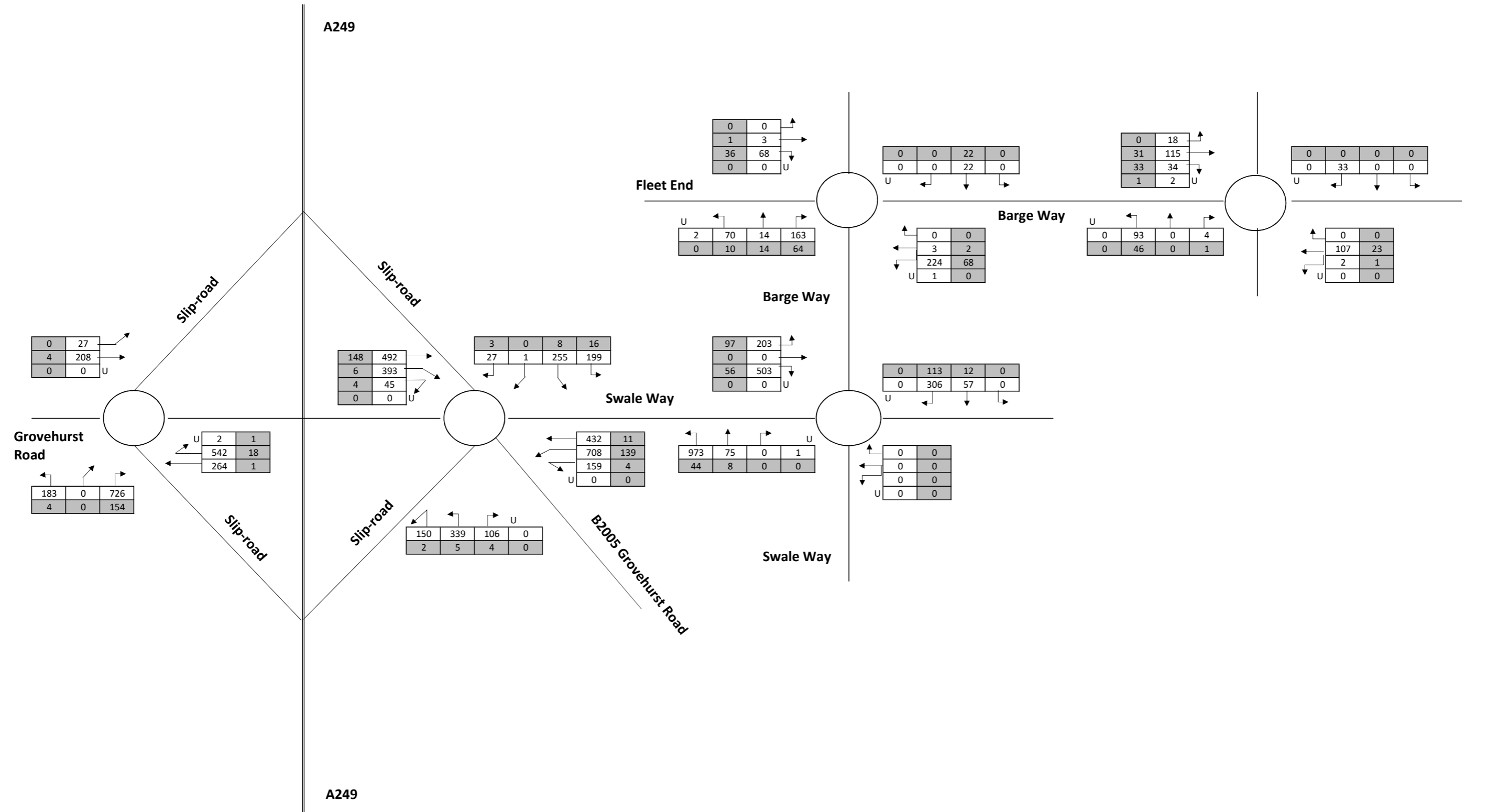
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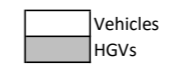
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**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: Sensitivity\_2024 Baseline + K3 and WKN Operational + 2024 Cumulative Development AM Peak Hour



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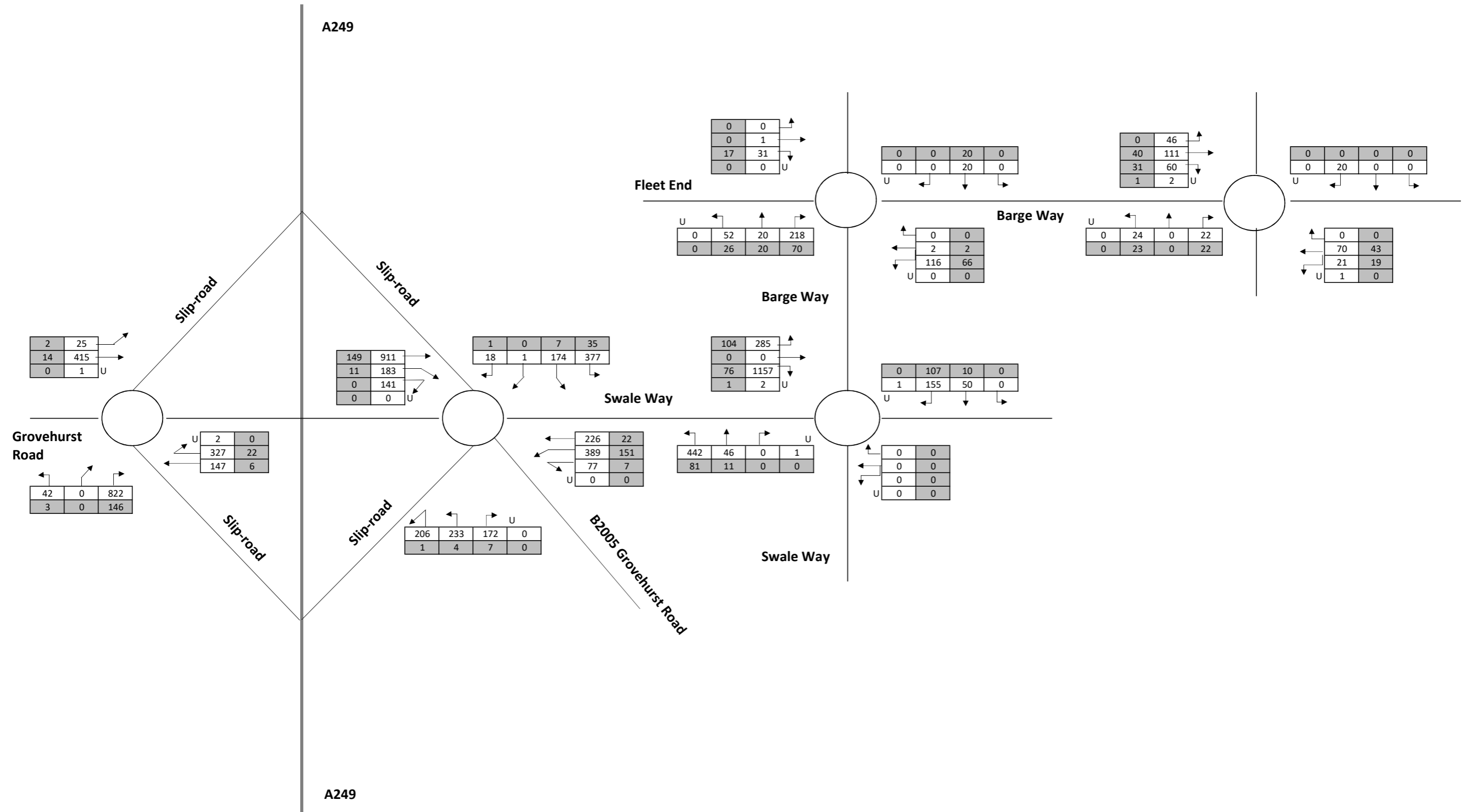


**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: Sensitivity\_2024 Baseline + K3 and WKN Operational + 2024 Cumulative Development PM Peak Hour



**APPENDIX AS: SENSITIVITY 2031 BASELINE AND K3  
OPERATIONAL AM AND PM PEAK HOUR TRAFFIC FLOW  
DIAGRAMS**

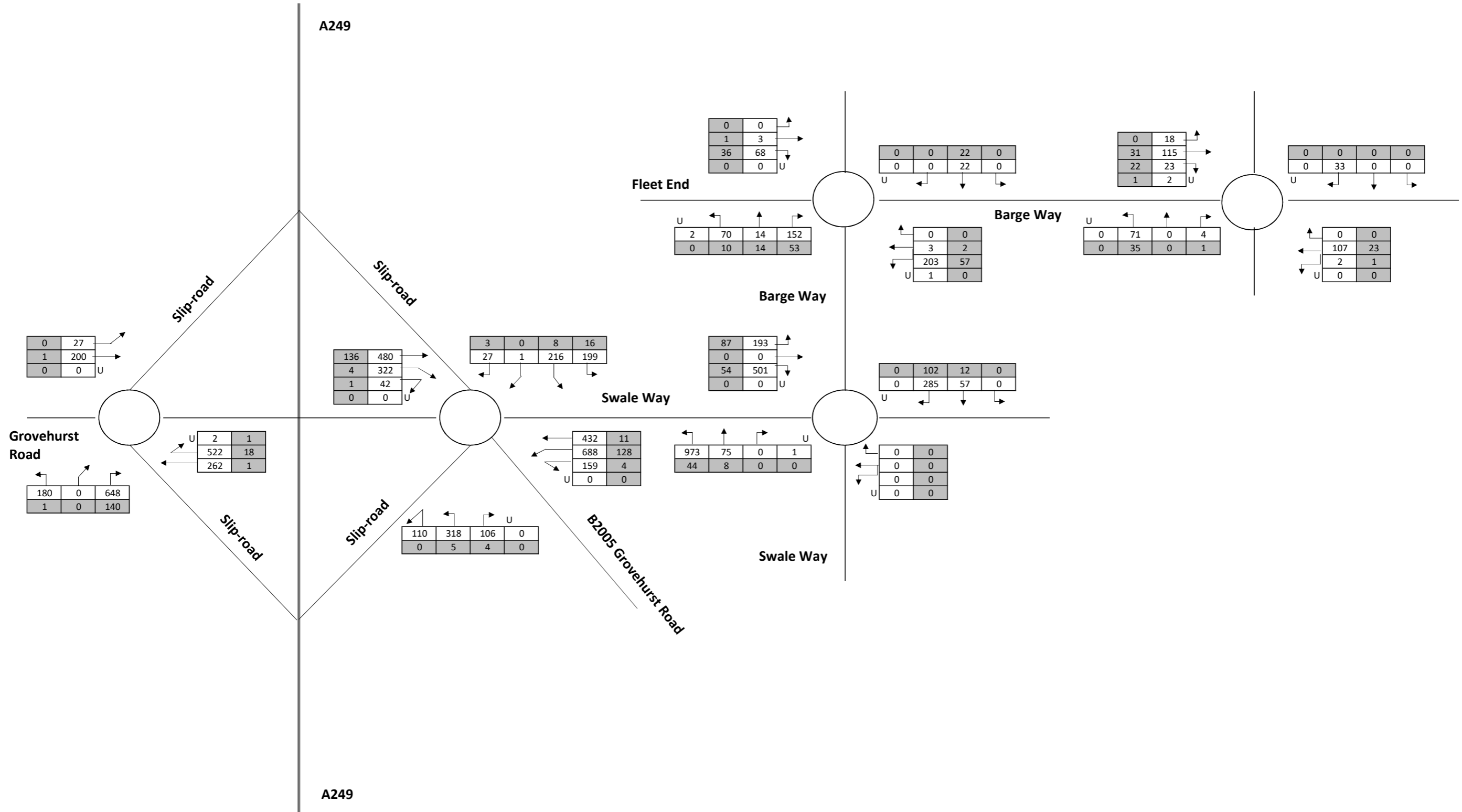
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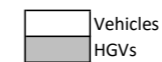
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**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: Sensitivity\_2031 Baseline + K3 Operational AM Peak Hour



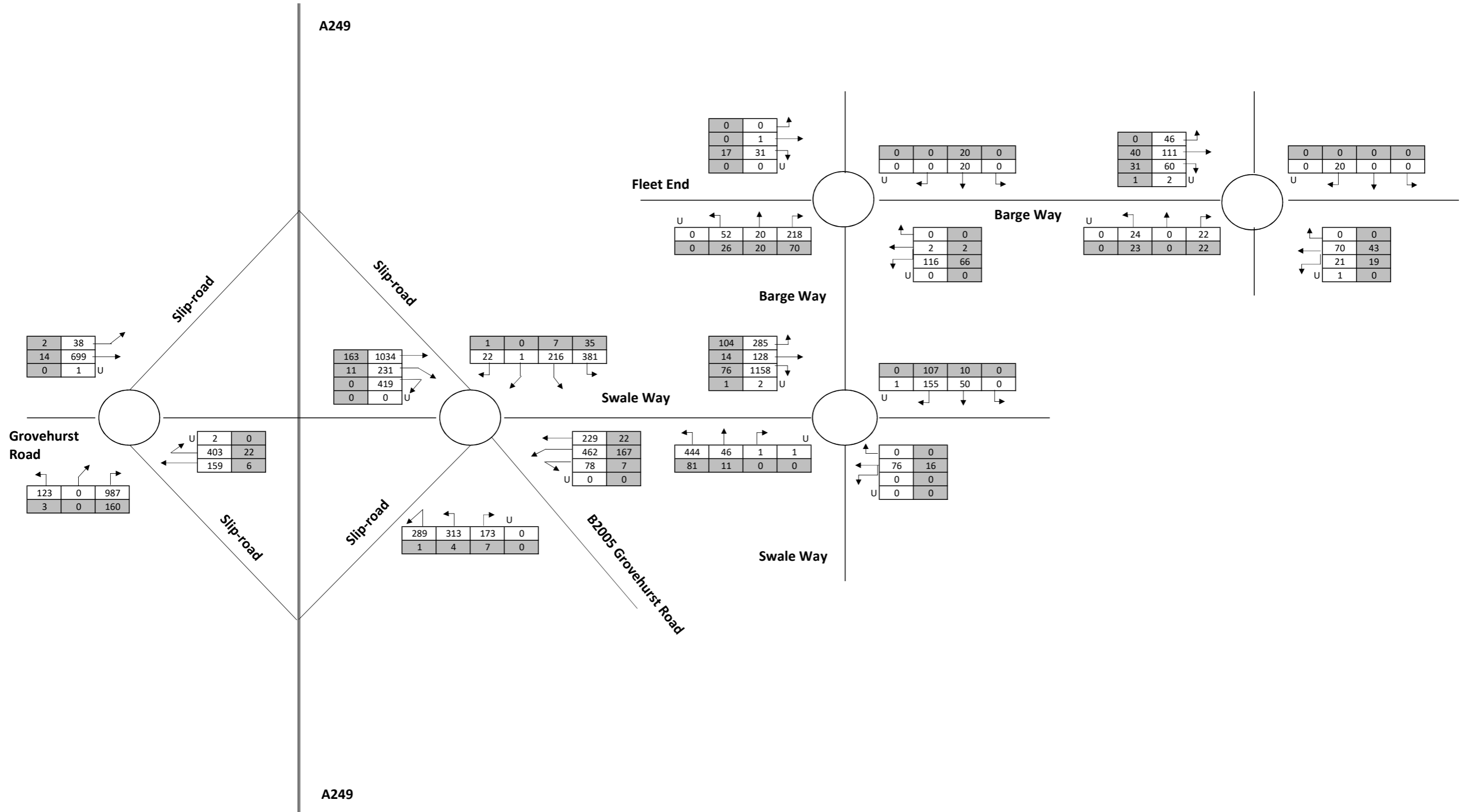
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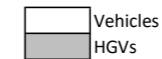
**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: Sensitivity\_2031 Baseline + K3 Operational PM Peak Hour

**APPENDIX AT: SENSITIVITY 2031 BASELINE, K3  
OPERATIONAL AND 2031 CUMULATIVE DEVELOPMENT AM  
AND PM PEAK HOUR TRAFFIC FLOW DIAGRAMS**

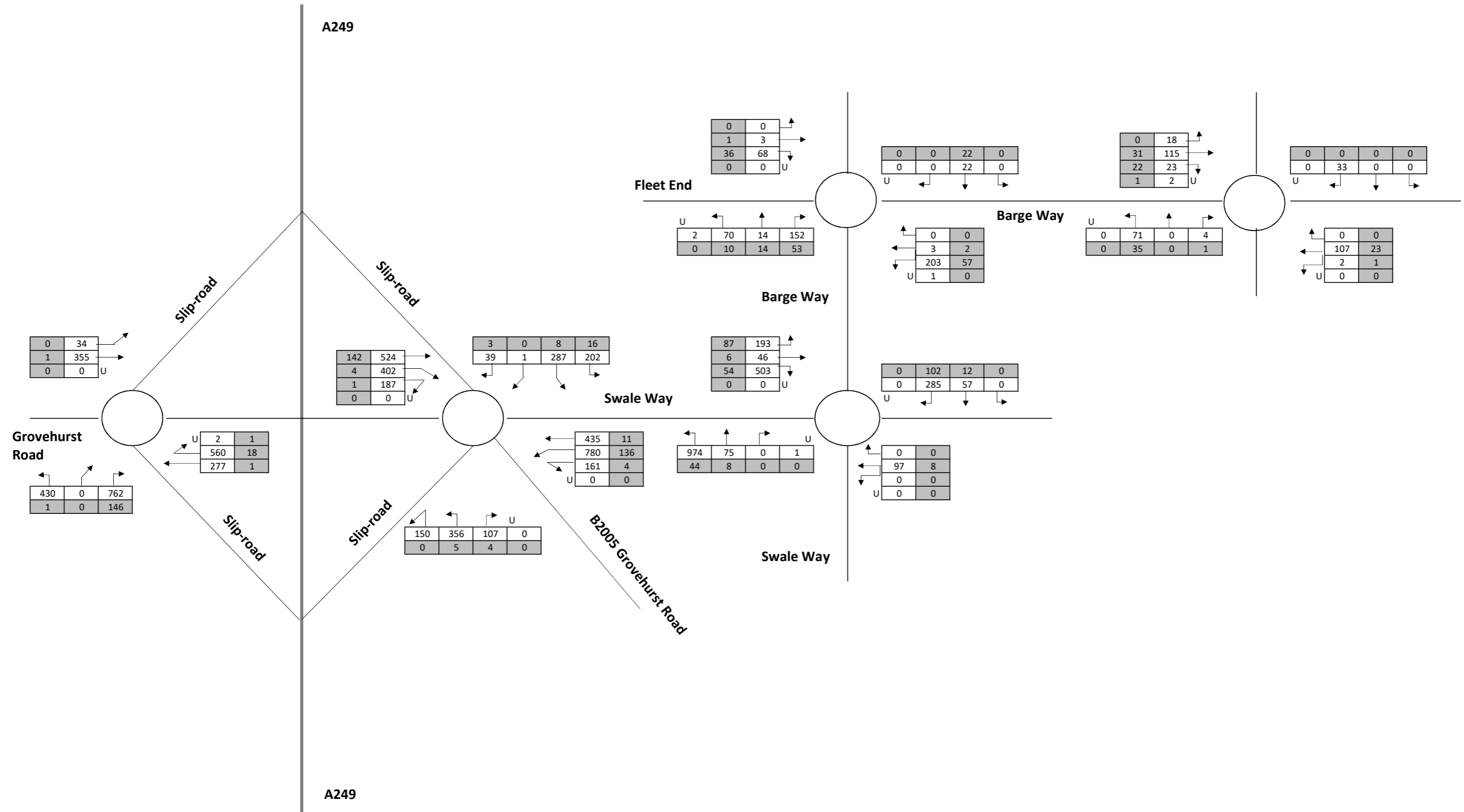
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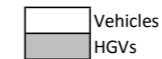
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**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: Sensitivity\_2031 Baseline + K3 Operational + 2031 Cumulative Development AM Peak Hour



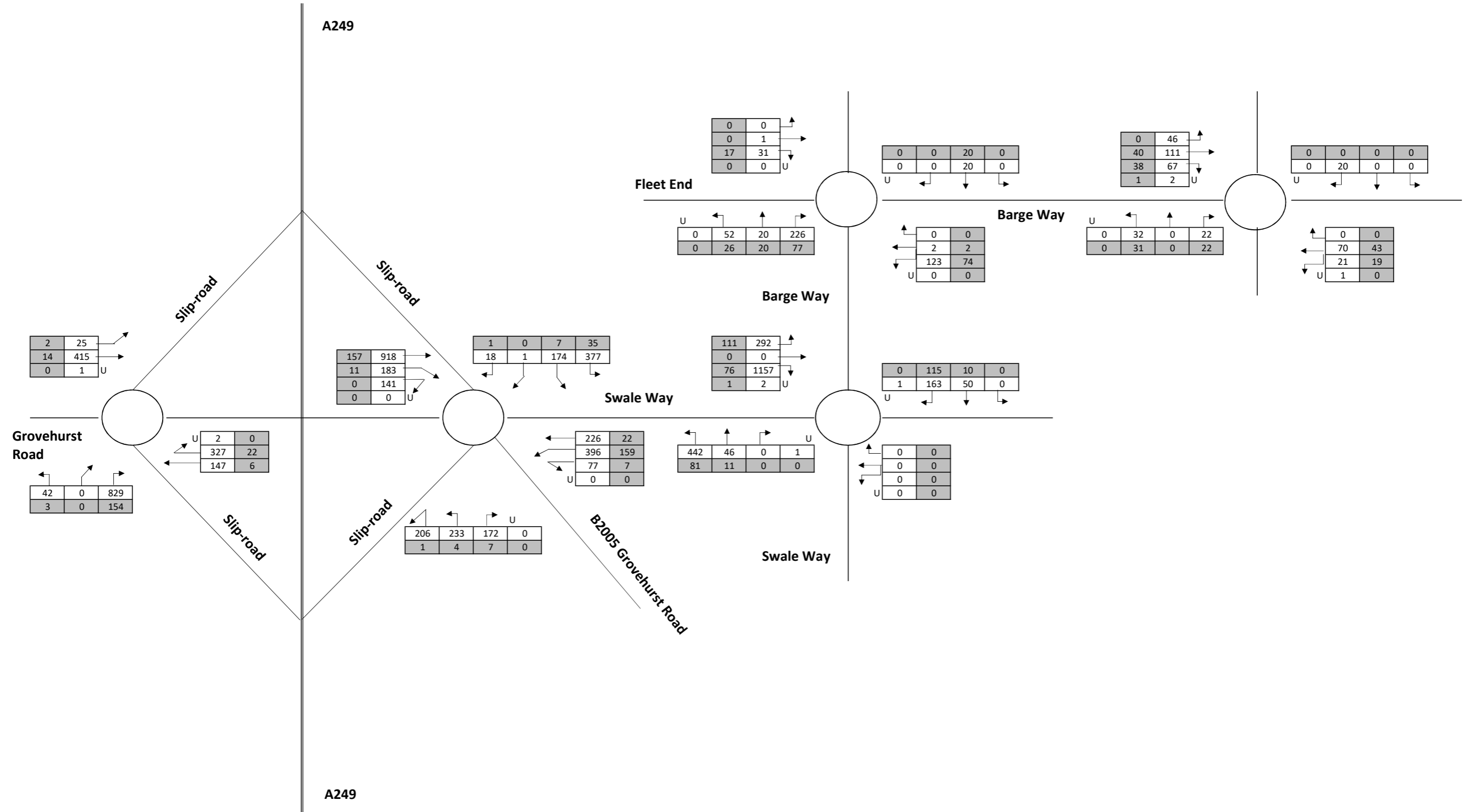
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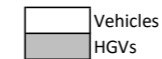
**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: Sensitivity\_2031 Baseline + K3 Operational + 2031 Cumulative Development PM Peak Hour

**APPENDIX AU: SENSITIVITY 2031 BASELINE AND WKN  
OPERATIONAL AM AND PM PEAK HOUR TRAFFIC FLOW  
DIAGRAMS**

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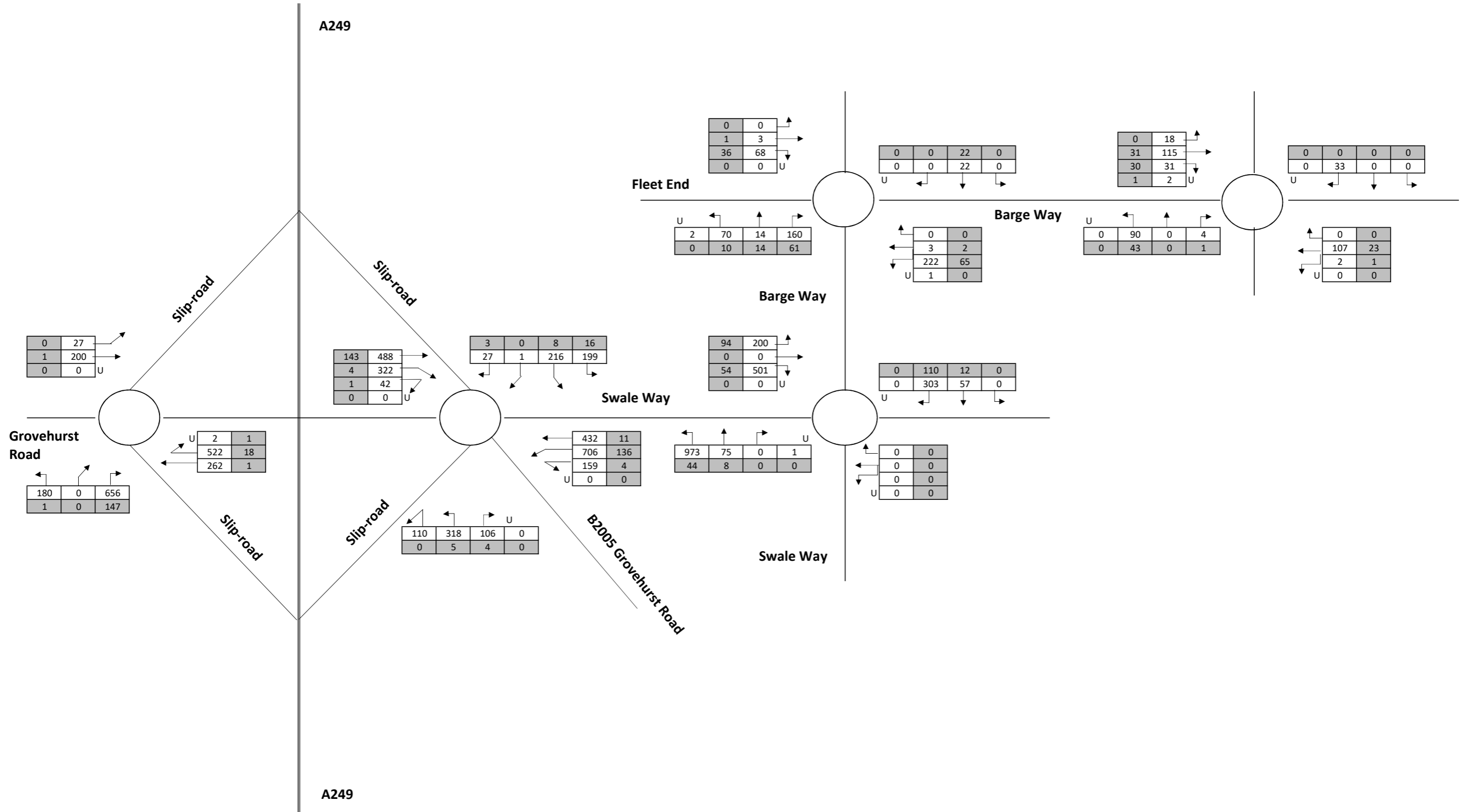


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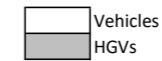


**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: Sensitivity\_2031 Baseline + WKN Operational AM Peak Hour





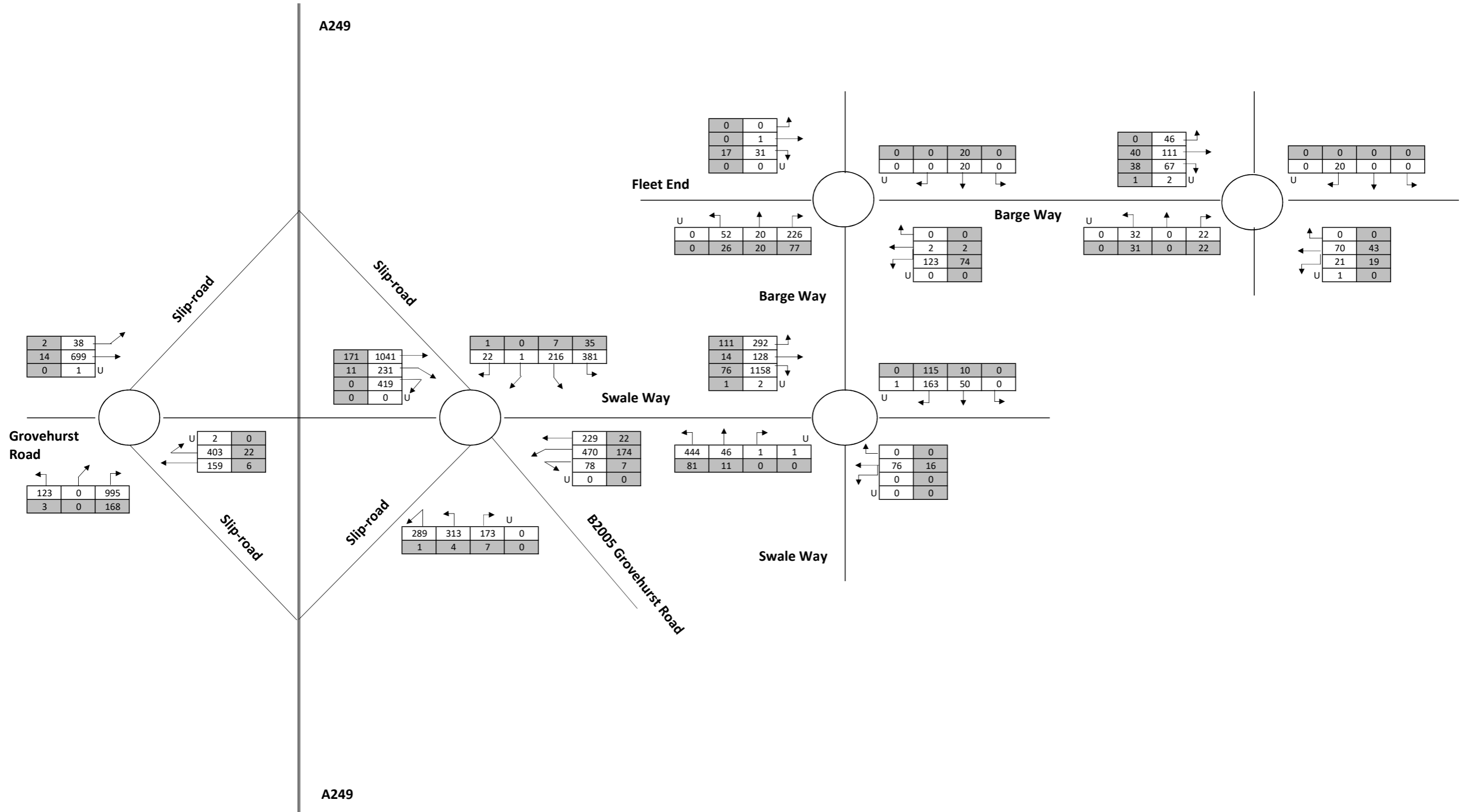
140 London Wall  
 London, EC2Y 5DN  
 T: +44(0)20 7280 3300 E: transport@rpsgroup.com



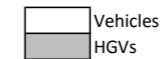
**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: Sensivity\_2031 Baseline + WKN Operational PM Peak Hour

**APPENDIX AV: SENSITIVITY 2031 BASELINE, WKN  
OPERATIONAL AND 2031 CUMULATIVE DEVELOPMENT AM  
AND PM PEAK HOUR TRAFFIC FLOW DIAGRAMS**

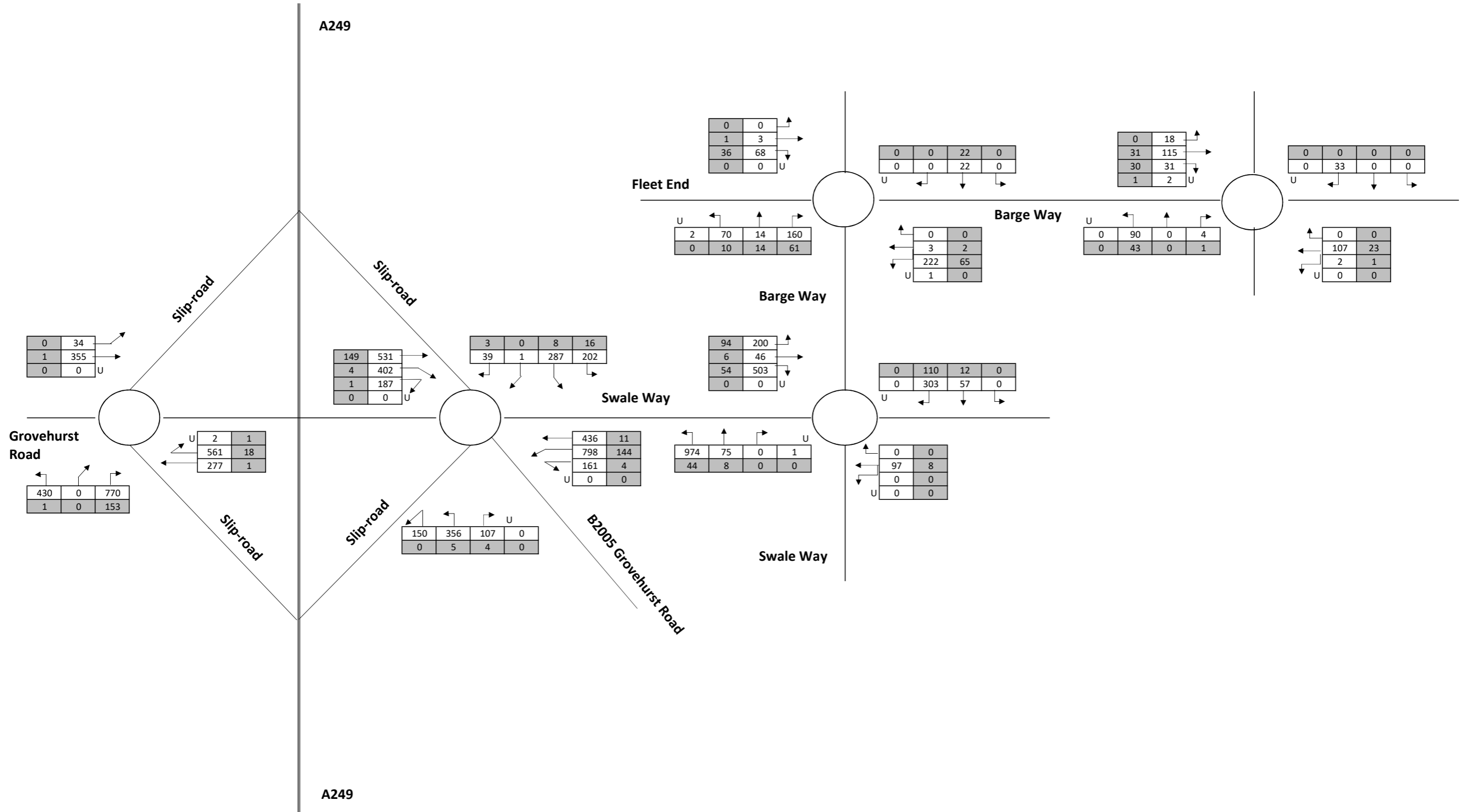
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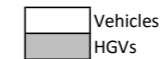
140 London Wall  
London, EC2Y 5DN  
T: +44(0)20 7280 3300 E: transport@rpsgroup.com



**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: Sensitivity\_2031 Baseline + WKN Operational + 2031 Cumulative Development AM Peak Hour



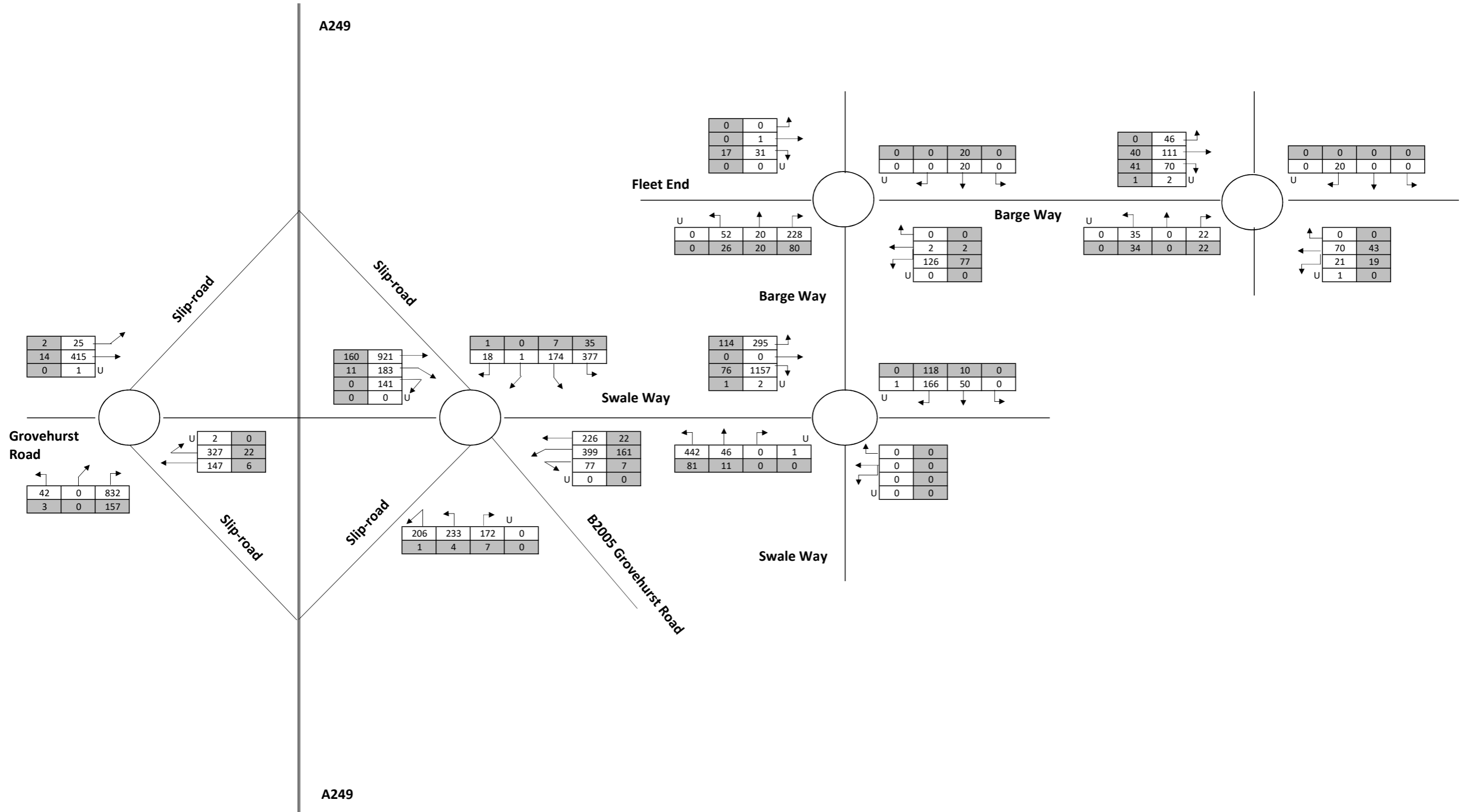
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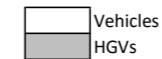
**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: Sensitivity\_2031 Baseline + WKN Operational + 2031 Cumulative Development PM Peak Hour

**APPENDIX AW: SENSITIVITY 2031 BASELINE, K3  
OPERATIONAL AND WKN OPERATIONAL AM AND PM PEAK  
HOUR TRAFFIC FLOW DIAGRAMS**

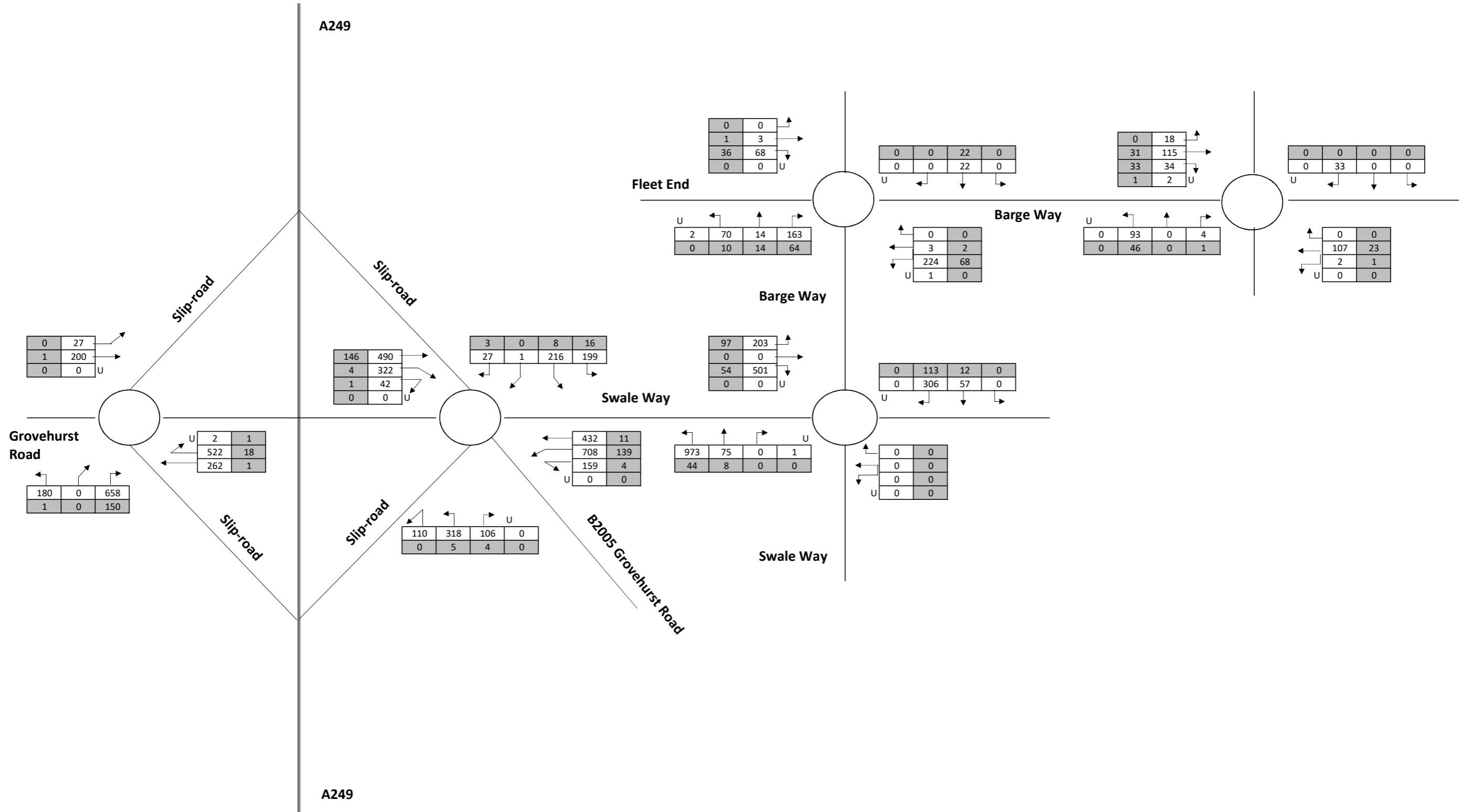
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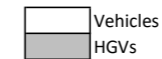
140 London Wall  
 London, EC2Y 5DN  
 T: +44(0)20 7280 3300 E: transport@rpsgroup.com



**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: Sensitivity\_2031 Baseline + K3 and WKN Operational AM Peak Hour



140 London Wall  
London, EC2Y 5DN  
T: +44(0)20 7280 3300 E: transport@rpsgroup.com

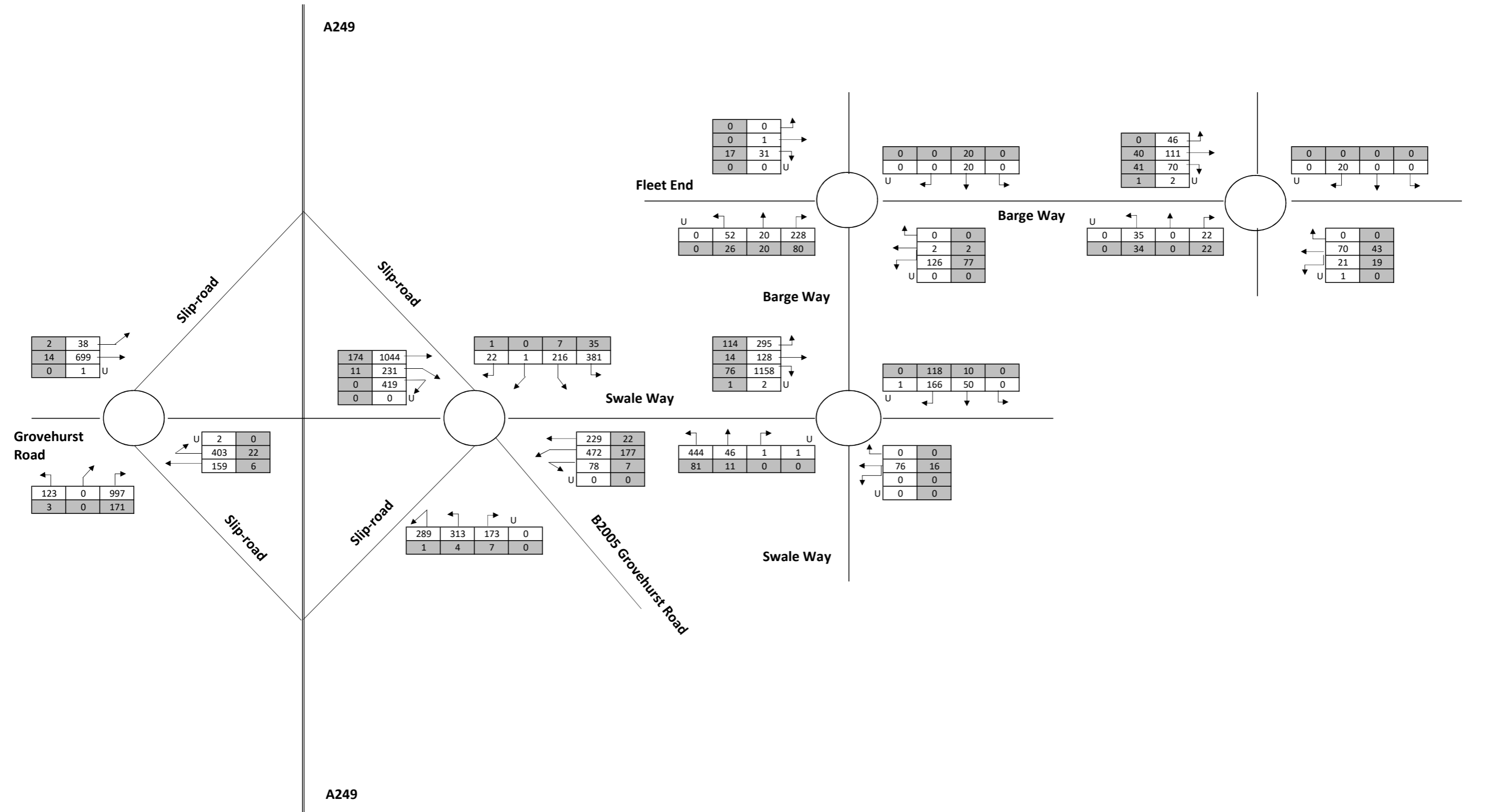


**Figure:**  
Client: Wheelabrator Technologies Inc  
Project: K3 Power Upgrade and WKN  
Title: Sensitivity\_2031 Baseline + K3 and WKN Operational PM Peak Hour

**APPENDIX AX: SENSITIVITY 2031 BASELINE, K3  
OPERATIONAL PLUS WKN OPERATIONAL AND 2031  
CUMULATIVE DEVELOPMENT AM AND PM PEAK HOUR  
TRAFFIC FLOW DIAGRAMS**

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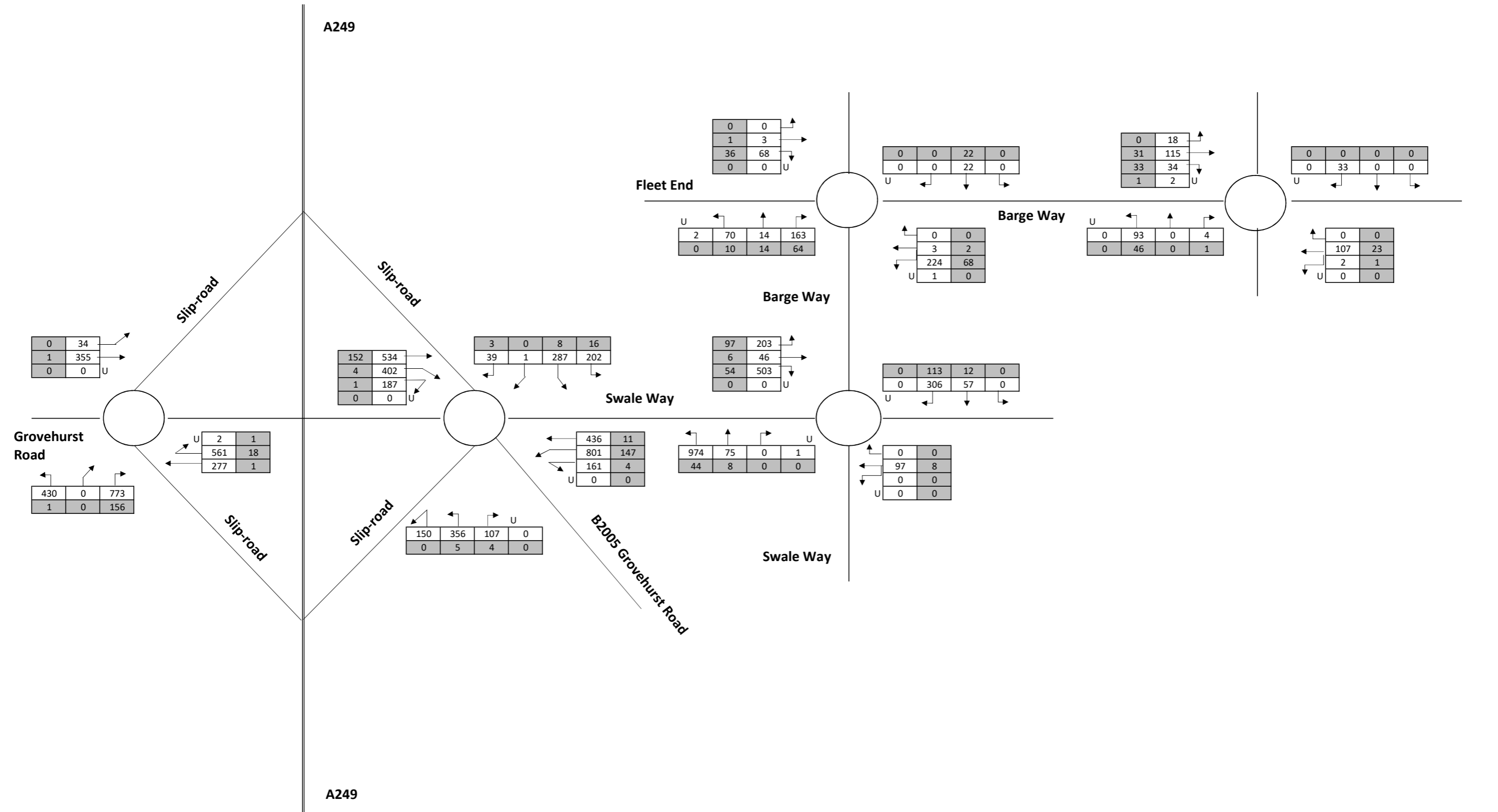




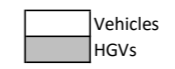
140 London Wall  
 London, EC2Y 5DN  
 T: +44(0)20 7280 3300 E: transport@rpsgroup.com

	Vehicles
	HGVs

**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: Sensitivity\_2031 Baseline + K3 and WKN Operational + 2031 Cumulative Development AM Peak Hour



140 London Wall  
 London, EC2Y 5DN  
 T: +44(0)20 7280 3300 E: transport@rpsgroup.com



**Figure:**  
 Client: Wheelabrator Technologies Inc  
 Project: K3 Power Upgrade and WKN  
 Title: Sensitivity\_2031 Baseline + K3 and WKN Operational + 2031 Cumulative Development PM Peak Hour

# APPENDIX AY: SENSITIVITY JUNCTION ASSESSMENTS

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Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.0.2.5947 © Copyright TRL Limited, 2017
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 770558 software@trl.co.uk www.trlsoftware.co.uk
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

**Filename:** Barge Way\_Site Access\_Sensitivity\_Full K3.j9  
**Path:** P:\JNY9290 - Kemsley K5\Transport\Arcady\WKN DCO\Barge Way\_Site Access  
**Report generation date:** 08/07/2019 14:00:09

- »2017, AM
- »2017, PM
- »2024, AM
- »2024, PM
- »2024 + Cumulative Development, AM
- »2024 + Cumulative Development, PM
- »2024 + K3 Operational, AM
- »2024 + K3 Operational, PM
- »2024 + K3 and WKN Operational, AM
- »2024 + K3 and WKN Operational, PM
- »2024 + K3 Operational + Cumulative Development, AM
- »2024 + K3 Operational + Cumulative Development, PM
- »2024 + K3 and WKN Operational + Cumulative Development, AM
- »2024 + K3 and WKN Operational + Cumulative Development, PM
- »2031, AM
- »2031, PM
- »2031 + Cumulative , AM
- »2031 + Cumulative, PM
- »2031 + K3 Operational, AM
- »2031 + K3 Operational, PM
- »2031 + K3 and WKN Operational, AM
- »2031 + K3 and WKN Operational, PM
- »2031 + K3 Operational + Cumulative Development, AM
- »2031 + K3 Operational + Cumulative Development, PM
- »2031 + K3 and WKN Operational + Cumulative Development, AM
- »2031 + K3 and WKN Operational + Cumulative Development, PM

**Summary of junction performance**

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
<b>2017</b>						
1 - Access (S)	0.0	4.82	0.04	0.1	3.61	0.05
2 - Barge Way	0.2	3.74	0.13	0.1	3.40	0.10
3 - Access Road (N)	0.0	0.00	0.00	0.0	0.00	0.00
4 - Private Road	0.1	4.82	0.09	0.1	3.10	0.09
<b>2024</b>						
1 - Access (S)	0.0	4.92	0.04	0.1	3.68	0.05
2 - Barge Way	0.2	3.71	0.18	0.1	3.39	0.13

3 - Access Road (N)	0.0	2.77	0.02	0.0	2.71	0.03
4 - Private Road	0.1	4.60	0.11	0.1	3.28	0.10
<b>2024 + Cumulative Development</b>						
1 - Access (S)	0.0	4.92	0.04	0.1	3.68	0.05
2 - Barge Way	0.2	3.71	0.18	0.1	3.39	0.13
3 - Access Road (N)	0.0	2.77	0.02	0.0	2.71	0.03
4 - Private Road	0.1	4.60	0.11	0.1	3.28	0.10
<b>2024 + K3 Operational</b>						
1 - Access (S)	0.1	5.07	0.07	0.1	3.90	0.08
2 - Barge Way	0.3	3.97	0.21	0.2	3.66	0.15
3 - Access Road (N)	0.0	2.83	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.70	0.12	0.1	3.33	0.10
<b>2024 + K3 and WKN Operational</b>						
1 - Access (S)	0.1	5.16	0.08	0.1	4.04	0.11
2 - Barge Way	0.3	4.13	0.22	0.2	3.85	0.17
3 - Access Road (N)	0.0	2.86	0.02	0.0	2.77	0.03
4 - Private Road	0.1	4.75	0.12	0.1	3.37	0.10
<b>2024 + K3 Operational + Cumulative Development</b>						
1 - Access (S)	0.1	5.07	0.07	0.1	3.90	0.08
2 - Barge Way	0.3	3.97	0.21	0.2	3.66	0.15
3 - Access Road (N)	0.0	2.83	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.70	0.12	0.1	3.33	0.10
<b>2024 + K3 and WKN Operational + Cumulative Development</b>						
1 - Access (S)	0.1	5.16	0.08	0.1	4.04	0.11
2 - Barge Way	0.3	4.13	0.22	0.2	3.85	0.17
3 - Access Road (N)	0.0	2.86	0.02	0.0	2.77	0.03
4 - Private Road	0.1	4.75	0.12	0.1	3.37	0.10
<b>2031</b>						
1 - Access (S)	0.0	4.92	0.04	0.1	3.68	0.05
2 - Barge Way	0.2	3.71	0.18	0.1	3.39	0.13
3 - Access Road (N)	0.0	2.77	0.02	0.0	2.71	0.03
4 - Private Road	0.1	4.60	0.11	0.1	3.28	0.10
<b>2031 + Cumulative</b>						
1 - Access (S)	0.0	4.92	0.04	0.1	3.68	0.05
2 - Barge Way	0.2	3.71	0.18	0.1	3.39	0.13
3 - Access Road (N)	0.0	2.77	0.02	0.0	2.71	0.03
4 - Private Road	0.1	4.60	0.11	0.1	3.28	0.10
<b>2031 + K3 Operational</b>						
1 - Access (S)	0.1	5.07	0.07	0.1	3.90	0.08
2 - Barge Way	0.3	3.97	0.21	0.2	3.66	0.15
3 - Access Road (N)	0.0	2.83	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.70	0.12	0.1	3.33	0.10
<b>2031 + K3 and WKN Operational</b>						
1 - Access (S)	0.1	5.16	0.08	0.1	4.04	0.11
2 - Barge Way	0.3	4.13	0.22	0.2	3.85	0.17
3 - Access Road (N)	0.0	2.86	0.02	0.0	2.77	0.03
4 - Private Road	0.1	4.75	0.12	0.1	3.37	0.10
<b>2031 + K3 Operational + Cumulative Development</b>						
1 - Access (S)	0.1	5.07	0.07	0.1	3.90	0.08
2 - Barge Way	0.3	3.97	0.21	0.2	3.66	0.15
3 - Access Road (N)	0.0	2.83	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.70	0.12	0.1	3.33	0.10
<b>2031 + K3 and WKN Operational + Cumulative Development</b>						
1 - Access (S)	0.1	5.16	0.08	0.1	4.04	0.11
2 - Barge Way	0.3	4.13	0.22	0.2	3.85	0.17
3 - Access Road (N)	0.0	2.86	0.02	0.0	2.77	0.03

4 - Private Road	0.1	4.75	0.12	0.1	3.37	0.10
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Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

## File summary

### File Description

Title	(untitled)
Location	
Site number	
Date	08/11/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR\jack.clarke-williams
Description	

## Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

## Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

## Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓
D21	2031 + Cumulative	AM	ONE HOUR	07:15	08:45	15	✓
D22	2031 + Cumulative	PM	ONE HOUR	16:15	17:45	15	✓
D23	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D24	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D27	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D28	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D29	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D30	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D33	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D34	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

### Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

# 2017, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.28	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Name	Description
1	Access (S)	
2	Barge Way	
3	Access Road (N)	
4	Private Road	

### Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Access (S)	3.75	6.00	16.5	13.5	48.0	26.0	
2 - Barge Way	3.75	7.00	8.5	18.5	47.5	33.0	
3 - Access Road (N)	3.75	6.50	12.5	11.5	43.0	47.0	
4 - Private Road	3.60	6.50	8.0	13.5	45.0	18.0	

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Access (S)	0.594	1595
2 - Barge Way	0.587	1556
3 - Access Road (N)	0.560	1471
4 - Private Road	0.599	1525

The slope and intercept shown above include any corrections and adjustments.

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00



## Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	31	100.000
2 - Barge Way		ONE HOUR	✓	136	100.000
3 - Access Road (N)		ONE HOUR	✓	0	100.000
4 - Private Road		ONE HOUR	✓	71	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To				
	1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road	
From	1 - Access (S)	0	9	0	22
	2 - Barge Way	32	2	0	102
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	21	49	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

	To				
	1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road	
From	1 - Access (S)	0	89	0	100
	2 - Barge Way	47	50	0	34
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	78	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.04	4.82	0.0	A	28	43
2 - Barge Way	0.13	3.74	0.2	A	125	187
3 - Access Road (N)	0.00	0.00	0.0	A	0	0
4 - Private Road	0.09	4.82	0.1	A	65	98

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	23	6	39	790	0.030	23	40	0.0	0.0	4.695	A
2 - Barge Way	102	26	17	1119	0.091	102	45	0.0	0.1	3.536	A
3 - Access Road (N)	0	0	119	1373	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	53	13	25	831	0.064	53	94	0.0	0.1	4.626	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	28	7	47	786	0.035	28	48	0.0	0.0	4.748	A
2 - Barge Way	122	31	21	1116	0.110	122	54	0.1	0.1	3.620	A
3 - Access Road (N)	0	0	143	1354	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	64	16	31	829	0.077	64	112	0.1	0.1	4.706	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	34	9	57	780	0.044	34	58	0.0	0.0	4.824	A
2 - Barge Way	150	37	25	1112	0.135	150	66	0.1	0.2	3.738	A
3 - Access Road (N)	0	0	175	1328	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	78	20	37	825	0.095	78	138	0.1	0.1	4.817	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	34	9	57	780	0.044	34	58	0.0	0.0	4.824	A
2 - Barge Way	150	37	25	1112	0.135	150	66	0.2	0.2	3.738	A
3 - Access Road (N)	0	0	175	1328	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	78	20	37	825	0.095	78	138	0.1	0.1	4.817	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	28	7	47	786	0.035	28	48	0.0	0.0	4.749	A
2 - Barge Way	122	31	21	1116	0.110	122	54	0.2	0.1	3.621	A
3 - Access Road (N)	0	0	143	1354	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	64	16	31	829	0.077	64	112	0.1	0.1	4.709	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	23	6	39	790	0.030	23	40	0.0	0.0	4.696	A
2 - Barge Way	102	26	17	1119	0.091	102	45	0.1	0.1	3.540	A
3 - Access Road (N)	0	0	120	1373	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	53	13	26	831	0.064	54	94	0.1	0.1	4.629	A

# 2017, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.33	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	48	100.000
2 - Barge Way		ONE HOUR	✓	107	100.000
3 - Access Road (N)		ONE HOUR	✓	0	100.000
4 - Private Road		ONE HOUR	✓	103	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	44	0	4
	2 - Barge Way	8	2	0	97
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	2	101	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	46	0	25
	2 - Barge Way	88	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	18	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.05	3.61	0.1	A	44	66
2 - Barge Way	0.10	3.40	0.1	A	98	147
3 - Access Road (N)	0.00	0.00	0.0	A	0	0
4 - Private Road	0.09	3.10	0.1	A	95	142

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	36	9	77	1068	0.034	36	8	0.0	0.0	3.487	A
2 - Barge Way	81	20	3	1178	0.068	80	110	0.0	0.1	3.280	A
3 - Access Road (N)	0	0	83	1409	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	78	19	8	1279	0.061	77	76	0.0	0.1	2.996	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	93	1061	0.041	43	9	0.0	0.0	3.536	A
2 - Barge Way	96	24	4	1177	0.082	96	132	0.1	0.1	3.329	A
3 - Access Road (N)	0	0	100	1397	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	93	23	9	1277	0.073	93	91	0.1	0.1	3.038	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	53	13	113	1051	0.050	53	11	0.0	0.1	3.607	A
2 - Barge Way	118	29	4	1177	0.100	118	162	0.1	0.1	3.398	A
3 - Access Road (N)	0	0	122	1380	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	113	28	11	1275	0.089	113	111	0.1	0.1	3.097	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	53	13	113	1051	0.050	53	11	0.1	0.1	3.607	A
2 - Barge Way	118	29	4	1177	0.100	118	162	0.1	0.1	3.398	A
3 - Access Road (N)	0	0	122	1380	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	113	28	11	1275	0.089	113	111	0.1	0.1	3.097	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	93	1061	0.041	43	9	0.1	0.0	3.540	A
2 - Barge Way	96	24	4	1177	0.082	96	132	0.1	0.1	3.332	A
3 - Access Road (N)	0	0	100	1397	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	93	23	9	1277	0.073	93	91	0.1	0.1	3.041	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	36	9	78	1068	0.034	36	8	0.0	0.0	3.490	A
2 - Barge Way	81	20	3	1178	0.068	81	111	0.1	0.1	3.281	A
3 - Access Road (N)	0	0	84	1409	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	78	19	8	1278	0.061	78	76	0.1	0.1	2.999	A

# 2024, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.11	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	31	100.000
2 - Barge Way		ONE HOUR	✓	191	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	9	0	22
	2 - Barge Way	32	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	89	0	100
	2 - Barge Way	47	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.04	4.92	0.0	A	28	43
2 - Barge Way	0.18	3.71	0.2	A	175	263
3 - Access Road (N)	0.02	2.77	0.0	A	18	28
4 - Private Road	0.11	4.60	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	23	6	70	780	0.030	23	40	0.0	0.0	4.759	A
2 - Barge Way	144	36	17	1188	0.121	143	76	0.0	0.1	3.443	A
3 - Access Road (N)	15	4	126	1367	0.011	15	34	0.0	0.0	2.661	A
4 - Private Road	69	17	41	893	0.078	69	100	0.0	0.1	4.365	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	28	7	84	774	0.036	28	48	0.0	0.0	4.827	A
2 - Barge Way	172	43	21	1185	0.145	172	91	0.1	0.2	3.551	A
3 - Access Road (N)	18	4	151	1347	0.013	18	41	0.0	0.0	2.708	A
4 - Private Road	83	21	49	889	0.093	83	120	0.1	0.1	4.462	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	34	9	102	765	0.045	34	58	0.0	0.0	4.923	A
2 - Barge Way	210	53	25	1181	0.178	210	111	0.2	0.2	3.707	A
3 - Access Road (N)	22	6	185	1319	0.017	22	51	0.0	0.0	2.775	A
4 - Private Road	101	25	59	884	0.115	101	147	0.1	0.1	4.596	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	34	9	102	765	0.045	34	58	0.0	0.0	4.923	A
2 - Barge Way	210	53	25	1181	0.178	210	111	0.2	0.2	3.707	A
3 - Access Road (N)	22	6	185	1319	0.017	22	51	0.0	0.0	2.775	A
4 - Private Road	101	25	59	884	0.115	101	148	0.1	0.1	4.596	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	28	7	84	773	0.036	28	48	0.0	0.0	4.830	A
2 - Barge Way	172	43	21	1185	0.145	172	91	0.2	0.2	3.552	A
3 - Access Road (N)	18	4	151	1347	0.013	18	41	0.0	0.0	2.711	A
4 - Private Road	83	21	49	889	0.093	83	121	0.1	0.1	4.465	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	23	6	70	780	0.030	23	40	0.0	0.0	4.760	A
2 - Barge Way	144	36	17	1188	0.121	144	76	0.2	0.1	3.449	A
3 - Access Road (N)	15	4	127	1367	0.011	15	35	0.0	0.0	2.664	A
4 - Private Road	69	17	41	893	0.078	69	101	0.1	0.1	4.372	A



# 2024, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.35	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	48	100.000
2 - Barge Way		ONE HOUR	✓	143	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	44	0	4
	2 - Barge Way	8	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	46	0	25
	2 - Barge Way	88	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.05	3.68	0.1	A	44	66
2 - Barge Way	0.13	3.39	0.1	A	131	197
3 - Access Road (N)	0.03	2.71	0.0	A	30	45
4 - Private Road	0.10	3.28	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	36	9	107	1054	0.034	36	8	0.0	0.0	3.534	A
2 - Barge Way	108	27	3	1221	0.088	107	140	0.0	0.1	3.233	A
3 - Access Road (N)	25	6	97	1400	0.018	25	14	0.0	0.0	2.618	A
4 - Private Road	82	21	32	1226	0.067	82	89	0.0	0.1	3.146	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	128	1044	0.041	43	9	0.0	0.0	3.594	A
2 - Barge Way	129	32	4	1220	0.105	128	167	0.1	0.1	3.296	A
3 - Access Road (N)	30	7	116	1386	0.021	30	16	0.0	0.0	2.654	A
4 - Private Road	98	24	39	1222	0.080	98	107	0.1	0.1	3.201	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	53	13	156	1030	0.051	53	11	0.0	0.1	3.681	A
2 - Barge Way	157	39	4	1220	0.129	157	205	0.1	0.1	3.387	A
3 - Access Road (N)	36	9	142	1366	0.027	36	20	0.0	0.0	2.706	A
4 - Private Road	120	30	47	1217	0.099	120	131	0.1	0.1	3.280	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	53	13	156	1030	0.051	53	11	0.1	0.1	3.681	A
2 - Barge Way	157	39	4	1220	0.129	157	205	0.1	0.1	3.387	A
3 - Access Road (N)	36	9	142	1366	0.027	36	20	0.0	0.0	2.706	A
4 - Private Road	120	30	47	1217	0.099	120	131	0.1	0.1	3.280	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	128	1044	0.041	43	9	0.1	0.0	3.595	A
2 - Barge Way	129	32	4	1220	0.105	129	167	0.1	0.1	3.297	A
3 - Access Road (N)	30	7	116	1385	0.021	30	16	0.0	0.0	2.657	A
4 - Private Road	98	24	39	1222	0.080	98	107	0.1	0.1	3.202	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	36	9	107	1054	0.034	36	8	0.0	0.0	3.535	A
2 - Barge Way	108	27	3	1221	0.088	108	140	0.1	0.1	3.234	A
3 - Access Road (N)	25	6	97	1399	0.018	25	14	0.0	0.0	2.618	A
4 - Private Road	82	21	32	1226	0.067	82	90	0.1	0.1	3.147	A

# 2024 + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.11	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	31	100.000
2 - Barge Way		ONE HOUR	✓	191	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	9	0	22
	2 - Barge Way	32	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	89	0	100
	2 - Barge Way	47	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.04	4.92	0.0	A	28	43
2 - Barge Way	0.18	3.71	0.2	A	175	263
3 - Access Road (N)	0.02	2.77	0.0	A	18	28
4 - Private Road	0.11	4.60	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	23	6	70	780	0.030	23	40	0.0	0.0	4.759	A
2 - Barge Way	144	36	17	1188	0.121	143	76	0.0	0.1	3.443	A
3 - Access Road (N)	15	4	126	1367	0.011	15	34	0.0	0.0	2.661	A
4 - Private Road	69	17	41	893	0.078	69	100	0.0	0.1	4.365	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	28	7	84	774	0.036	28	48	0.0	0.0	4.827	A
2 - Barge Way	172	43	21	1185	0.145	172	91	0.1	0.2	3.551	A
3 - Access Road (N)	18	4	151	1347	0.013	18	41	0.0	0.0	2.708	A
4 - Private Road	83	21	49	889	0.093	83	120	0.1	0.1	4.462	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	34	9	102	765	0.045	34	58	0.0	0.0	4.923	A
2 - Barge Way	210	53	25	1181	0.178	210	111	0.2	0.2	3.707	A
3 - Access Road (N)	22	6	185	1319	0.017	22	51	0.0	0.0	2.775	A
4 - Private Road	101	25	59	884	0.115	101	147	0.1	0.1	4.596	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	34	9	102	765	0.045	34	58	0.0	0.0	4.923	A
2 - Barge Way	210	53	25	1181	0.178	210	111	0.2	0.2	3.707	A
3 - Access Road (N)	22	6	185	1319	0.017	22	51	0.0	0.0	2.775	A
4 - Private Road	101	25	59	884	0.115	101	148	0.1	0.1	4.596	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	28	7	84	773	0.036	28	48	0.0	0.0	4.830	A
2 - Barge Way	172	43	21	1185	0.145	172	91	0.2	0.2	3.552	A
3 - Access Road (N)	18	4	151	1347	0.013	18	41	0.0	0.0	2.711	A
4 - Private Road	83	21	49	889	0.093	83	121	0.1	0.1	4.465	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	23	6	70	780	0.030	23	40	0.0	0.0	4.760	A
2 - Barge Way	144	36	17	1188	0.121	144	76	0.2	0.1	3.449	A
3 - Access Road (N)	15	4	127	1367	0.011	15	35	0.0	0.0	2.664	A
4 - Private Road	69	17	41	893	0.078	69	101	0.1	0.1	4.372	A

# 2024 + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.35	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	48	100.000
2 - Barge Way		ONE HOUR	✓	143	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	44	0	4
	2 - Barge Way	8	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	46	0	25
	2 - Barge Way	88	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.05	3.68	0.1	A	44	66
2 - Barge Way	0.13	3.39	0.1	A	131	197
3 - Access Road (N)	0.03	2.71	0.0	A	30	45
4 - Private Road	0.10	3.28	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	36	9	107	1054	0.034	36	8	0.0	0.0	3.534	A
2 - Barge Way	108	27	3	1221	0.088	107	140	0.0	0.1	3.233	A
3 - Access Road (N)	25	6	97	1400	0.018	25	14	0.0	0.0	2.618	A
4 - Private Road	82	21	32	1226	0.067	82	89	0.0	0.1	3.146	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	128	1044	0.041	43	9	0.0	0.0	3.594	A
2 - Barge Way	129	32	4	1220	0.105	128	167	0.1	0.1	3.296	A
3 - Access Road (N)	30	7	116	1386	0.021	30	16	0.0	0.0	2.654	A
4 - Private Road	98	24	39	1222	0.080	98	107	0.1	0.1	3.201	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	53	13	156	1030	0.051	53	11	0.0	0.1	3.681	A
2 - Barge Way	157	39	4	1220	0.129	157	205	0.1	0.1	3.387	A
3 - Access Road (N)	36	9	142	1366	0.027	36	20	0.0	0.0	2.706	A
4 - Private Road	120	30	47	1217	0.099	120	131	0.1	0.1	3.280	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	53	13	156	1030	0.051	53	11	0.1	0.1	3.681	A
2 - Barge Way	157	39	4	1220	0.129	157	205	0.1	0.1	3.387	A
3 - Access Road (N)	36	9	142	1366	0.027	36	20	0.0	0.0	2.706	A
4 - Private Road	120	30	47	1217	0.099	120	131	0.1	0.1	3.280	A



17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	128	1044	0.041	43	9	0.1	0.0	3.595	A
2 - Barge Way	129	32	4	1220	0.105	129	167	0.1	0.1	3.297	A
3 - Access Road (N)	30	7	116	1385	0.021	30	16	0.0	0.0	2.657	A
4 - Private Road	98	24	39	1222	0.080	98	107	0.1	0.1	3.202	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	36	9	107	1054	0.034	36	8	0.0	0.0	3.535	A
2 - Barge Way	108	27	3	1221	0.088	108	140	0.1	0.1	3.234	A
3 - Access Road (N)	25	6	97	1399	0.018	25	14	0.0	0.0	2.618	A
4 - Private Road	82	21	32	1226	0.067	82	90	0.1	0.1	3.147	A

# 2024 + K3 Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.31	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	46	100.000
2 - Barge Way		ONE HOUR	✓	219	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	24	0	22
	2 - Barge Way	60	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	96	0	100
	2 - Barge Way	52	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.07	5.07	0.1	A	42	63
2 - Barge Way	0.21	3.97	0.3	A	201	301
3 - Access Road (N)	0.02	2.83	0.0	A	18	28
4 - Private Road	0.12	4.70	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.045	34	61	0.0	0.0	4.857	A
2 - Barge Way	165	41	17	1156	0.143	164	87	0.0	0.2	3.629	A
3 - Access Road (N)	15	4	147	1349	0.011	15	34	0.0	0.0	2.698	A
4 - Private Road	69	17	62	881	0.079	69	100	0.0	0.1	4.429	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	41	10	84	769	0.054	41	73	0.0	0.1	4.945	A
2 - Barge Way	197	49	21	1153	0.171	197	104	0.2	0.2	3.764	A
3 - Access Road (N)	18	4	176	1325	0.014	18	41	0.0	0.0	2.754	A
4 - Private Road	83	21	74	875	0.095	83	120	0.1	0.1	4.542	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	102	761	0.067	51	89	0.1	0.1	5.067	A
2 - Barge Way	241	60	25	1149	0.210	241	128	0.2	0.3	3.964	A
3 - Access Road (N)	22	6	216	1292	0.017	22	51	0.0	0.0	2.834	A
4 - Private Road	101	25	90	867	0.117	101	147	0.1	0.1	4.701	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	102	761	0.067	51	89	0.1	0.1	5.068	A
2 - Barge Way	241	60	25	1149	0.210	241	128	0.3	0.3	3.965	A
3 - Access Road (N)	22	6	216	1292	0.017	22	51	0.0	0.0	2.834	A
4 - Private Road	101	25	90	867	0.117	101	148	0.1	0.1	4.701	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	41	10	84	769	0.054	41	73	0.1	0.1	4.948	A
2 - Barge Way	197	49	21	1153	0.171	197	104	0.3	0.2	3.766	A
3 - Access Road (N)	18	4	176	1324	0.014	18	41	0.0	0.0	2.757	A
4 - Private Road	83	21	74	875	0.095	83	121	0.1	0.1	4.545	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.045	35	61	0.1	0.0	4.861	A
2 - Barge Way	165	41	17	1156	0.143	165	87	0.2	0.2	3.633	A
3 - Access Road (N)	15	4	148	1348	0.011	15	35	0.0	0.0	2.702	A
4 - Private Road	69	17	62	881	0.079	69	101	0.1	0.1	4.434	A

# 2024 + K3 Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.56	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	75	100.000
2 - Barge Way		ONE HOUR	✓	158	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	71	0	4
	2 - Barge Way	23	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	49	0	25
	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	3.90	0.1	A	69	103
2 - Barge Way	0.15	3.66	0.2	A	145	217
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.33	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	56	19	0.0	0.1	3.697	A
2 - Barge Way	119	30	3	1158	0.103	118	160	0.0	0.1	3.462	A
3 - Access Road (N)	25	6	108	1387	0.018	25	13	0.0	0.0	2.642	A
4 - Private Road	82	21	44	1215	0.068	82	89	0.0	0.1	3.177	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	191	0.1	0.1	3.544	A
3 - Access Road (N)	30	7	129	1370	0.022	30	16	0.0	0.0	2.684	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.239	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	234	0.1	0.2	3.661	A
3 - Access Road (N)	36	9	158	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	235	0.2	0.2	3.661	A
3 - Access Road (N)	36	9	159	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	192	0.2	0.1	3.548	A
3 - Access Road (N)	30	7	130	1370	0.022	30	16	0.0	0.0	2.687	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.243	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	57	19	0.1	0.1	3.702	A
2 - Barge Way	119	30	3	1158	0.103	119	160	0.1	0.1	3.465	A
3 - Access Road (N)	25	6	109	1387	0.018	25	14	0.0	0.0	2.643	A
4 - Private Road	82	21	44	1215	0.068	82	90	0.1	0.1	3.180	A

# 2024 + K3 and WKN Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.44	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	57	100.000
2 - Barge Way		ONE HOUR	✓	229	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	35	0	22
	2 - Barge Way	70	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	97	0	100
	2 - Barge Way	59	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0



## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	5.16	0.1	A	52	78
2 - Barge Way	0.22	4.13	0.3	A	210	315
3 - Access Road (N)	0.02	2.86	0.0	A	18	28
4 - Private Road	0.12	4.75	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	70	774	0.055	43	68	0.0	0.1	4.919	A
2 - Barge Way	172	43	17	1131	0.153	172	95	0.0	0.2	3.753	A
3 - Access Road (N)	15	4	154	1340	0.011	15	34	0.0	0.0	2.715	A
4 - Private Road	69	17	69	876	0.079	69	100	0.0	0.1	4.459	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	84	768	0.067	51	82	0.1	0.1	5.020	A
2 - Barge Way	206	51	21	1128	0.183	206	114	0.2	0.2	3.905	A
3 - Access Road (N)	18	4	185	1314	0.014	18	41	0.0	0.0	2.776	A
4 - Private Road	83	21	83	869	0.095	83	120	0.1	0.1	4.579	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	63	16	102	760	0.083	63	100	0.1	0.1	5.162	A
2 - Barge Way	252	63	25	1124	0.224	252	140	0.2	0.3	4.128	A
3 - Access Road (N)	22	6	227	1279	0.017	22	51	0.0	0.0	2.862	A
4 - Private Road	101	25	101	859	0.118	101	147	0.1	0.1	4.750	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	63	16	102	760	0.083	63	100	0.1	0.1	5.163	A
2 - Barge Way	252	63	25	1124	0.224	252	140	0.3	0.3	4.130	A
3 - Access Road (N)	22	6	227	1279	0.017	22	51	0.0	0.0	2.862	A
4 - Private Road	101	25	101	859	0.118	101	148	0.1	0.1	4.750	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	84	768	0.067	51	82	0.1	0.1	5.021	A
2 - Barge Way	206	51	21	1128	0.183	206	114	0.3	0.2	3.907	A
3 - Access Road (N)	18	4	185	1314	0.014	18	41	0.0	0.0	2.779	A
4 - Private Road	83	21	83	869	0.095	83	121	0.1	0.1	4.581	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	70	774	0.055	43	69	0.1	0.1	4.925	A
2 - Barge Way	172	43	17	1130	0.153	173	96	0.2	0.2	3.758	A
3 - Access Road (N)	15	4	155	1340	0.011	15	35	0.0	0.0	2.717	A
4 - Private Road	69	17	69	876	0.079	69	101	0.1	0.1	4.466	A

# 2024 + K3 and WKN Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.72	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	97	100.000
2 - Barge Way		ONE HOUR	✓	169	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	93	0	4
	2 - Barge Way	34	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	50	0	25
	2 - Barge Way	97	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.11	4.04	0.1	A	89	134
2 - Barge Way	0.17	3.85	0.2	A	155	233
3 - Access Road (N)	0.03	2.77	0.0	A	30	45
4 - Private Road	0.10	3.37	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	73	18	107	1021	0.072	73	27	0.0	0.1	3.796	A
2 - Barge Way	127	32	3	1122	0.113	127	176	0.0	0.1	3.613	A
3 - Access Road (N)	25	6	116	1378	0.018	25	13	0.0	0.0	2.660	A
4 - Private Road	82	21	52	1207	0.068	82	89	0.0	0.1	3.200	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	87	22	128	1011	0.086	87	32	0.1	0.1	3.895	A
2 - Barge Way	152	38	4	1122	0.135	152	211	0.1	0.2	3.709	A
3 - Access Road (N)	30	7	139	1359	0.022	30	16	0.0	0.0	2.706	A
4 - Private Road	98	24	62	1199	0.082	98	107	0.1	0.1	3.268	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	107	27	156	998	0.107	107	40	0.1	0.1	4.039	A
2 - Barge Way	186	47	4	1122	0.166	186	259	0.2	0.2	3.847	A
3 - Access Road (N)	36	9	171	1334	0.027	36	20	0.0	0.0	2.772	A
4 - Private Road	120	30	76	1189	0.101	120	131	0.1	0.1	3.366	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	107	27	156	998	0.107	107	40	0.1	0.1	4.040	A
2 - Barge Way	186	47	4	1122	0.166	186	259	0.2	0.2	3.847	A
3 - Access Road (N)	36	9	171	1334	0.027	36	20	0.0	0.0	2.773	A
4 - Private Road	120	30	76	1189	0.101	120	131	0.1	0.1	3.366	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	87	22	128	1011	0.086	87	32	0.1	0.1	3.898	A
2 - Barge Way	152	38	4	1122	0.135	152	211	0.2	0.2	3.711	A
3 - Access Road (N)	30	7	139	1359	0.022	30	16	0.0	0.0	2.709	A
4 - Private Road	98	24	62	1199	0.082	98	107	0.1	0.1	3.268	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	73	18	107	1021	0.072	73	27	0.1	0.1	3.797	A
2 - Barge Way	127	32	3	1122	0.113	127	177	0.2	0.1	3.620	A
3 - Access Road (N)	25	6	117	1377	0.018	25	14	0.0	0.0	2.663	A
4 - Private Road	82	21	52	1207	0.068	82	90	0.1	0.1	3.203	A

# 2024 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.31	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	46	100.000
2 - Barge Way		ONE HOUR	✓	219	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	24	0	22
	2 - Barge Way	60	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
From		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
	1 - Access (S)	0	96	0	100
	2 - Barge Way	52	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.07	5.07	0.1	A	42	63
2 - Barge Way	0.21	3.97	0.3	A	201	301
3 - Access Road (N)	0.02	2.83	0.0	A	18	28
4 - Private Road	0.12	4.70	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.045	34	61	0.0	0.0	4.857	A
2 - Barge Way	165	41	17	1156	0.143	164	87	0.0	0.2	3.629	A
3 - Access Road (N)	15	4	147	1349	0.011	15	34	0.0	0.0	2.698	A
4 - Private Road	69	17	62	881	0.079	69	100	0.0	0.1	4.429	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	41	10	84	769	0.054	41	73	0.0	0.1	4.945	A
2 - Barge Way	197	49	21	1153	0.171	197	104	0.2	0.2	3.764	A
3 - Access Road (N)	18	4	176	1325	0.014	18	41	0.0	0.0	2.754	A
4 - Private Road	83	21	74	875	0.095	83	120	0.1	0.1	4.542	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	102	761	0.067	51	89	0.1	0.1	5.067	A
2 - Barge Way	241	60	25	1149	0.210	241	128	0.2	0.3	3.964	A
3 - Access Road (N)	22	6	216	1292	0.017	22	51	0.0	0.0	2.834	A
4 - Private Road	101	25	90	867	0.117	101	147	0.1	0.1	4.701	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	102	761	0.067	51	89	0.1	0.1	5.068	A
2 - Barge Way	241	60	25	1149	0.210	241	128	0.3	0.3	3.965	A
3 - Access Road (N)	22	6	216	1292	0.017	22	51	0.0	0.0	2.834	A
4 - Private Road	101	25	90	867	0.117	101	148	0.1	0.1	4.701	A

**08:15 - 08:30**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	41	10	84	769	0.054	41	73	0.1	0.1	4.948	A
2 - Barge Way	197	49	21	1153	0.171	197	104	0.3	0.2	3.766	A
3 - Access Road (N)	18	4	176	1324	0.014	18	41	0.0	0.0	2.757	A
4 - Private Road	83	21	74	875	0.095	83	121	0.1	0.1	4.545	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.045	35	61	0.1	0.0	4.861	A
2 - Barge Way	165	41	17	1156	0.143	165	87	0.2	0.2	3.633	A
3 - Access Road (N)	15	4	148	1348	0.011	15	35	0.0	0.0	2.702	A
4 - Private Road	69	17	62	881	0.079	69	101	0.1	0.1	4.434	A



# 2024 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.56	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	75	100.000
2 - Barge Way		ONE HOUR	✓	158	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	71	0	4
	2 - Barge Way	23	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
From		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
	1 - Access (S)	0	49	0	25
	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	3.90	0.1	A	69	103
2 - Barge Way	0.15	3.66	0.2	A	145	217
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.33	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	56	19	0.0	0.1	3.697	A
2 - Barge Way	119	30	3	1158	0.103	118	160	0.0	0.1	3.462	A
3 - Access Road (N)	25	6	108	1387	0.018	25	13	0.0	0.0	2.642	A
4 - Private Road	82	21	44	1215	0.068	82	89	0.0	0.1	3.177	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	191	0.1	0.1	3.544	A
3 - Access Road (N)	30	7	129	1370	0.022	30	16	0.0	0.0	2.684	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.239	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	234	0.1	0.2	3.661	A
3 - Access Road (N)	36	9	158	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	235	0.2	0.2	3.661	A
3 - Access Road (N)	36	9	159	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	192	0.2	0.1	3.548	A
3 - Access Road (N)	30	7	130	1370	0.022	30	16	0.0	0.0	2.687	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.243	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	57	19	0.1	0.1	3.702	A
2 - Barge Way	119	30	3	1158	0.103	119	160	0.1	0.1	3.465	A
3 - Access Road (N)	25	6	109	1387	0.018	25	14	0.0	0.0	2.643	A
4 - Private Road	82	21	44	1215	0.068	82	90	0.1	0.1	3.180	A

# 2024 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.44	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	57	100.000
2 - Barge Way		ONE HOUR	✓	229	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From	To			
	1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
1 - Access (S)	0	35	0	22
2 - Barge Way	70	2	46	111
3 - Access Road (N)	0	20	0	0
4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From				
1 - Access (S)	0	97	0	100
2 - Barge Way	59	50	0	36
3 - Access Road (N)	0	0	0	0
4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	5.16	0.1	A	52	78
2 - Barge Way	0.22	4.13	0.3	A	210	315
3 - Access Road (N)	0.02	2.86	0.0	A	18	28
4 - Private Road	0.12	4.75	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	70	774	0.055	43	68	0.0	0.1	4.919	A
2 - Barge Way	172	43	17	1131	0.153	172	95	0.0	0.2	3.753	A
3 - Access Road (N)	15	4	154	1340	0.011	15	34	0.0	0.0	2.715	A
4 - Private Road	69	17	69	876	0.079	69	100	0.0	0.1	4.459	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	84	768	0.067	51	82	0.1	0.1	5.020	A
2 - Barge Way	206	51	21	1128	0.183	206	114	0.2	0.2	3.905	A
3 - Access Road (N)	18	4	185	1314	0.014	18	41	0.0	0.0	2.776	A
4 - Private Road	83	21	83	869	0.095	83	120	0.1	0.1	4.579	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	63	16	102	760	0.083	63	100	0.1	0.1	5.162	A
2 - Barge Way	252	63	25	1124	0.224	252	140	0.2	0.3	4.128	A
3 - Access Road (N)	22	6	227	1279	0.017	22	51	0.0	0.0	2.862	A
4 - Private Road	101	25	101	859	0.118	101	147	0.1	0.1	4.750	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	63	16	102	760	0.083	63	100	0.1	0.1	5.163	A
2 - Barge Way	252	63	25	1124	0.224	252	140	0.3	0.3	4.130	A
3 - Access Road (N)	22	6	227	1279	0.017	22	51	0.0	0.0	2.862	A
4 - Private Road	101	25	101	859	0.118	101	148	0.1	0.1	4.750	A

**08:15 - 08:30**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	84	768	0.067	51	82	0.1	0.1	5.021	A
2 - Barge Way	206	51	21	1128	0.183	206	114	0.3	0.2	3.907	A
3 - Access Road (N)	18	4	185	1314	0.014	18	41	0.0	0.0	2.779	A
4 - Private Road	83	21	83	869	0.095	83	121	0.1	0.1	4.581	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	70	774	0.055	43	69	0.1	0.1	4.925	A
2 - Barge Way	172	43	17	1130	0.153	173	96	0.2	0.2	3.758	A
3 - Access Road (N)	15	4	155	1340	0.011	15	35	0.0	0.0	2.717	A
4 - Private Road	69	17	69	876	0.079	69	101	0.1	0.1	4.466	A

# 2024 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.72	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	97	100.000
2 - Barge Way		ONE HOUR	✓	169	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	93	0	4
	2 - Barge Way	34	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
From		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
	1 - Access (S)	0	50	0	25
	2 - Barge Way	97	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.11	4.04	0.1	A	89	134
2 - Barge Way	0.17	3.85	0.2	A	155	233
3 - Access Road (N)	0.03	2.77	0.0	A	30	45
4 - Private Road	0.10	3.37	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	73	18	107	1021	0.072	73	27	0.0	0.1	3.796	A
2 - Barge Way	127	32	3	1122	0.113	127	176	0.0	0.1	3.613	A
3 - Access Road (N)	25	6	116	1378	0.018	25	13	0.0	0.0	2.660	A
4 - Private Road	82	21	52	1207	0.068	82	89	0.0	0.1	3.200	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	87	22	128	1011	0.086	87	32	0.1	0.1	3.895	A
2 - Barge Way	152	38	4	1122	0.135	152	211	0.1	0.2	3.709	A
3 - Access Road (N)	30	7	139	1359	0.022	30	16	0.0	0.0	2.706	A
4 - Private Road	98	24	62	1199	0.082	98	107	0.1	0.1	3.268	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	107	27	156	998	0.107	107	40	0.1	0.1	4.039	A
2 - Barge Way	186	47	4	1122	0.166	186	259	0.2	0.2	3.847	A
3 - Access Road (N)	36	9	171	1334	0.027	36	20	0.0	0.0	2.772	A
4 - Private Road	120	30	76	1189	0.101	120	131	0.1	0.1	3.366	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	107	27	156	998	0.107	107	40	0.1	0.1	4.040	A
2 - Barge Way	186	47	4	1122	0.166	186	259	0.2	0.2	3.847	A
3 - Access Road (N)	36	9	171	1334	0.027	36	20	0.0	0.0	2.773	A
4 - Private Road	120	30	76	1189	0.101	120	131	0.1	0.1	3.366	A



17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	87	22	128	1011	0.086	87	32	0.1	0.1	3.898	A
2 - Barge Way	152	38	4	1122	0.135	152	211	0.2	0.2	3.711	A
3 - Access Road (N)	30	7	139	1359	0.022	30	16	0.0	0.0	2.709	A
4 - Private Road	98	24	62	1199	0.082	98	107	0.1	0.1	3.268	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	73	18	107	1021	0.072	73	27	0.1	0.1	3.797	A
2 - Barge Way	127	32	3	1122	0.113	127	177	0.2	0.1	3.620	A
3 - Access Road (N)	25	6	117	1377	0.018	25	14	0.0	0.0	2.663	A
4 - Private Road	82	21	52	1207	0.068	82	90	0.1	0.1	3.203	A

# 2031, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.11	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	31	100.000
2 - Barge Way		ONE HOUR	✓	191	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	9	0	22
	2 - Barge Way	32	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	89	0	100
	2 - Barge Way	47	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.04	4.92	0.0	A	28	43
2 - Barge Way	0.18	3.71	0.2	A	175	263
3 - Access Road (N)	0.02	2.77	0.0	A	18	28
4 - Private Road	0.11	4.60	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	23	6	70	780	0.030	23	40	0.0	0.0	4.759	A
2 - Barge Way	144	36	17	1188	0.121	143	76	0.0	0.1	3.443	A
3 - Access Road (N)	15	4	126	1367	0.011	15	34	0.0	0.0	2.661	A
4 - Private Road	69	17	41	893	0.078	69	100	0.0	0.1	4.365	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	28	7	84	774	0.036	28	48	0.0	0.0	4.827	A
2 - Barge Way	172	43	21	1185	0.145	172	91	0.1	0.2	3.551	A
3 - Access Road (N)	18	4	151	1347	0.013	18	41	0.0	0.0	2.708	A
4 - Private Road	83	21	49	889	0.093	83	120	0.1	0.1	4.462	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	34	9	102	765	0.045	34	58	0.0	0.0	4.923	A
2 - Barge Way	210	53	25	1181	0.178	210	111	0.2	0.2	3.707	A
3 - Access Road (N)	22	6	185	1319	0.017	22	51	0.0	0.0	2.775	A
4 - Private Road	101	25	59	884	0.115	101	147	0.1	0.1	4.596	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	34	9	102	765	0.045	34	58	0.0	0.0	4.923	A
2 - Barge Way	210	53	25	1181	0.178	210	111	0.2	0.2	3.707	A
3 - Access Road (N)	22	6	185	1319	0.017	22	51	0.0	0.0	2.775	A
4 - Private Road	101	25	59	884	0.115	101	148	0.1	0.1	4.596	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	28	7	84	773	0.036	28	48	0.0	0.0	4.830	A
2 - Barge Way	172	43	21	1185	0.145	172	91	0.2	0.2	3.552	A
3 - Access Road (N)	18	4	151	1347	0.013	18	41	0.0	0.0	2.711	A
4 - Private Road	83	21	49	889	0.093	83	121	0.1	0.1	4.465	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	23	6	70	780	0.030	23	40	0.0	0.0	4.760	A
2 - Barge Way	144	36	17	1188	0.121	144	76	0.2	0.1	3.449	A
3 - Access Road (N)	15	4	127	1367	0.011	15	35	0.0	0.0	2.664	A
4 - Private Road	69	17	41	893	0.078	69	101	0.1	0.1	4.372	A

# 2031, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.35	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	48	100.000
2 - Barge Way		ONE HOUR	✓	143	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	44	0	4
	2 - Barge Way	8	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	46	0	25
	2 - Barge Way	88	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.05	3.68	0.1	A	44	66
2 - Barge Way	0.13	3.39	0.1	A	131	197
3 - Access Road (N)	0.03	2.71	0.0	A	30	45
4 - Private Road	0.10	3.28	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	36	9	107	1054	0.034	36	8	0.0	0.0	3.534	A
2 - Barge Way	108	27	3	1221	0.088	107	140	0.0	0.1	3.233	A
3 - Access Road (N)	25	6	97	1400	0.018	25	14	0.0	0.0	2.618	A
4 - Private Road	82	21	32	1226	0.067	82	89	0.0	0.1	3.146	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	128	1044	0.041	43	9	0.0	0.0	3.594	A
2 - Barge Way	129	32	4	1220	0.105	128	167	0.1	0.1	3.296	A
3 - Access Road (N)	30	7	116	1386	0.021	30	16	0.0	0.0	2.654	A
4 - Private Road	98	24	39	1222	0.080	98	107	0.1	0.1	3.201	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	53	13	156	1030	0.051	53	11	0.0	0.1	3.681	A
2 - Barge Way	157	39	4	1220	0.129	157	205	0.1	0.1	3.387	A
3 - Access Road (N)	36	9	142	1366	0.027	36	20	0.0	0.0	2.706	A
4 - Private Road	120	30	47	1217	0.099	120	131	0.1	0.1	3.280	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	53	13	156	1030	0.051	53	11	0.1	0.1	3.681	A
2 - Barge Way	157	39	4	1220	0.129	157	205	0.1	0.1	3.387	A
3 - Access Road (N)	36	9	142	1366	0.027	36	20	0.0	0.0	2.706	A
4 - Private Road	120	30	47	1217	0.099	120	131	0.1	0.1	3.280	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	128	1044	0.041	43	9	0.1	0.0	3.595	A
2 - Barge Way	129	32	4	1220	0.105	129	167	0.1	0.1	3.297	A
3 - Access Road (N)	30	7	116	1385	0.021	30	16	0.0	0.0	2.657	A
4 - Private Road	98	24	39	1222	0.080	98	107	0.1	0.1	3.202	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	36	9	107	1054	0.034	36	8	0.0	0.0	3.535	A
2 - Barge Way	108	27	3	1221	0.088	108	140	0.1	0.1	3.234	A
3 - Access Road (N)	25	6	97	1399	0.018	25	14	0.0	0.0	2.618	A
4 - Private Road	82	21	32	1226	0.067	82	90	0.1	0.1	3.147	A

# 2031 + Cumulative , AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.11	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D21	2031 + Cumulative	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	31	100.000
2 - Barge Way		ONE HOUR	✓	191	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	9	0	22
	2 - Barge Way	32	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	89	0	100
	2 - Barge Way	47	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0



## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.04	4.92	0.0	A	28	43
2 - Barge Way	0.18	3.71	0.2	A	175	263
3 - Access Road (N)	0.02	2.77	0.0	A	18	28
4 - Private Road	0.11	4.60	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	23	6	70	780	0.030	23	40	0.0	0.0	4.759	A
2 - Barge Way	144	36	17	1188	0.121	143	76	0.0	0.1	3.443	A
3 - Access Road (N)	15	4	126	1367	0.011	15	34	0.0	0.0	2.661	A
4 - Private Road	69	17	41	893	0.078	69	100	0.0	0.1	4.365	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	28	7	84	774	0.036	28	48	0.0	0.0	4.827	A
2 - Barge Way	172	43	21	1185	0.145	172	91	0.1	0.2	3.551	A
3 - Access Road (N)	18	4	151	1347	0.013	18	41	0.0	0.0	2.708	A
4 - Private Road	83	21	49	889	0.093	83	120	0.1	0.1	4.462	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	34	9	102	765	0.045	34	58	0.0	0.0	4.923	A
2 - Barge Way	210	53	25	1181	0.178	210	111	0.2	0.2	3.707	A
3 - Access Road (N)	22	6	185	1319	0.017	22	51	0.0	0.0	2.775	A
4 - Private Road	101	25	59	884	0.115	101	147	0.1	0.1	4.596	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	34	9	102	765	0.045	34	58	0.0	0.0	4.923	A
2 - Barge Way	210	53	25	1181	0.178	210	111	0.2	0.2	3.707	A
3 - Access Road (N)	22	6	185	1319	0.017	22	51	0.0	0.0	2.775	A
4 - Private Road	101	25	59	884	0.115	101	148	0.1	0.1	4.596	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	28	7	84	773	0.036	28	48	0.0	0.0	4.830	A
2 - Barge Way	172	43	21	1185	0.145	172	91	0.2	0.2	3.552	A
3 - Access Road (N)	18	4	151	1347	0.013	18	41	0.0	0.0	2.711	A
4 - Private Road	83	21	49	889	0.093	83	121	0.1	0.1	4.465	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	23	6	70	780	0.030	23	40	0.0	0.0	4.760	A
2 - Barge Way	144	36	17	1188	0.121	144	76	0.2	0.1	3.449	A
3 - Access Road (N)	15	4	127	1367	0.011	15	35	0.0	0.0	2.664	A
4 - Private Road	69	17	41	893	0.078	69	101	0.1	0.1	4.372	A

# 2031 + Cumulative, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.35	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D22	2031 + Cumulative	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	48	100.000
2 - Barge Way		ONE HOUR	✓	143	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	44	0	4
	2 - Barge Way	8	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	46	0	25
	2 - Barge Way	88	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.05	3.68	0.1	A	44	66
2 - Barge Way	0.13	3.39	0.1	A	131	197
3 - Access Road (N)	0.03	2.71	0.0	A	30	45
4 - Private Road	0.10	3.28	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	36	9	107	1054	0.034	36	8	0.0	0.0	3.534	A
2 - Barge Way	108	27	3	1221	0.088	107	140	0.0	0.1	3.233	A
3 - Access Road (N)	25	6	97	1400	0.018	25	14	0.0	0.0	2.618	A
4 - Private Road	82	21	32	1226	0.067	82	89	0.0	0.1	3.146	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	128	1044	0.041	43	9	0.0	0.0	3.594	A
2 - Barge Way	129	32	4	1220	0.105	128	167	0.1	0.1	3.296	A
3 - Access Road (N)	30	7	116	1386	0.021	30	16	0.0	0.0	2.654	A
4 - Private Road	98	24	39	1222	0.080	98	107	0.1	0.1	3.201	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	53	13	156	1030	0.051	53	11	0.0	0.1	3.681	A
2 - Barge Way	157	39	4	1220	0.129	157	205	0.1	0.1	3.387	A
3 - Access Road (N)	36	9	142	1366	0.027	36	20	0.0	0.0	2.706	A
4 - Private Road	120	30	47	1217	0.099	120	131	0.1	0.1	3.280	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	53	13	156	1030	0.051	53	11	0.1	0.1	3.681	A
2 - Barge Way	157	39	4	1220	0.129	157	205	0.1	0.1	3.387	A
3 - Access Road (N)	36	9	142	1366	0.027	36	20	0.0	0.0	2.706	A
4 - Private Road	120	30	47	1217	0.099	120	131	0.1	0.1	3.280	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	128	1044	0.041	43	9	0.1	0.0	3.595	A
2 - Barge Way	129	32	4	1220	0.105	129	167	0.1	0.1	3.297	A
3 - Access Road (N)	30	7	116	1385	0.021	30	16	0.0	0.0	2.657	A
4 - Private Road	98	24	39	1222	0.080	98	107	0.1	0.1	3.202	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	36	9	107	1054	0.034	36	8	0.0	0.0	3.535	A
2 - Barge Way	108	27	3	1221	0.088	108	140	0.1	0.1	3.234	A
3 - Access Road (N)	25	6	97	1399	0.018	25	14	0.0	0.0	2.618	A
4 - Private Road	82	21	32	1226	0.067	82	90	0.1	0.1	3.147	A

# 2031 + K3 Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.31	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D23	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	46	100.000
2 - Barge Way		ONE HOUR	✓	219	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	24	0	22
	2 - Barge Way	60	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	96	0	100
	2 - Barge Way	52	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.07	5.07	0.1	A	42	63
2 - Barge Way	0.21	3.97	0.3	A	201	301
3 - Access Road (N)	0.02	2.83	0.0	A	18	28
4 - Private Road	0.12	4.70	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.045	34	61	0.0	0.0	4.857	A
2 - Barge Way	165	41	17	1156	0.143	164	87	0.0	0.2	3.629	A
3 - Access Road (N)	15	4	147	1349	0.011	15	34	0.0	0.0	2.698	A
4 - Private Road	69	17	62	881	0.079	69	100	0.0	0.1	4.429	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	41	10	84	769	0.054	41	73	0.0	0.1	4.945	A
2 - Barge Way	197	49	21	1153	0.171	197	104	0.2	0.2	3.764	A
3 - Access Road (N)	18	4	176	1325	0.014	18	41	0.0	0.0	2.754	A
4 - Private Road	83	21	74	875	0.095	83	120	0.1	0.1	4.542	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	102	761	0.067	51	89	0.1	0.1	5.067	A
2 - Barge Way	241	60	25	1149	0.210	241	128	0.2	0.3	3.964	A
3 - Access Road (N)	22	6	216	1292	0.017	22	51	0.0	0.0	2.834	A
4 - Private Road	101	25	90	867	0.117	101	147	0.1	0.1	4.701	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	102	761	0.067	51	89	0.1	0.1	5.068	A
2 - Barge Way	241	60	25	1149	0.210	241	128	0.3	0.3	3.965	A
3 - Access Road (N)	22	6	216	1292	0.017	22	51	0.0	0.0	2.834	A
4 - Private Road	101	25	90	867	0.117	101	148	0.1	0.1	4.701	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	41	10	84	769	0.054	41	73	0.1	0.1	4.948	A
2 - Barge Way	197	49	21	1153	0.171	197	104	0.3	0.2	3.766	A
3 - Access Road (N)	18	4	176	1324	0.014	18	41	0.0	0.0	2.757	A
4 - Private Road	83	21	74	875	0.095	83	121	0.1	0.1	4.545	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.045	35	61	0.1	0.0	4.861	A
2 - Barge Way	165	41	17	1156	0.143	165	87	0.2	0.2	3.633	A
3 - Access Road (N)	15	4	148	1348	0.011	15	35	0.0	0.0	2.702	A
4 - Private Road	69	17	62	881	0.079	69	101	0.1	0.1	4.434	A



# 2031 + K3 Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.56	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D24	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	75	100.000
2 - Barge Way		ONE HOUR	✓	158	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	71	0	4
	2 - Barge Way	23	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	49	0	25
	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	3.90	0.1	A	69	103
2 - Barge Way	0.15	3.66	0.2	A	145	217
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.33	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	56	19	0.0	0.1	3.697	A
2 - Barge Way	119	30	3	1158	0.103	118	160	0.0	0.1	3.462	A
3 - Access Road (N)	25	6	108	1387	0.018	25	13	0.0	0.0	2.642	A
4 - Private Road	82	21	44	1215	0.068	82	89	0.0	0.1	3.177	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	191	0.1	0.1	3.544	A
3 - Access Road (N)	30	7	129	1370	0.022	30	16	0.0	0.0	2.684	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.239	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	234	0.1	0.2	3.661	A
3 - Access Road (N)	36	9	158	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	235	0.2	0.2	3.661	A
3 - Access Road (N)	36	9	159	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	192	0.2	0.1	3.548	A
3 - Access Road (N)	30	7	130	1370	0.022	30	16	0.0	0.0	2.687	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.243	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	57	19	0.1	0.1	3.702	A
2 - Barge Way	119	30	3	1158	0.103	119	160	0.1	0.1	3.465	A
3 - Access Road (N)	25	6	109	1387	0.018	25	14	0.0	0.0	2.643	A
4 - Private Road	82	21	44	1215	0.068	82	90	0.1	0.1	3.180	A

# 2031 + K3 and WKN Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.44	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D27	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	57	100.000
2 - Barge Way		ONE HOUR	✓	229	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	35	0	22
	2 - Barge Way	70	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	97	0	100
	2 - Barge Way	59	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	5.16	0.1	A	52	78
2 - Barge Way	0.22	4.13	0.3	A	210	315
3 - Access Road (N)	0.02	2.86	0.0	A	18	28
4 - Private Road	0.12	4.75	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	70	774	0.055	43	68	0.0	0.1	4.919	A
2 - Barge Way	172	43	17	1131	0.153	172	95	0.0	0.2	3.753	A
3 - Access Road (N)	15	4	154	1340	0.011	15	34	0.0	0.0	2.715	A
4 - Private Road	69	17	69	876	0.079	69	100	0.0	0.1	4.459	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	84	768	0.067	51	82	0.1	0.1	5.020	A
2 - Barge Way	206	51	21	1128	0.183	206	114	0.2	0.2	3.905	A
3 - Access Road (N)	18	4	185	1314	0.014	18	41	0.0	0.0	2.776	A
4 - Private Road	83	21	83	869	0.095	83	120	0.1	0.1	4.579	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	63	16	102	760	0.083	63	100	0.1	0.1	5.162	A
2 - Barge Way	252	63	25	1124	0.224	252	140	0.2	0.3	4.128	A
3 - Access Road (N)	22	6	227	1279	0.017	22	51	0.0	0.0	2.862	A
4 - Private Road	101	25	101	859	0.118	101	147	0.1	0.1	4.750	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	63	16	102	760	0.083	63	100	0.1	0.1	5.163	A
2 - Barge Way	252	63	25	1124	0.224	252	140	0.3	0.3	4.130	A
3 - Access Road (N)	22	6	227	1279	0.017	22	51	0.0	0.0	2.862	A
4 - Private Road	101	25	101	859	0.118	101	148	0.1	0.1	4.750	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	84	768	0.067	51	82	0.1	0.1	5.021	A
2 - Barge Way	206	51	21	1128	0.183	206	114	0.3	0.2	3.907	A
3 - Access Road (N)	18	4	185	1314	0.014	18	41	0.0	0.0	2.779	A
4 - Private Road	83	21	83	869	0.095	83	121	0.1	0.1	4.581	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	70	774	0.055	43	69	0.1	0.1	4.925	A
2 - Barge Way	172	43	17	1130	0.153	173	96	0.2	0.2	3.758	A
3 - Access Road (N)	15	4	155	1340	0.011	15	35	0.0	0.0	2.717	A
4 - Private Road	69	17	69	876	0.079	69	101	0.1	0.1	4.466	A

# 2031 + K3 and WKN Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.72	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D28	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	97	100.000
2 - Barge Way		ONE HOUR	✓	169	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	93	0	4
	2 - Barge Way	34	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	50	0	25
	2 - Barge Way	97	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.11	4.04	0.1	A	89	134
2 - Barge Way	0.17	3.85	0.2	A	155	233
3 - Access Road (N)	0.03	2.77	0.0	A	30	45
4 - Private Road	0.10	3.37	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	73	18	107	1021	0.072	73	27	0.0	0.1	3.796	A
2 - Barge Way	127	32	3	1122	0.113	127	176	0.0	0.1	3.613	A
3 - Access Road (N)	25	6	116	1378	0.018	25	13	0.0	0.0	2.660	A
4 - Private Road	82	21	52	1207	0.068	82	89	0.0	0.1	3.200	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	87	22	128	1011	0.086	87	32	0.1	0.1	3.895	A
2 - Barge Way	152	38	4	1122	0.135	152	211	0.1	0.2	3.709	A
3 - Access Road (N)	30	7	139	1359	0.022	30	16	0.0	0.0	2.706	A
4 - Private Road	98	24	62	1199	0.082	98	107	0.1	0.1	3.268	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	107	27	156	998	0.107	107	40	0.1	0.1	4.039	A
2 - Barge Way	186	47	4	1122	0.166	186	259	0.2	0.2	3.847	A
3 - Access Road (N)	36	9	171	1334	0.027	36	20	0.0	0.0	2.772	A
4 - Private Road	120	30	76	1189	0.101	120	131	0.1	0.1	3.366	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	107	27	156	998	0.107	107	40	0.1	0.1	4.040	A
2 - Barge Way	186	47	4	1122	0.166	186	259	0.2	0.2	3.847	A
3 - Access Road (N)	36	9	171	1334	0.027	36	20	0.0	0.0	2.773	A
4 - Private Road	120	30	76	1189	0.101	120	131	0.1	0.1	3.366	A



17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	87	22	128	1011	0.086	87	32	0.1	0.1	3.898	A
2 - Barge Way	152	38	4	1122	0.135	152	211	0.2	0.2	3.711	A
3 - Access Road (N)	30	7	139	1359	0.022	30	16	0.0	0.0	2.709	A
4 - Private Road	98	24	62	1199	0.082	98	107	0.1	0.1	3.268	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	73	18	107	1021	0.072	73	27	0.1	0.1	3.797	A
2 - Barge Way	127	32	3	1122	0.113	127	177	0.2	0.1	3.620	A
3 - Access Road (N)	25	6	117	1377	0.018	25	14	0.0	0.0	2.663	A
4 - Private Road	82	21	52	1207	0.068	82	90	0.1	0.1	3.203	A

# 2031 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.31	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D29	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	46	100.000
2 - Barge Way		ONE HOUR	✓	219	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	24	0	22
	2 - Barge Way	60	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

From	To			
	1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
1 - Access (S)	0	96	0	100
2 - Barge Way	52	50	0	36
3 - Access Road (N)	0	0	0	0
4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.07	5.07	0.1	A	42	63
2 - Barge Way	0.21	3.97	0.3	A	201	301
3 - Access Road (N)	0.02	2.83	0.0	A	18	28
4 - Private Road	0.12	4.70	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.045	34	61	0.0	0.0	4.857	A
2 - Barge Way	165	41	17	1156	0.143	164	87	0.0	0.2	3.629	A
3 - Access Road (N)	15	4	147	1349	0.011	15	34	0.0	0.0	2.698	A
4 - Private Road	69	17	62	881	0.079	69	100	0.0	0.1	4.429	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	41	10	84	769	0.054	41	73	0.0	0.1	4.945	A
2 - Barge Way	197	49	21	1153	0.171	197	104	0.2	0.2	3.764	A
3 - Access Road (N)	18	4	176	1325	0.014	18	41	0.0	0.0	2.754	A
4 - Private Road	83	21	74	875	0.095	83	120	0.1	0.1	4.542	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	102	761	0.067	51	89	0.1	0.1	5.067	A
2 - Barge Way	241	60	25	1149	0.210	241	128	0.2	0.3	3.964	A
3 - Access Road (N)	22	6	216	1292	0.017	22	51	0.0	0.0	2.834	A
4 - Private Road	101	25	90	867	0.117	101	147	0.1	0.1	4.701	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	102	761	0.067	51	89	0.1	0.1	5.068	A
2 - Barge Way	241	60	25	1149	0.210	241	128	0.3	0.3	3.965	A
3 - Access Road (N)	22	6	216	1292	0.017	22	51	0.0	0.0	2.834	A
4 - Private Road	101	25	90	867	0.117	101	148	0.1	0.1	4.701	A

**08:15 - 08:30**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	41	10	84	769	0.054	41	73	0.1	0.1	4.948	A
2 - Barge Way	197	49	21	1153	0.171	197	104	0.3	0.2	3.766	A
3 - Access Road (N)	18	4	176	1324	0.014	18	41	0.0	0.0	2.757	A
4 - Private Road	83	21	74	875	0.095	83	121	0.1	0.1	4.545	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.045	35	61	0.1	0.0	4.861	A
2 - Barge Way	165	41	17	1156	0.143	165	87	0.2	0.2	3.633	A
3 - Access Road (N)	15	4	148	1348	0.011	15	35	0.0	0.0	2.702	A
4 - Private Road	69	17	62	881	0.079	69	101	0.1	0.1	4.434	A

# 2031 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.56	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D30	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	75	100.000
2 - Barge Way		ONE HOUR	✓	158	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	71	0	4
	2 - Barge Way	23	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From				
1 - Access (S)	0	49	0	25
2 - Barge Way	96	50	0	27
3 - Access Road (N)	0	0	0	0
4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	3.90	0.1	A	69	103
2 - Barge Way	0.15	3.66	0.2	A	145	217
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.33	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	56	19	0.0	0.1	3.697	A
2 - Barge Way	119	30	3	1158	0.103	118	160	0.0	0.1	3.462	A
3 - Access Road (N)	25	6	108	1387	0.018	25	13	0.0	0.0	2.642	A
4 - Private Road	82	21	44	1215	0.068	82	89	0.0	0.1	3.177	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	191	0.1	0.1	3.544	A
3 - Access Road (N)	30	7	129	1370	0.022	30	16	0.0	0.0	2.684	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.239	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	234	0.1	0.2	3.661	A
3 - Access Road (N)	36	9	158	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	235	0.2	0.2	3.661	A
3 - Access Road (N)	36	9	159	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	192	0.2	0.1	3.548	A
3 - Access Road (N)	30	7	130	1370	0.022	30	16	0.0	0.0	2.687	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.243	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	57	19	0.1	0.1	3.702	A
2 - Barge Way	119	30	3	1158	0.103	119	160	0.1	0.1	3.465	A
3 - Access Road (N)	25	6	109	1387	0.018	25	14	0.0	0.0	2.643	A
4 - Private Road	82	21	44	1215	0.068	82	90	0.1	0.1	3.180	A

# 2031 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.44	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D33	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	57	100.000
2 - Barge Way		ONE HOUR	✓	229	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From	To			
	1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
1 - Access (S)	0	35	0	22
2 - Barge Way	70	2	46	111
3 - Access Road (N)	0	20	0	0
4 - Private Road	21	70	0	1

## Vehicle Mix



### Heavy Vehicle Percentages

	To			
	1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From				
1 - Access (S)	0	97	0	100
2 - Barge Way	59	50	0	36
3 - Access Road (N)	0	0	0	0
4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	5.16	0.1	A	52	78
2 - Barge Way	0.22	4.13	0.3	A	210	315
3 - Access Road (N)	0.02	2.86	0.0	A	18	28
4 - Private Road	0.12	4.75	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	70	774	0.055	43	68	0.0	0.1	4.919	A
2 - Barge Way	172	43	17	1131	0.153	172	95	0.0	0.2	3.753	A
3 - Access Road (N)	15	4	154	1340	0.011	15	34	0.0	0.0	2.715	A
4 - Private Road	69	17	69	876	0.079	69	100	0.0	0.1	4.459	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	84	768	0.067	51	82	0.1	0.1	5.020	A
2 - Barge Way	206	51	21	1128	0.183	206	114	0.2	0.2	3.905	A
3 - Access Road (N)	18	4	185	1314	0.014	18	41	0.0	0.0	2.776	A
4 - Private Road	83	21	83	869	0.095	83	120	0.1	0.1	4.579	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	63	16	102	760	0.083	63	100	0.1	0.1	5.162	A
2 - Barge Way	252	63	25	1124	0.224	252	140	0.2	0.3	4.128	A
3 - Access Road (N)	22	6	227	1279	0.017	22	51	0.0	0.0	2.862	A
4 - Private Road	101	25	101	859	0.118	101	147	0.1	0.1	4.750	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	63	16	102	760	0.083	63	100	0.1	0.1	5.163	A
2 - Barge Way	252	63	25	1124	0.224	252	140	0.3	0.3	4.130	A
3 - Access Road (N)	22	6	227	1279	0.017	22	51	0.0	0.0	2.862	A
4 - Private Road	101	25	101	859	0.118	101	148	0.1	0.1	4.750	A

**08:15 - 08:30**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	84	768	0.067	51	82	0.1	0.1	5.021	A
2 - Barge Way	206	51	21	1128	0.183	206	114	0.3	0.2	3.907	A
3 - Access Road (N)	18	4	185	1314	0.014	18	41	0.0	0.0	2.779	A
4 - Private Road	83	21	83	869	0.095	83	121	0.1	0.1	4.581	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	70	774	0.055	43	69	0.1	0.1	4.925	A
2 - Barge Way	172	43	17	1130	0.153	173	96	0.2	0.2	3.758	A
3 - Access Road (N)	15	4	155	1340	0.011	15	35	0.0	0.0	2.717	A
4 - Private Road	69	17	69	876	0.079	69	101	0.1	0.1	4.466	A

# 2031 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.72	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D34	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	97	100.000
2 - Barge Way		ONE HOUR	✓	169	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From	To			
	1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
1 - Access (S)	0	93	0	4
2 - Barge Way	34	2	18	115
3 - Access Road (N)	0	33	0	0
4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
From		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
	1 - Access (S)	0	50	0	25
	2 - Barge Way	97	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.11	4.04	0.1	A	89	134
2 - Barge Way	0.17	3.85	0.2	A	155	233
3 - Access Road (N)	0.03	2.77	0.0	A	30	45
4 - Private Road	0.10	3.37	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	73	18	107	1021	0.072	73	27	0.0	0.1	3.796	A
2 - Barge Way	127	32	3	1122	0.113	127	176	0.0	0.1	3.613	A
3 - Access Road (N)	25	6	116	1378	0.018	25	13	0.0	0.0	2.660	A
4 - Private Road	82	21	52	1207	0.068	82	89	0.0	0.1	3.200	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	87	22	128	1011	0.086	87	32	0.1	0.1	3.895	A
2 - Barge Way	152	38	4	1122	0.135	152	211	0.1	0.2	3.709	A
3 - Access Road (N)	30	7	139	1359	0.022	30	16	0.0	0.0	2.706	A
4 - Private Road	98	24	62	1199	0.082	98	107	0.1	0.1	3.268	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	107	27	156	998	0.107	107	40	0.1	0.1	4.039	A
2 - Barge Way	186	47	4	1122	0.166	186	259	0.2	0.2	3.847	A
3 - Access Road (N)	36	9	171	1334	0.027	36	20	0.0	0.0	2.772	A
4 - Private Road	120	30	76	1189	0.101	120	131	0.1	0.1	3.366	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	107	27	156	998	0.107	107	40	0.1	0.1	4.040	A
2 - Barge Way	186	47	4	1122	0.166	186	259	0.2	0.2	3.847	A
3 - Access Road (N)	36	9	171	1334	0.027	36	20	0.0	0.0	2.773	A
4 - Private Road	120	30	76	1189	0.101	120	131	0.1	0.1	3.366	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	87	22	128	1011	0.086	87	32	0.1	0.1	3.898	A
2 - Barge Way	152	38	4	1122	0.135	152	211	0.2	0.2	3.711	A
3 - Access Road (N)	30	7	139	1359	0.022	30	16	0.0	0.0	2.709	A
4 - Private Road	98	24	62	1199	0.082	98	107	0.1	0.1	3.268	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	73	18	107	1021	0.072	73	27	0.1	0.1	3.797	A
2 - Barge Way	127	32	3	1122	0.113	127	177	0.2	0.1	3.620	A
3 - Access Road (N)	25	6	117	1377	0.018	25	14	0.0	0.0	2.663	A
4 - Private Road	82	21	52	1207	0.068	82	90	0.1	0.1	3.203	A

# Junctions 9

## ARCADY 9 - Roundabout Module

Version: 9.0.2.5947  
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**Filename:** Barge Way\_Site Access\_Sensitivity.j9

**Path:** P:\JNY9290 - Kemsley K5\Transport\Arcady\WKN DCO\Barge Way\_Site Access

**Report generation date:** 18/03/2019 14:07:59

»2017, AM  
 »2017, PM  
 »2024, AM  
 »2024, PM  
 »2024 + Cumulative Development, AM  
 »2024 + Cumulative Development, PM  
 »2024 + K3 Operational, AM  
 »2024 + K3 Operational, PM  
 »2024 + WKN Operational, AM  
 »2024 + WKN Operational, PM  
 »2024 + K3 and WKN Operational, AM  
 »2024 + K3 and WKN Operational, PM  
 »2024 + K3 Operational + Cumulative Development, AM  
 »2024 + K3 Operational + Cumulative Development, PM  
 »2024 + WKN Operational + Cumulative Development, AM  
 »2024 + WKN Operational + Cumulative Development, PM  
 »2024 + K3 and WKN Operational + Cumulative Development, AM  
 »2024 + K3 and WKN Operational + Cumulative Development, PM  
 »2031, AM  
 »2031, PM  
 »2031 + Cumulative , AM  
 »2031 + Cumulative, PM  
 »2031 + K3 Operational, AM  
 »2031 + K3 Operational, PM  
 »2031 + WKN Operational, AM  
 »2031 + WKN Operational, PM  
 »2031 + K3 and WKN Operational, AM  
 »2031 + K3 and WKN Operational, PM  
 »2031 + K3 Operational + Cumulative Development, AM  
 »2031 + K3 Operational + Cumulative Development, PM  
 »2031 + WKN Operational + Cumulative Development, AM  
 »2031 + WKN Operational + Cumulative Development, PM  
 »2031 + K3 and WKN Operational + Cumulative Development, AM  
 »2031 + K3 and WKN Operational + Cumulative Development, PM

### Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
<b>2017</b>						
1 - Access (S)	0.0	4.82	0.04	0.1	3.61	0.05
2 - Barge Way	0.2	3.74	0.13	0.1	3.40	0.10
3 - Access Road (N)	0.0	0.00	0.00	0.0	0.00	0.00

4 - Private Road	0.1	4.82	0.09	0.1	3.10	0.09
<b>2024</b>						
1 - Access (S)	0.1	5.05	0.06	0.1	3.86	0.08
2 - Barge Way	0.3	3.91	0.21	0.2	3.62	0.15
3 - Access Road (N)	0.0	2.83	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.69	0.12	0.1	3.32	0.10
<b>2024 + Cumulative Development</b>						
1 - Access (S)	0.1	5.05	0.06	0.1	3.86	0.08
2 - Barge Way	0.3	3.91	0.21	0.2	3.62	0.15
3 - Access Road (N)	0.0	2.83	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.69	0.12	0.1	3.32	0.10
<b>2024 + K3 Operational</b>						
1 - Access (S)	0.1	5.07	0.07	0.1	3.90	0.08
2 - Barge Way	0.3	3.97	0.21	0.2	3.66	0.15
3 - Access Road (N)	0.0	2.83	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.70	0.12	0.1	3.33	0.10
<b>2024 + WKN Operational</b>						
1 - Access (S)	0.1	5.14	0.08	0.1	3.97	0.10
2 - Barge Way	0.3	4.08	0.22	0.2	3.80	0.16
3 - Access Road (N)	0.0	2.85	0.02	0.0	2.76	0.03
4 - Private Road	0.1	4.74	0.12	0.1	3.36	0.10
<b>2024 + K3 and WKN Operational</b>						
1 - Access (S)	0.1	5.16	0.08	0.1	4.04	0.11
2 - Barge Way	0.3	4.13	0.22	0.2	3.85	0.17
3 - Access Road (N)	0.0	2.86	0.02	0.0	2.77	0.03
4 - Private Road	0.1	4.75	0.12	0.1	3.37	0.10
<b>2024 + K3 Operational + Cumulative Development</b>						
1 - Access (S)	0.1	5.07	0.07	0.1	3.90	0.08
2 - Barge Way	0.3	3.97	0.21	0.2	3.66	0.15
3 - Access Road (N)	0.0	2.83	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.70	0.12	0.1	3.33	0.10
<b>2024 + WKN Operational + Cumulative Development</b>						
1 - Access (S)	0.1	5.14	0.08	0.1	3.97	0.10
2 - Barge Way	0.3	4.08	0.22	0.2	3.80	0.16
3 - Access Road (N)	0.0	2.85	0.02	0.0	2.76	0.03
4 - Private Road	0.1	4.74	0.12	0.1	3.36	0.10
<b>2024 + K3 and WKN Operational + Cumulative Development</b>						
1 - Access (S)	0.1	5.16	0.08	0.1	4.04	0.11
2 - Barge Way	0.3	4.13	0.22	0.2	3.85	0.17
3 - Access Road (N)	0.0	2.86	0.02	0.0	2.77	0.03
4 - Private Road	0.1	4.75	0.12	0.1	3.37	0.10
<b>2031</b>						
1 - Access (S)	0.1	5.05	0.06	0.1	3.86	0.08
2 - Barge Way	0.3	3.91	0.21	0.2	3.62	0.15
3 - Access Road (N)	0.0	2.83	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.69	0.12	0.1	3.32	0.10
<b>2031 + Cumulative</b>						
1 - Access (S)	0.1	5.05	0.06	0.1	3.86	0.08
2 - Barge Way	0.3	3.91	0.21	0.2	3.62	0.15
3 - Access Road (N)	0.0	2.83	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.69	0.12	0.1	3.32	0.10
<b>2031 + K3 Operational</b>						
1 - Access (S)	0.1	5.07	0.07	0.1	3.90	0.08
2 - Barge Way	0.3	3.97	0.21	0.2	3.66	0.15
3 - Access Road (N)	0.0	2.83	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.70	0.12	0.1	3.33	0.10
<b>2031 + WKN Operational</b>						
1 - Access (S)	0.1	5.14	0.08	0.1	3.97	0.10
2 - Barge Way	0.3	4.08	0.22	0.2	3.80	0.16
3 - Access Road (N)	0.0	2.85	0.02	0.0	2.76	0.03

	0.0	2.85	0.02	0.0	2.76	0.03
4 - Private Road	0.1	4.74	0.12	0.1	3.36	0.10
<b>2031 + K3 and WKN Operational</b>						
1 - Access (S)	0.1	5.16	0.08	0.1	4.04	0.11
2 - Barge Way	0.3	4.13	0.22	0.2	3.85	0.17
3 - Access Road (N)	0.0	2.86	0.02	0.0	2.77	0.03
4 - Private Road	0.1	4.75	0.12	0.1	3.37	0.10
<b>2031 + K3 Operational + Cumulative Development</b>						
1 - Access (S)	0.1	5.07	0.07	0.1	3.90	0.08
2 - Barge Way	0.3	3.97	0.21	0.2	3.66	0.15
3 - Access Road (N)	0.0	2.83	0.02	0.0	2.74	0.03
4 - Private Road	0.1	4.70	0.12	0.1	3.33	0.10
<b>2031 + WKN Operational + Cumulative Development</b>						
1 - Access (S)	0.1	5.14	0.08	0.1	3.97	0.10
2 - Barge Way	0.3	4.08	0.22	0.2	3.80	0.16
3 - Access Road (N)	0.0	2.85	0.02	0.0	2.76	0.03
4 - Private Road	0.1	4.74	0.12	0.1	3.36	0.10
<b>2031 + K3 and WKN Operational + Cumulative Development</b>						
1 - Access (S)	0.1	5.16	0.08	0.1	4.04	0.11
2 - Barge Way	0.3	4.13	0.22	0.2	3.85	0.17
3 - Access Road (N)	0.0	2.86	0.02	0.0	2.77	0.03
4 - Private Road	0.1	4.75	0.12	0.1	3.37	0.10

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

## File summary

### File Description

Title	(untitled)
Location	
Site number	
Date	08/11/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR\jack.clarke-williams
Description	

## Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

## Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

## Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓
D4	2024	PM	ONE	16:15	17:45	15	✓



			HOUR				
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D9	2024 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D10	2024 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D15	2024 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D16	2024 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓
D21	2031 + Cumulative	AM	ONE HOUR	07:15	08:45	15	✓
D22	2031 + Cumulative	PM	ONE HOUR	16:15	17:45	15	✓
D23	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D24	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D25	2031 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D26	2031 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D27	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D28	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D29	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D30	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D31	2031 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D32	2031 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D33	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D34	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

### Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

# 2017, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.28	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Name	Description
1	Access (S)	
2	Barge Way	
3	Access Road (N)	
4	Private Road	

### Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Access (S)	3.75	6.00	16.5	13.5	48.0	26.0	
2 - Barge Way	3.75	7.00	8.5	18.5	47.5	33.0	
3 - Access Road (N)	3.75	6.50	12.5	11.5	43.0	47.0	
4 - Private Road	3.60	6.50	8.0	13.5	45.0	18.0	

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Access (S)	0.594	1595
2 - Barge Way	0.587	1556
3 - Access Road (N)	0.560	1471
4 - Private Road	0.599	1525

The slope and intercept shown above include any corrections and adjustments.

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

## Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	31	100.000
2 - Barge Way		ONE HOUR	✓	136	100.000
3 - Access Road (N)		ONE HOUR	✓	0	100.000
4 - Private Road		ONE HOUR	✓	71	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	9	0	22
	2 - Barge Way	32	2	0	102
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	21	49	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	89	0	100
	2 - Barge Way	47	50	0	34
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	78	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.04	4.82	0.0	A	28	43
2 - Barge Way	0.13	3.74	0.2	A	125	187
3 - Access Road (N)	0.00	0.00	0.0	A	0	0
4 - Private Road	0.09	4.82	0.1	A	65	98

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	23	6	39	790	0.030	23	40	0.0	0.0	4.695	A
2 - Barge Way	102	26	17	1119	0.091	102	45	0.0	0.1	3.536	A
3 - Access Road (N)	0	0	119	1373	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	53	13	25	831	0.064	53	94	0.0	0.1	4.626	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	28	7	47	786	0.035	28	48	0.0	0.0	4.748	A
2 - Barge Way	122	31	21	1116	0.110	122	54	0.1	0.1	3.620	A
3 - Access Road (N)	0	0	143	1354	0.000	0	0	0.0	0.0	0.000	A

4 - Private Road	64	16	31	829	0.077	64	112	0.1	0.1	4.706	A
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## 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	34	9	57	780	0.044	34	58	0.0	0.0	4.824	A
2 - Barge Way	150	37	25	1112	0.135	150	66	0.1	0.2	3.738	A
3 - Access Road (N)	0	0	175	1328	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	78	20	37	825	0.095	78	138	0.1	0.1	4.817	A

## 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	34	9	57	780	0.044	34	58	0.0	0.0	4.824	A
2 - Barge Way	150	37	25	1112	0.135	150	66	0.2	0.2	3.738	A
3 - Access Road (N)	0	0	175	1328	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	78	20	37	825	0.095	78	138	0.1	0.1	4.817	A

## 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	28	7	47	786	0.035	28	48	0.0	0.0	4.749	A
2 - Barge Way	122	31	21	1116	0.110	122	54	0.2	0.1	3.621	A
3 - Access Road (N)	0	0	143	1354	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	64	16	31	829	0.077	64	112	0.1	0.1	4.709	A

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	23	6	39	790	0.030	23	40	0.0	0.0	4.696	A
2 - Barge Way	102	26	17	1119	0.091	102	45	0.1	0.1	3.540	A
3 - Access Road (N)	0	0	120	1373	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	53	13	26	831	0.064	54	94	0.1	0.1	4.629	A

# 2017, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.33	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	48	100.000
2 - Barge Way		ONE HOUR	✓	107	100.000
3 - Access Road (N)		ONE HOUR	✓	0	100.000
4 - Private Road		ONE HOUR	✓	103	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	44	0	4
	2 - Barge Way	8	2	0	97
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	2	101	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	46	0	25
	2 - Barge Way	88	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	18	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.05	3.61	0.1	A	44	66
2 - Barge Way	0.10	3.40	0.1	A	98	147
3 - Access Road (N)	0.00	0.00	0.0	A	0	0
4 - Private Road	0.09	3.10	0.1	A	95	142

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	36	9	77	1068	0.034	36	8	0.0	0.0	3.487	A
2 - Barge Way	81	20	3	1178	0.068	80	110	0.0	0.1	3.280	A
3 - Access Road (N)	0	0	83	1409	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	78	19	8	1279	0.061	77	76	0.0	0.1	2.996	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	93	1061	0.041	43	9	0.0	0.0	3.536	A
2 - Barge Way	96	24	4	1177	0.082	96	132	0.1	0.1	3.329	A
3 - Access Road (N)	0	0	100	1397	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	93	23	9	1277	0.073	93	91	0.1	0.1	3.038	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	53	13	113	1051	0.050	53	11	0.0	0.1	3.607	A
2 - Barge Way	118	29	4	1177	0.100	118	162	0.1	0.1	3.398	A
3 - Access Road (N)	0	0	122	1380	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	113	28	11	1275	0.089	113	111	0.1	0.1	3.097	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	53	13	113	1051	0.050	53	11	0.1	0.1	3.607	A
2 - Barge Way	118	29	4	1177	0.100	118	162	0.1	0.1	3.398	A
3 - Access Road (N)	0	0	122	1380	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	113	28	11	1275	0.089	113	111	0.1	0.1	3.097	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	93	1061	0.041	43	9	0.1	0.0	3.540	A
2 - Barge Way	96	24	4	1177	0.082	96	132	0.1	0.1	3.332	A
3 - Access Road (N)	0	0	100	1397	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	93	23	9	1277	0.073	93	91	0.1	0.1	3.041	A

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	93	1061	0.041	43	9	0.1	0.0	3.540	A
2 - Barge Way	96	24	4	1177	0.082	96	132	0.1	0.1	3.332	A
3 - Access Road (N)	0	0	100	1397	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	93	23	9	1277	0.073	93	91	0.1	0.1	3.041	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	36	9	78	1068	0.034	36	8	0.0	0.0	3.490	A
2 - Barge Way	81	20	3	1178	0.068	81	111	0.1	0.1	3.281	A
3 - Access Road (N)	0	0	84	1409	0.000	0	0	0.0	0.0	0.000	A
4 - Private Road	78	19	8	1278	0.061	78	76	0.1	0.1	2.999	A

# 2024, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.27	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	44	100.000
2 - Barge Way		ONE HOUR	✓	216	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	22	0	22
	2 - Barge Way	57	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	96	0	100
	2 - Barge Way	49	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0



## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.06	5.05	0.1	A	40	61
2 - Barge Way	0.21	3.91	0.3	A	198	297
3 - Access Road (N)	0.02	2.83	0.0	A	18	28
4 - Private Road	0.12	4.69	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	33	8	70	775	0.043	33	58	0.0	0.0	4.850	A
2 - Barge Way	163	41	17	1165	0.140	162	85	0.0	0.2	3.587	A
3 - Access Road (N)	15	4	145	1351	0.011	15	34	0.0	0.0	2.693	A
4 - Private Road	69	17	59	883	0.078	69	100	0.0	0.1	4.420	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	40	10	84	769	0.051	40	70	0.0	0.1	4.935	A
2 - Barge Way	194	49	21	1162	0.167	194	102	0.2	0.2	3.718	A
3 - Access Road (N)	18	4	173	1328	0.014	18	41	0.0	0.0	2.748	A
4 - Private Road	83	21	71	877	0.094	83	120	0.1	0.1	4.530	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	102	761	0.064	48	86	0.1	0.1	5.054	A
2 - Barge Way	238	59	25	1158	0.205	238	125	0.2	0.3	3.910	A
3 - Access Road (N)	22	6	212	1296	0.017	22	51	0.0	0.0	2.825	A
4 - Private Road	101	25	87	869	0.117	101	147	0.1	0.1	4.686	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	102	761	0.064	48	86	0.1	0.1	5.054	A
2 - Barge Way	238	59	25	1158	0.205	238	126	0.3	0.3	3.911	A
3 - Access Road (N)	22	6	212	1295	0.017	22	51	0.0	0.0	2.826	A
4 - Private Road	101	25	87	869	0.117	101	148	0.1	0.1	4.686	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	40	10	84	769	0.051	40	70	0.1	0.1	4.938	A
2 - Barge Way	194	49	21	1162	0.167	194	103	0.3	0.2	3.723	A
3 - Access Road (N)	18	4	174	1327	0.014	18	41	0.0	0.0	2.750	A
4 - Private Road	83	21	71	877	0.094	83	121	0.1	0.1	4.532	A

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	40	10	84	769	0.051	40	70	0.1	0.1	4.938	A
2 - Barge Way	194	49	21	1162	0.167	194	103	0.3	0.2	3.723	A
3 - Access Road (N)	18	4	174	1327	0.014	18	41	0.0	0.0	2.750	A
4 - Private Road	83	21	71	877	0.094	83	121	0.1	0.1	4.532	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	33	8	70	775	0.043	33	59	0.1	0.0	4.853	A
2 - Barge Way	163	41	17	1165	0.140	163	86	0.2	0.2	3.591	A
3 - Access Road (N)	15	4	145	1351	0.011	15	35	0.0	0.0	2.696	A
4 - Private Road	69	17	60	883	0.078	69	101	0.1	0.1	4.427	A

# 2024, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.53	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	73	100.000
2 - Barge Way		ONE HOUR	✓	156	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	69	0	4
	2 - Barge Way	21	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	48	0	25
	2 - Barge Way	95	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	3.86	0.1	A	67	100
2 - Barge Way	0.15	3.62	0.2	A	143	215
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.32	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	55	14	107	1037	0.053	55	17	0.0	0.1	3.666	A
2 - Barge Way	117	29	3	1166	0.101	117	158	0.0	0.1	3.430	A
3 - Access Road (N)	25	6	106	1389	0.018	25	13	0.0	0.0	2.639	A
4 - Private Road	82	21	42	1216	0.067	82	89	0.0	0.1	3.173	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	66	16	128	1027	0.064	66	21	0.1	0.1	3.745	A
2 - Barge Way	140	35	4	1165	0.120	140	190	0.1	0.1	3.510	A
3 - Access Road (N)	30	7	128	1372	0.022	30	16	0.0	0.0	2.680	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.234	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	80	20	156	1013	0.079	80	25	0.1	0.1	3.859	A
2 - Barge Way	172	43	4	1165	0.147	172	232	0.1	0.2	3.623	A
3 - Access Road (N)	36	9	156	1350	0.027	36	20	0.0	0.0	2.738	A
4 - Private Road	120	30	62	1203	0.100	120	131	0.1	0.1	3.322	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	80	20	156	1013	0.079	80	25	0.1	0.1	3.860	A
2 - Barge Way	172	43	4	1165	0.147	172	232	0.2	0.2	3.623	A
3 - Access Road (N)	36	9	156	1350	0.027	36	20	0.0	0.0	2.739	A
4 - Private Road	120	30	62	1203	0.100	120	131	0.1	0.1	3.323	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	66	16	128	1027	0.064	66	21	0.1	0.1	3.749	A
2 - Barge Way	140	35	4	1165	0.120	140	190	0.2	0.1	3.514	A
3 - Access Road (N)	30	7	128	1372	0.022	30	16	0.0	0.0	2.680	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.237	A

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	66	16	128	1027	0.064	66	21	0.1	0.1	3.749	A
2 - Barge Way	140	35	4	1165	0.120	140	190	0.2	0.1	3.514	A
3 - Access Road (N)	30	7	128	1372	0.022	30	16	0.0	0.0	2.680	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.237	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	55	14	107	1036	0.053	55	17	0.1	0.1	3.670	A
2 - Barge Way	117	29	3	1166	0.101	118	159	0.1	0.1	3.436	A
3 - Access Road (N)	25	6	107	1388	0.018	25	14	0.0	0.0	2.641	A
4 - Private Road	82	21	42	1216	0.067	82	90	0.1	0.1	3.173	A

# 2024 + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.27	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	44	100.000
2 - Barge Way		ONE HOUR	✓	216	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	22	0	22
	2 - Barge Way	57	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	96	0	100
	2 - Barge Way	49	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.06	5.05	0.1	A	40	61
2 - Barge Way	0.21	3.91	0.3	A	198	297
3 - Access Road (N)	0.02	2.83	0.0	A	18	28
4 - Private Road	0.12	4.69	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	33	8	70	775	0.043	33	58	0.0	0.0	4.850	A
2 - Barge Way	163	41	17	1165	0.140	162	85	0.0	0.2	3.587	A
3 - Access Road (N)	15	4	145	1351	0.011	15	34	0.0	0.0	2.693	A
4 - Private Road	69	17	59	883	0.078	69	100	0.0	0.1	4.420	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	40	10	84	769	0.051	40	70	0.0	0.1	4.935	A
2 - Barge Way	194	49	21	1162	0.167	194	102	0.2	0.2	3.718	A
3 - Access Road (N)	18	4	173	1328	0.014	18	41	0.0	0.0	2.748	A
4 - Private Road	83	21	71	877	0.094	83	120	0.1	0.1	4.530	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	102	761	0.064	48	86	0.1	0.1	5.054	A
2 - Barge Way	238	59	25	1158	0.205	238	125	0.2	0.3	3.910	A
3 - Access Road (N)	22	6	212	1296	0.017	22	51	0.0	0.0	2.825	A
4 - Private Road	101	25	87	869	0.117	101	147	0.1	0.1	4.686	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	102	761	0.064	48	86	0.1	0.1	5.054	A
2 - Barge Way	238	59	25	1158	0.205	238	126	0.3	0.3	3.911	A
3 - Access Road (N)	22	6	212	1295	0.017	22	51	0.0	0.0	2.826	A
4 - Private Road	101	25	87	869	0.117	101	148	0.1	0.1	4.686	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	40	10	84	769	0.051	40	70	0.1	0.1	4.938	A
2 - Barge Way	194	49	21	1162	0.167	194	103	0.3	0.2	3.723	A
3 - Access Road (N)	18	4	174	1327	0.014	18	41	0.0	0.0	2.750	A
4 - Private Road	83	21	71	877	0.094	83	121	0.1	0.1	4.532	A

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	40	10	84	769	0.051	40	70	0.1	0.1	4.938	A
2 - Barge Way	194	49	21	1162	0.167	194	103	0.3	0.2	3.723	A
3 - Access Road (N)	18	4	174	1327	0.014	18	41	0.0	0.0	2.750	A
4 - Private Road	83	21	71	877	0.094	83	121	0.1	0.1	4.532	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	33	8	70	775	0.043	33	59	0.1	0.0	4.853	A
2 - Barge Way	163	41	17	1165	0.140	163	86	0.2	0.2	3.591	A
3 - Access Road (N)	15	4	145	1351	0.011	15	35	0.0	0.0	2.696	A
4 - Private Road	69	17	60	883	0.078	69	101	0.1	0.1	4.427	A



# 2024 + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.53	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	73	100.000
2 - Barge Way		ONE HOUR	✓	156	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	69	0	4
	2 - Barge Way	21	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	48	0	25
	2 - Barge Way	95	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	3.86	0.1	A	67	100
2 - Barge Way	0.15	3.62	0.2	A	143	215
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.32	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	55	14	107	1037	0.053	55	17	0.0	0.1	3.666	A
2 - Barge Way	117	29	3	1166	0.101	117	158	0.0	0.1	3.430	A
3 - Access Road (N)	25	6	106	1389	0.018	25	13	0.0	0.0	2.639	A
4 - Private Road	82	21	42	1216	0.067	82	89	0.0	0.1	3.173	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	66	16	128	1027	0.064	66	21	0.1	0.1	3.745	A
2 - Barge Way	140	35	4	1165	0.120	140	190	0.1	0.1	3.510	A
3 - Access Road (N)	30	7	128	1372	0.022	30	16	0.0	0.0	2.680	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.234	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	80	20	156	1013	0.079	80	25	0.1	0.1	3.859	A
2 - Barge Way	172	43	4	1165	0.147	172	232	0.1	0.2	3.623	A
3 - Access Road (N)	36	9	156	1350	0.027	36	20	0.0	0.0	2.738	A
4 - Private Road	120	30	62	1203	0.100	120	131	0.1	0.1	3.322	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	80	20	156	1013	0.079	80	25	0.1	0.1	3.860	A
2 - Barge Way	172	43	4	1165	0.147	172	232	0.2	0.2	3.623	A
3 - Access Road (N)	36	9	156	1350	0.027	36	20	0.0	0.0	2.739	A
4 - Private Road	120	30	62	1203	0.100	120	131	0.1	0.1	3.323	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	66	16	128	1027	0.064	66	21	0.1	0.1	3.749	A
2 - Barge Way	140	35	4	1165	0.120	140	190	0.2	0.1	3.514	A
3 - Access Road (N)	30	7	128	1372	0.022	30	16	0.0	0.0	2.680	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.237	A

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	66	16	128	1027	0.064	66	21	0.1	0.1	3.749	A
2 - Barge Way	140	35	4	1165	0.120	140	190	0.2	0.1	3.514	A
3 - Access Road (N)	30	7	128	1372	0.022	30	16	0.0	0.0	2.680	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.237	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	55	14	107	1036	0.053	55	17	0.1	0.1	3.670	A
2 - Barge Way	117	29	3	1166	0.101	118	159	0.1	0.1	3.436	A
3 - Access Road (N)	25	6	107	1388	0.018	25	14	0.0	0.0	2.641	A
4 - Private Road	82	21	42	1216	0.067	82	90	0.1	0.1	3.173	A

# 2024 + K3 Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.31	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	46	100.000
2 - Barge Way		ONE HOUR	✓	219	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	24	0	22
	2 - Barge Way	60	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	96	0	100
	2 - Barge Way	52	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.07	5.07	0.1	A	42	63
2 - Barge Way	0.21	3.97	0.3	A	201	301
3 - Access Road (N)	0.02	2.83	0.0	A	18	28
4 - Private Road	0.12	4.70	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.045	34	61	0.0	0.0	4.857	A
2 - Barge Way	165	41	17	1156	0.143	164	87	0.0	0.2	3.629	A
3 - Access Road (N)	15	4	147	1349	0.011	15	34	0.0	0.0	2.698	A
4 - Private Road	69	17	62	881	0.079	69	100	0.0	0.1	4.429	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	41	10	84	769	0.054	41	73	0.0	0.1	4.945	A
2 - Barge Way	197	49	21	1153	0.171	197	104	0.2	0.2	3.764	A
3 - Access Road (N)	18	4	176	1325	0.014	18	41	0.0	0.0	2.754	A
4 - Private Road	83	21	74	875	0.095	83	120	0.1	0.1	4.542	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	102	761	0.067	51	89	0.1	0.1	5.067	A
2 - Barge Way	241	60	25	1149	0.210	241	128	0.2	0.3	3.964	A
3 - Access Road (N)	22	6	216	1292	0.017	22	51	0.0	0.0	2.834	A
4 - Private Road	101	25	90	867	0.117	101	147	0.1	0.1	4.701	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	102	761	0.067	51	89	0.1	0.1	5.068	A
2 - Barge Way	241	60	25	1149	0.210	241	128	0.3	0.3	3.965	A
3 - Access Road (N)	22	6	216	1292	0.017	22	51	0.0	0.0	2.834	A
4 - Private Road	101	25	90	867	0.117	101	148	0.1	0.1	4.701	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	41	10	84	769	0.054	41	73	0.1	0.1	4.948	A
2 - Barge Way	197	49	21	1153	0.171	197	104	0.3	0.2	3.766	A
3 - Access Road (N)	18	4	176	1324	0.014	18	41	0.0	0.0	2.757	A
4 - Private Road	83	21	74	875	0.095	83	121	0.1	0.1	4.545	A

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	41	10	84	769	0.054	41	73	0.1	0.1	4.948	A
2 - Barge Way	197	49	21	1153	0.171	197	104	0.3	0.2	3.766	A
3 - Access Road (N)	18	4	176	1324	0.014	18	41	0.0	0.0	2.757	A
4 - Private Road	83	21	74	875	0.095	83	121	0.1	0.1	4.545	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.045	35	61	0.1	0.0	4.861	A
2 - Barge Way	165	41	17	1156	0.143	165	87	0.2	0.2	3.633	A
3 - Access Road (N)	15	4	148	1348	0.011	15	35	0.0	0.0	2.702	A
4 - Private Road	69	17	62	881	0.079	69	101	0.1	0.1	4.434	A

# 2024 + K3 Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.56	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	75	100.000
2 - Barge Way		ONE HOUR	✓	158	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	71	0	4
	2 - Barge Way	23	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	49	0	25
	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	3.90	0.1	A	69	103
2 - Barge Way	0.15	3.66	0.2	A	145	217
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.33	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	56	19	0.0	0.1	3.697	A
2 - Barge Way	119	30	3	1158	0.103	118	160	0.0	0.1	3.462	A
3 - Access Road (N)	25	6	108	1387	0.018	25	13	0.0	0.0	2.642	A
4 - Private Road	82	21	44	1215	0.068	82	89	0.0	0.1	3.177	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	191	0.1	0.1	3.544	A
3 - Access Road (N)	30	7	129	1370	0.022	30	16	0.0	0.0	2.684	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.239	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	234	0.1	0.2	3.661	A
3 - Access Road (N)	36	9	158	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	235	0.2	0.2	3.661	A
3 - Access Road (N)	36	9	159	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	192	0.2	0.1	3.548	A
3 - Access Road (N)	30	7	130	1370	0.022	30	16	0.0	0.0	2.687	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.243	A

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	235	0.2	0.2	3.661	A
3 - Access Road (N)	36	9	159	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A



Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	57	19	0.1	0.1	3.702	A
2 - Barge Way	119	30	3	1158	0.103	119	160	0.1	0.1	3.465	A
3 - Access Road (N)	25	6	109	1387	0.018	25	14	0.0	0.0	2.643	A
4 - Private Road	82	21	44	1215	0.068	82	90	0.1	0.1	3.180	A

# 2024 + WKN Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.40	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2024 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	54	100.000
2 - Barge Way		ONE HOUR	✓	226	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	32	0	22
	2 - Barge Way	67	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	97	0	100
	2 - Barge Way	57	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	5.14	0.1	A	50	74
2 - Barge Way	0.22	4.08	0.3	A	207	311
3 - Access Road (N)	0.02	2.85	0.0	A	18	28
4 - Private Road	0.12	4.74	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	41	10	70	774	0.053	40	66	0.0	0.1	4.905	A
2 - Barge Way	170	43	17	1138	0.150	169	93	0.0	0.2	3.715	A
3 - Access Road (N)	15	4	152	1343	0.011	15	34	0.0	0.0	2.710	A
4 - Private Road	69	17	67	878	0.079	69	100	0.0	0.1	4.450	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	49	12	84	768	0.063	48	79	0.1	0.1	5.003	A
2 - Barge Way	203	51	21	1135	0.179	203	111	0.2	0.2	3.862	A
3 - Access Road (N)	18	4	182	1318	0.014	18	41	0.0	0.0	2.769	A
4 - Private Road	83	21	80	871	0.095	83	120	0.1	0.1	4.567	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	59	15	102	760	0.078	59	97	0.1	0.1	5.140	A
2 - Barge Way	249	62	25	1131	0.220	249	136	0.2	0.3	4.078	A
3 - Access Road (N)	22	6	223	1283	0.017	22	51	0.0	0.0	2.853	A
4 - Private Road	101	25	98	861	0.118	101	147	0.1	0.1	4.735	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	59	15	102	760	0.078	59	97	0.1	0.1	5.140	A
2 - Barge Way	249	62	25	1131	0.220	249	137	0.3	0.3	4.079	A
3 - Access Road (N)	22	6	224	1283	0.017	22	51	0.0	0.0	2.854	A
4 - Private Road	101	25	98	861	0.118	101	148	0.1	0.1	4.735	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	49	12	84	768	0.063	49	79	0.1	0.1	5.004	A
2 - Barge Way	203	51	21	1135	0.179	203	112	0.3	0.2	3.866	A
3 - Access Road (N)	18	4	183	1317	0.014	18	41	0.0	0.0	2.772	A
4 - Private Road	83	21	80	871	0.095	83	121	0.1	0.1	4.571	A

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)											
2 - Barge Way											
3 - Access Road (N)											
4 - Private Road											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	41	10	70	774	0.053	41	66	0.1	0.1	4.909	A
2 - Barge Way	170	43	17	1138	0.150	170	93	0.2	0.2	3.722	A
3 - Access Road (N)	15	4	153	1342	0.011	15	35	0.0	0.0	2.714	A
4 - Private Road	69	17	67	877	0.079	69	101	0.1	0.1	4.455	A

# 2024 + WKN Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.67	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2024 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	94	100.000
2 - Barge Way		ONE HOUR	✓	166	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	90	0	4
	2 - Barge Way	31	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	48	0	25
	2 - Barge Way	97	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.10	3.97	0.1	A	86	129
2 - Barge Way	0.16	3.80	0.2	A	152	228
3 - Access Road (N)	0.03	2.76	0.0	A	30	45
4 - Private Road	0.10	3.36	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	71	18	107	1035	0.068	70	25	0.0	0.1	3.734	A
2 - Barge Way	125	31	3	1131	0.111	124	174	0.0	0.1	3.574	A
3 - Access Road (N)	25	6	114	1380	0.018	25	13	0.0	0.0	2.655	A
4 - Private Road	82	21	50	1209	0.068	82	89	0.0	0.1	3.193	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	85	21	128	1025	0.082	84	30	0.1	0.1	3.828	A
2 - Barge Way	149	37	4	1131	0.132	149	208	0.1	0.2	3.667	A
3 - Access Road (N)	30	7	137	1362	0.022	30	16	0.0	0.0	2.700	A
4 - Private Road	98	24	59	1202	0.082	98	107	0.1	0.1	3.260	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	103	26	156	1011	0.102	103	36	0.1	0.1	3.966	A
2 - Barge Way	183	46	4	1130	0.162	183	255	0.2	0.2	3.798	A
3 - Access Road (N)	36	9	167	1338	0.027	36	20	0.0	0.0	2.765	A
4 - Private Road	120	30	73	1192	0.101	120	131	0.1	0.1	3.356	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	103	26	156	1011	0.102	103	36	0.1	0.1	3.966	A
2 - Barge Way	183	46	4	1130	0.162	183	255	0.2	0.2	3.798	A
3 - Access Road (N)	36	9	167	1338	0.027	36	20	0.0	0.0	2.765	A
4 - Private Road	120	30	73	1192	0.101	120	131	0.1	0.1	3.356	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	85	21	128	1025	0.082	85	30	0.1	0.1	3.829	A
2 - Barge Way	149	37	4	1131	0.132	149	209	0.2	0.2	3.668	A
3 - Access Road (N)	30	7	137	1362	0.022	30	16	0.0	0.0	2.701	A
4 - Private Road	98	24	59	1202	0.082	98	107	0.1	0.1	3.263	A

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)											
2 - Barge Way											
3 - Access Road (N)											
4 - Private Road											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	71	18	107	1034	0.068	71	25	0.1	0.1	3.738	A
<b>2 - Barge Way</b>	125	31	3	1131	0.111	125	175	0.2	0.1	3.578	A
<b>3 - Access Road (N)</b>	25	6	115	1380	0.018	25	14	0.0	0.0	2.658	A
<b>4 - Private Road</b>	82	21	50	1209	0.068	82	90	0.1	0.1	3.197	A

# 2024 + K3 and WKN Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.44	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	57	100.000
2 - Barge Way		ONE HOUR	✓	229	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	35	0	22
	2 - Barge Way	70	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	97	0	100
	2 - Barge Way	59	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0



## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	5.16	0.1	A	52	78
2 - Barge Way	0.22	4.13	0.3	A	210	315
3 - Access Road (N)	0.02	2.86	0.0	A	18	28
4 - Private Road	0.12	4.75	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	70	774	0.055	43	68	0.0	0.1	4.919	A
2 - Barge Way	172	43	17	1131	0.153	172	95	0.0	0.2	3.753	A
3 - Access Road (N)	15	4	154	1340	0.011	15	34	0.0	0.0	2.715	A
4 - Private Road	69	17	69	876	0.079	69	100	0.0	0.1	4.459	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	84	768	0.067	51	82	0.1	0.1	5.020	A
2 - Barge Way	206	51	21	1128	0.183	206	114	0.2	0.2	3.905	A
3 - Access Road (N)	18	4	185	1314	0.014	18	41	0.0	0.0	2.776	A
4 - Private Road	83	21	83	869	0.095	83	120	0.1	0.1	4.579	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	63	16	102	760	0.083	63	100	0.1	0.1	5.162	A
2 - Barge Way	252	63	25	1124	0.224	252	140	0.2	0.3	4.128	A
3 - Access Road (N)	22	6	227	1279	0.017	22	51	0.0	0.0	2.862	A
4 - Private Road	101	25	101	859	0.118	101	147	0.1	0.1	4.750	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	63	16	102	760	0.083	63	100	0.1	0.1	5.163	A
2 - Barge Way	252	63	25	1124	0.224	252	140	0.3	0.3	4.130	A
3 - Access Road (N)	22	6	227	1279	0.017	22	51	0.0	0.0	2.862	A
4 - Private Road	101	25	101	859	0.118	101	148	0.1	0.1	4.750	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	84	768	0.067	51	82	0.1	0.1	5.021	A
2 - Barge Way	206	51	21	1128	0.183	206	114	0.3	0.2	3.907	A
3 - Access Road (N)	18	4	185	1314	0.014	18	41	0.0	0.0	2.779	A
4 - Private Road	83	21	83	869	0.095	83	121	0.1	0.1	4.581	A

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	84	768	0.067	51	82	0.1	0.1	5.021	A
2 - Barge Way	206	51	21	1128	0.183	206	114	0.3	0.2	3.907	A
3 - Access Road (N)	18	4	185	1314	0.014	18	41	0.0	0.0	2.779	A
4 - Private Road	83	21	83	869	0.095	83	121	0.1	0.1	4.581	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	70	774	0.055	43	69	0.1	0.1	4.925	A
2 - Barge Way	172	43	17	1130	0.153	173	96	0.2	0.2	3.758	A
3 - Access Road (N)	15	4	155	1340	0.011	15	35	0.0	0.0	2.717	A
4 - Private Road	69	17	69	876	0.079	69	101	0.1	0.1	4.466	A

# 2024 + K3 and WKN Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.72	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	97	100.000
2 - Barge Way		ONE HOUR	✓	169	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	93	0	4
	2 - Barge Way	34	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	50	0	25
	2 - Barge Way	97	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.11	4.04	0.1	A	89	134
2 - Barge Way	0.17	3.85	0.2	A	155	233
3 - Access Road (N)	0.03	2.77	0.0	A	30	45
4 - Private Road	0.10	3.37	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	73	18	107	1021	0.072	73	27	0.0	0.1	3.796	A
2 - Barge Way	127	32	3	1122	0.113	127	176	0.0	0.1	3.613	A
3 - Access Road (N)	25	6	116	1378	0.018	25	13	0.0	0.0	2.660	A
4 - Private Road	82	21	52	1207	0.068	82	89	0.0	0.1	3.200	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	87	22	128	1011	0.086	87	32	0.1	0.1	3.895	A
2 - Barge Way	152	38	4	1122	0.135	152	211	0.1	0.2	3.709	A
3 - Access Road (N)	30	7	139	1359	0.022	30	16	0.0	0.0	2.706	A
4 - Private Road	98	24	62	1199	0.082	98	107	0.1	0.1	3.268	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	107	27	156	998	0.107	107	40	0.1	0.1	4.039	A
2 - Barge Way	186	47	4	1122	0.166	186	259	0.2	0.2	3.847	A
3 - Access Road (N)	36	9	171	1334	0.027	36	20	0.0	0.0	2.772	A
4 - Private Road	120	30	76	1189	0.101	120	131	0.1	0.1	3.366	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	107	27	156	998	0.107	107	40	0.1	0.1	4.040	A
2 - Barge Way	186	47	4	1122	0.166	186	259	0.2	0.2	3.847	A
3 - Access Road (N)	36	9	171	1334	0.027	36	20	0.0	0.0	2.773	A
4 - Private Road	120	30	76	1189	0.101	120	131	0.1	0.1	3.366	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	87	22	128	1011	0.086	87	32	0.1	0.1	3.898	A
2 - Barge Way	152	38	4	1122	0.135	152	211	0.2	0.2	3.711	A
3 - Access Road (N)	30	7	139	1359	0.022	30	16	0.0	0.0	2.709	A
4 - Private Road	98	24	62	1199	0.082	98	107	0.1	0.1	3.268	A

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	87	22	128	1011	0.086	87	32	0.1	0.1	3.898	A
2 - Barge Way	152	38	4	1122	0.135	152	211	0.2	0.2	3.711	A
3 - Access Road (N)	30	7	139	1359	0.022	30	16	0.0	0.0	2.709	A
4 - Private Road	98	24	62	1199	0.082	98	107	0.1	0.1	3.268	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	73	18	107	1021	0.072	73	27	0.1	0.1	3.797	A
<b>2 - Barge Way</b>	127	32	3	1122	0.113	127	177	0.2	0.1	3.620	A
<b>3 - Access Road (N)</b>	25	6	117	1377	0.018	25	14	0.0	0.0	2.663	A
<b>4 - Private Road</b>	82	21	52	1207	0.068	82	90	0.1	0.1	3.203	A

# 2024 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.31	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	46	100.000
2 - Barge Way		ONE HOUR	✓	219	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	24	0	22
	2 - Barge Way	60	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
1 - Access (S)		0	96	0	100

From	2 - Barge Way	52	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.07	5.07	0.1	A	42	63
2 - Barge Way	0.21	3.97	0.3	A	201	301
3 - Access Road (N)	0.02	2.83	0.0	A	18	28
4 - Private Road	0.12	4.70	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.045	34	61	0.0	0.0	4.857	A
2 - Barge Way	165	41	17	1156	0.143	164	87	0.0	0.2	3.629	A
3 - Access Road (N)	15	4	147	1349	0.011	15	34	0.0	0.0	2.698	A
4 - Private Road	69	17	62	881	0.079	69	100	0.0	0.1	4.429	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	41	10	84	769	0.054	41	73	0.0	0.1	4.945	A
2 - Barge Way	197	49	21	1153	0.171	197	104	0.2	0.2	3.764	A
3 - Access Road (N)	18	4	176	1325	0.014	18	41	0.0	0.0	2.754	A
4 - Private Road	83	21	74	875	0.095	83	120	0.1	0.1	4.542	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	102	761	0.067	51	89	0.1	0.1	5.067	A
2 - Barge Way	241	60	25	1149	0.210	241	128	0.2	0.3	3.964	A
3 - Access Road (N)	22	6	216	1292	0.017	22	51	0.0	0.0	2.834	A
4 - Private Road	101	25	90	867	0.117	101	147	0.1	0.1	4.701	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	102	761	0.067	51	89	0.1	0.1	5.068	A
2 - Barge Way	241	60	25	1149	0.210	241	128	0.3	0.3	3.965	A
3 - Access Road (N)	22	6	216	1292	0.017	22	51	0.0	0.0	2.834	A
4 - Private Road	101	25	90	867	0.117	101	148	0.1	0.1	4.701	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	41	10	84	769	0.054	41	73	0.1	0.1	4.948	A
2 - Barge Way	197	49	21	1153	0.171	197	104	0.3	0.2	3.766	A

<b>3 - Access Road (N)</b>	18	4	176	1324	0.014	18	41	0.0	0.0	2.757	A
<b>4 - Private Road</b>	83	21	74	875	0.095	83	121	0.1	0.1	4.545	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	35	9	70	775	0.045	35	61	0.1	0.0	4.861	A
<b>2 - Barge Way</b>	165	41	17	1156	0.143	165	87	0.2	0.2	3.633	A
<b>3 - Access Road (N)</b>	15	4	148	1348	0.011	15	35	0.0	0.0	2.702	A
<b>4 - Private Road</b>	69	17	62	881	0.079	69	101	0.1	0.1	4.434	A



# 2024 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.56	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	75	100.000
2 - Barge Way		ONE HOUR	✓	158	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	71	0	4
	2 - Barge Way	23	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
1 - Access (S)		0	49	0	25

From	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	3.90	0.1	A	69	103
2 - Barge Way	0.15	3.66	0.2	A	145	217
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.33	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	56	19	0.0	0.1	3.697	A
2 - Barge Way	119	30	3	1158	0.103	118	160	0.0	0.1	3.462	A
3 - Access Road (N)	25	6	108	1387	0.018	25	13	0.0	0.0	2.642	A
4 - Private Road	82	21	44	1215	0.068	82	89	0.0	0.1	3.177	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	191	0.1	0.1	3.544	A
3 - Access Road (N)	30	7	129	1370	0.022	30	16	0.0	0.0	2.684	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.239	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	234	0.1	0.2	3.661	A
3 - Access Road (N)	36	9	158	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	235	0.2	0.2	3.661	A
3 - Access Road (N)	36	9	159	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	192	0.2	0.1	3.548	A

<b>3 - Access Road (N)</b>	30	7	130	1370	0.022	30	16	0.0	0.0	2.687	A
<b>4 - Private Road</b>	98	24	52	1209	0.081	98	107	0.1	0.1	3.243	A

**17:30 - 17:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	56	14	107	1030	0.055	57	19	0.1	0.1	3.702	A
<b>2 - Barge Way</b>	119	30	3	1158	0.103	119	160	0.1	0.1	3.465	A
<b>3 - Access Road (N)</b>	25	6	109	1387	0.018	25	14	0.0	0.0	2.643	A
<b>4 - Private Road</b>	82	21	44	1215	0.068	82	90	0.1	0.1	3.180	A

# 2024 + WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.40	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2024 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	54	100.000
2 - Barge Way		ONE HOUR	✓	226	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	32	0	22
	2 - Barge Way	67	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
1 - Access (S)		0	97	0	100

From	2 - Barge Way	57	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	5.14	0.1	A	50	74
2 - Barge Way	0.22	4.08	0.3	A	207	311
3 - Access Road (N)	0.02	2.85	0.0	A	18	28
4 - Private Road	0.12	4.74	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	41	10	70	774	0.053	40	66	0.0	0.1	4.905	A
2 - Barge Way	170	43	17	1138	0.150	169	93	0.0	0.2	3.715	A
3 - Access Road (N)	15	4	152	1343	0.011	15	34	0.0	0.0	2.710	A
4 - Private Road	69	17	67	878	0.079	69	100	0.0	0.1	4.450	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	49	12	84	768	0.063	48	79	0.1	0.1	5.003	A
2 - Barge Way	203	51	21	1135	0.179	203	111	0.2	0.2	3.862	A
3 - Access Road (N)	18	4	182	1318	0.014	18	41	0.0	0.0	2.769	A
4 - Private Road	83	21	80	871	0.095	83	120	0.1	0.1	4.567	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	59	15	102	760	0.078	59	97	0.1	0.1	5.140	A
2 - Barge Way	249	62	25	1131	0.220	249	136	0.2	0.3	4.078	A
3 - Access Road (N)	22	6	223	1283	0.017	22	51	0.0	0.0	2.853	A
4 - Private Road	101	25	98	861	0.118	101	147	0.1	0.1	4.735	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	59	15	102	760	0.078	59	97	0.1	0.1	5.140	A
2 - Barge Way	249	62	25	1131	0.220	249	137	0.3	0.3	4.079	A
3 - Access Road (N)	22	6	224	1283	0.017	22	51	0.0	0.0	2.854	A
4 - Private Road	101	25	98	861	0.118	101	148	0.1	0.1	4.735	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	49	12	84	768	0.063	49	79	0.1	0.1	5.004	A
2 - Barge Way	203	51	21	1135	0.179	203	112	0.3	0.2	3.866	A

<b>3 - Access Road (N)</b>	18	4	183	1317	0.014	18	41	0.0	0.0	2.772	A
<b>4 - Private Road</b>	83	21	80	871	0.095	83	121	0.1	0.1	4.571	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	41	10	70	774	0.053	41	66	0.1	0.1	4.909	A
<b>2 - Barge Way</b>	170	43	17	1138	0.150	170	93	0.2	0.2	3.722	A
<b>3 - Access Road (N)</b>	15	4	153	1342	0.011	15	35	0.0	0.0	2.714	A
<b>4 - Private Road</b>	69	17	67	877	0.079	69	101	0.1	0.1	4.455	A

# 2024 + WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.67	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2024 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	94	100.000
2 - Barge Way		ONE HOUR	✓	166	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	90	0	4
	2 - Barge Way	31	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
1 - Access (S)		0	48	0	25

From	2 - Barge Way	97	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.10	3.97	0.1	A	86	129
2 - Barge Way	0.16	3.80	0.2	A	152	228
3 - Access Road (N)	0.03	2.76	0.0	A	30	45
4 - Private Road	0.10	3.36	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	71	18	107	1035	0.068	70	25	0.0	0.1	3.734	A
2 - Barge Way	125	31	3	1131	0.111	124	174	0.0	0.1	3.574	A
3 - Access Road (N)	25	6	114	1380	0.018	25	13	0.0	0.0	2.655	A
4 - Private Road	82	21	50	1209	0.068	82	89	0.0	0.1	3.193	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	85	21	128	1025	0.082	84	30	0.1	0.1	3.828	A
2 - Barge Way	149	37	4	1131	0.132	149	208	0.1	0.2	3.667	A
3 - Access Road (N)	30	7	137	1362	0.022	30	16	0.0	0.0	2.700	A
4 - Private Road	98	24	59	1202	0.082	98	107	0.1	0.1	3.260	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	103	26	156	1011	0.102	103	36	0.1	0.1	3.966	A
2 - Barge Way	183	46	4	1130	0.162	183	255	0.2	0.2	3.798	A
3 - Access Road (N)	36	9	167	1338	0.027	36	20	0.0	0.0	2.765	A
4 - Private Road	120	30	73	1192	0.101	120	131	0.1	0.1	3.356	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	103	26	156	1011	0.102	103	36	0.1	0.1	3.966	A
2 - Barge Way	183	46	4	1130	0.162	183	255	0.2	0.2	3.798	A
3 - Access Road (N)	36	9	167	1338	0.027	36	20	0.0	0.0	2.765	A
4 - Private Road	120	30	73	1192	0.101	120	131	0.1	0.1	3.356	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	85	21	128	1025	0.082	85	30	0.1	0.1	3.829	A
2 - Barge Way	149	37	4	1131	0.132	149	209	0.2	0.2	3.668	A



<b>3 - Access Road (N)</b>	30	7	137	1362	0.022	30	16	0.0	0.0	2.701	A
<b>4 - Private Road</b>	98	24	59	1202	0.082	98	107	0.1	0.1	3.263	A

**17:30 - 17:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	71	18	107	1034	0.068	71	25	0.1	0.1	3.738	A
<b>2 - Barge Way</b>	125	31	3	1131	0.111	125	175	0.2	0.1	3.578	A
<b>3 - Access Road (N)</b>	25	6	115	1380	0.018	25	14	0.0	0.0	2.658	A
<b>4 - Private Road</b>	82	21	50	1209	0.068	82	90	0.1	0.1	3.197	A

# 2024 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.44	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	57	100.000
2 - Barge Way		ONE HOUR	✓	229	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	35	0	22
	2 - Barge Way	70	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road

From	1 - Access (S)	0	97	0	100
	2 - Barge Way	59	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	5.16	0.1	A	52	78
2 - Barge Way	0.22	4.13	0.3	A	210	315
3 - Access Road (N)	0.02	2.86	0.0	A	18	28
4 - Private Road	0.12	4.75	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	70	774	0.055	43	68	0.0	0.1	4.919	A
2 - Barge Way	172	43	17	1131	0.153	172	95	0.0	0.2	3.753	A
3 - Access Road (N)	15	4	154	1340	0.011	15	34	0.0	0.0	2.715	A
4 - Private Road	69	17	69	876	0.079	69	100	0.0	0.1	4.459	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	84	768	0.067	51	82	0.1	0.1	5.020	A
2 - Barge Way	206	51	21	1128	0.183	206	114	0.2	0.2	3.905	A
3 - Access Road (N)	18	4	185	1314	0.014	18	41	0.0	0.0	2.776	A
4 - Private Road	83	21	83	869	0.095	83	120	0.1	0.1	4.579	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	63	16	102	760	0.083	63	100	0.1	0.1	5.162	A
2 - Barge Way	252	63	25	1124	0.224	252	140	0.2	0.3	4.128	A
3 - Access Road (N)	22	6	227	1279	0.017	22	51	0.0	0.0	2.862	A
4 - Private Road	101	25	101	859	0.118	101	147	0.1	0.1	4.750	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	63	16	102	760	0.083	63	100	0.1	0.1	5.163	A
2 - Barge Way	252	63	25	1124	0.224	252	140	0.3	0.3	4.130	A
3 - Access Road (N)	22	6	227	1279	0.017	22	51	0.0	0.0	2.862	A
4 - Private Road	101	25	101	859	0.118	101	148	0.1	0.1	4.750	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	84	768	0.067	51	82	0.1	0.1	5.021	A

<b>2 - Barge Way</b>	206	51	21	1128	0.183	206	114	0.3	0.2	3.907	A
<b>3 - Access Road (N)</b>	18	4	185	1314	0.014	18	41	0.0	0.0	2.779	A
<b>4 - Private Road</b>	83	21	83	869	0.095	83	121	0.1	0.1	4.581	A

**08:30 - 08:45**

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>1 - Access (S)</b>	43	11	70	774	0.055	43	69	0.1	0.1	4.925	A
<b>2 - Barge Way</b>	172	43	17	1130	0.153	173	96	0.2	0.2	3.758	A
<b>3 - Access Road (N)</b>	15	4	155	1340	0.011	15	35	0.0	0.0	2.717	A
<b>4 - Private Road</b>	69	17	69	876	0.079	69	101	0.1	0.1	4.466	A

# 2024 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.72	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	97	100.000
2 - Barge Way		ONE HOUR	✓	169	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	93	0	4
	2 - Barge Way	34	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road

From	1 - Access (S)	0	50	0	25
	2 - Barge Way	97	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.11	4.04	0.1	A	89	134
2 - Barge Way	0.17	3.85	0.2	A	155	233
3 - Access Road (N)	0.03	2.77	0.0	A	30	45
4 - Private Road	0.10	3.37	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	73	18	107	1021	0.072	73	27	0.0	0.1	3.796	A
2 - Barge Way	127	32	3	1122	0.113	127	176	0.0	0.1	3.613	A
3 - Access Road (N)	25	6	116	1378	0.018	25	13	0.0	0.0	2.660	A
4 - Private Road	82	21	52	1207	0.068	82	89	0.0	0.1	3.200	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	87	22	128	1011	0.086	87	32	0.1	0.1	3.895	A
2 - Barge Way	152	38	4	1122	0.135	152	211	0.1	0.2	3.709	A
3 - Access Road (N)	30	7	139	1359	0.022	30	16	0.0	0.0	2.706	A
4 - Private Road	98	24	62	1199	0.082	98	107	0.1	0.1	3.268	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	107	27	156	998	0.107	107	40	0.1	0.1	4.039	A
2 - Barge Way	186	47	4	1122	0.166	186	259	0.2	0.2	3.847	A
3 - Access Road (N)	36	9	171	1334	0.027	36	20	0.0	0.0	2.772	A
4 - Private Road	120	30	76	1189	0.101	120	131	0.1	0.1	3.366	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	107	27	156	998	0.107	107	40	0.1	0.1	4.040	A
2 - Barge Way	186	47	4	1122	0.166	186	259	0.2	0.2	3.847	A
3 - Access Road (N)	36	9	171	1334	0.027	36	20	0.0	0.0	2.773	A
4 - Private Road	120	30	76	1189	0.101	120	131	0.1	0.1	3.366	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	87	22	128	1011	0.086	87	32	0.1	0.1	3.898	A

<b>2 - Barge Way</b>	152	38	4	1122	0.135	152	211	0.2	0.2	3.711	A
<b>3 - Access Road (N)</b>	30	7	139	1359	0.022	30	16	0.0	0.0	2.709	A
<b>4 - Private Road</b>	98	24	62	1199	0.082	98	107	0.1	0.1	3.268	A

**17:30 - 17:45**

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>1 - Access (S)</b>	73	18	107	1021	0.072	73	27	0.1	0.1	3.797	A
<b>2 - Barge Way</b>	127	32	3	1122	0.113	127	177	0.2	0.1	3.620	A
<b>3 - Access Road (N)</b>	25	6	117	1377	0.018	25	14	0.0	0.0	2.663	A
<b>4 - Private Road</b>	82	21	52	1207	0.068	82	90	0.1	0.1	3.203	A

# 2031, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.27	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	44	100.000
2 - Barge Way		ONE HOUR	✓	216	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	22	0	22
	2 - Barge Way	57	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	96	0	100
	2 - Barge Way	49	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0



## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.06	5.05	0.1	A	40	61
2 - Barge Way	0.21	3.91	0.3	A	198	297
3 - Access Road (N)	0.02	2.83	0.0	A	18	28
4 - Private Road	0.12	4.69	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	33	8	70	775	0.043	33	58	0.0	0.0	4.850	A
2 - Barge Way	163	41	17	1165	0.140	162	85	0.0	0.2	3.587	A
3 - Access Road (N)	15	4	145	1351	0.011	15	34	0.0	0.0	2.693	A
4 - Private Road	69	17	59	883	0.078	69	100	0.0	0.1	4.420	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	40	10	84	769	0.051	40	70	0.0	0.1	4.935	A
2 - Barge Way	194	49	21	1162	0.167	194	102	0.2	0.2	3.718	A
3 - Access Road (N)	18	4	173	1328	0.014	18	41	0.0	0.0	2.748	A
4 - Private Road	83	21	71	877	0.094	83	120	0.1	0.1	4.530	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	102	761	0.064	48	86	0.1	0.1	5.054	A
2 - Barge Way	238	59	25	1158	0.205	238	125	0.2	0.3	3.910	A
3 - Access Road (N)	22	6	212	1296	0.017	22	51	0.0	0.0	2.825	A
4 - Private Road	101	25	87	869	0.117	101	147	0.1	0.1	4.686	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	102	761	0.064	48	86	0.1	0.1	5.054	A
2 - Barge Way	238	59	25	1158	0.205	238	126	0.3	0.3	3.911	A
3 - Access Road (N)	22	6	212	1295	0.017	22	51	0.0	0.0	2.826	A
4 - Private Road	101	25	87	869	0.117	101	148	0.1	0.1	4.686	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	40	10	84	769	0.051	40	70	0.1	0.1	4.938	A
2 - Barge Way	194	49	21	1162	0.167	194	103	0.3	0.2	3.723	A
3 - Access Road (N)	18	4	174	1327	0.014	18	41	0.0	0.0	2.750	A
4 - Private Road	83	21	71	877	0.094	83	121	0.1	0.1	4.532	A

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)											
2 - Barge Way											
3 - Access Road (N)											
4 - Private Road											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	33	8	70	775	0.043	33	59	0.1	0.0	4.853	A
<b>2 - Barge Way</b>	163	41	17	1165	0.140	163	86	0.2	0.2	3.591	A
<b>3 - Access Road (N)</b>	15	4	145	1351	0.011	15	35	0.0	0.0	2.696	A
<b>4 - Private Road</b>	69	17	60	883	0.078	69	101	0.1	0.1	4.427	A

# 2031, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.53	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	73	100.000
2 - Barge Way		ONE HOUR	✓	156	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	69	0	4
	2 - Barge Way	21	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	48	0	25
	2 - Barge Way	95	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	3.86	0.1	A	67	100
2 - Barge Way	0.15	3.62	0.2	A	143	215
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.32	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	55	14	107	1037	0.053	55	17	0.0	0.1	3.666	A
2 - Barge Way	117	29	3	1166	0.101	117	158	0.0	0.1	3.430	A
3 - Access Road (N)	25	6	106	1389	0.018	25	13	0.0	0.0	2.639	A
4 - Private Road	82	21	42	1216	0.067	82	89	0.0	0.1	3.173	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	66	16	128	1027	0.064	66	21	0.1	0.1	3.745	A
2 - Barge Way	140	35	4	1165	0.120	140	190	0.1	0.1	3.510	A
3 - Access Road (N)	30	7	128	1372	0.022	30	16	0.0	0.0	2.680	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.234	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	80	20	156	1013	0.079	80	25	0.1	0.1	3.859	A
2 - Barge Way	172	43	4	1165	0.147	172	232	0.1	0.2	3.623	A
3 - Access Road (N)	36	9	156	1350	0.027	36	20	0.0	0.0	2.738	A
4 - Private Road	120	30	62	1203	0.100	120	131	0.1	0.1	3.322	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	80	20	156	1013	0.079	80	25	0.1	0.1	3.860	A
2 - Barge Way	172	43	4	1165	0.147	172	232	0.2	0.2	3.623	A
3 - Access Road (N)	36	9	156	1350	0.027	36	20	0.0	0.0	2.739	A
4 - Private Road	120	30	62	1203	0.100	120	131	0.1	0.1	3.323	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	66	16	128	1027	0.064	66	21	0.1	0.1	3.749	A
2 - Barge Way	140	35	4	1165	0.120	140	190	0.2	0.1	3.514	A
3 - Access Road (N)	30	7	128	1372	0.022	30	16	0.0	0.0	2.680	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.237	A

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	66	16	128	1027	0.064	66	21	0.1	0.1	3.749	A
2 - Barge Way	140	35	4	1165	0.120	140	190	0.2	0.1	3.514	A
3 - Access Road (N)	30	7	128	1372	0.022	30	16	0.0	0.0	2.680	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.237	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	55	14	107	1036	0.053	55	17	0.1	0.1	3.670	A
<b>2 - Barge Way</b>	117	29	3	1166	0.101	118	159	0.1	0.1	3.436	A
<b>3 - Access Road (N)</b>	25	6	107	1388	0.018	25	14	0.0	0.0	2.641	A
<b>4 - Private Road</b>	82	21	42	1216	0.067	82	90	0.1	0.1	3.173	A

# 2031 + Cumulative , AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.27	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D21	2031 + Cumulative	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	44	100.000
2 - Barge Way		ONE HOUR	✓	216	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	22	0	22
	2 - Barge Way	57	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	96	0	100
	2 - Barge Way	49	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.06	5.05	0.1	A	40	61
2 - Barge Way	0.21	3.91	0.3	A	198	297
3 - Access Road (N)	0.02	2.83	0.0	A	18	28
4 - Private Road	0.12	4.69	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	33	8	70	775	0.043	33	58	0.0	0.0	4.850	A
2 - Barge Way	163	41	17	1165	0.140	162	85	0.0	0.2	3.587	A
3 - Access Road (N)	15	4	145	1351	0.011	15	34	0.0	0.0	2.693	A
4 - Private Road	69	17	59	883	0.078	69	100	0.0	0.1	4.420	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	40	10	84	769	0.051	40	70	0.0	0.1	4.935	A
2 - Barge Way	194	49	21	1162	0.167	194	102	0.2	0.2	3.718	A
3 - Access Road (N)	18	4	173	1328	0.014	18	41	0.0	0.0	2.748	A
4 - Private Road	83	21	71	877	0.094	83	120	0.1	0.1	4.530	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	102	761	0.064	48	86	0.1	0.1	5.054	A
2 - Barge Way	238	59	25	1158	0.205	238	125	0.2	0.3	3.910	A
3 - Access Road (N)	22	6	212	1296	0.017	22	51	0.0	0.0	2.825	A
4 - Private Road	101	25	87	869	0.117	101	147	0.1	0.1	4.686	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	48	12	102	761	0.064	48	86	0.1	0.1	5.054	A
2 - Barge Way	238	59	25	1158	0.205	238	126	0.3	0.3	3.911	A
3 - Access Road (N)	22	6	212	1295	0.017	22	51	0.0	0.0	2.826	A
4 - Private Road	101	25	87	869	0.117	101	148	0.1	0.1	4.686	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	40	10	84	769	0.051	40	70	0.1	0.1	4.938	A
2 - Barge Way	194	49	21	1162	0.167	194	103	0.3	0.2	3.723	A
3 - Access Road (N)	18	4	174	1327	0.014	18	41	0.0	0.0	2.750	A
4 - Private Road	83	21	71	877	0.094	83	121	0.1	0.1	4.532	A

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)											
2 - Barge Way											
3 - Access Road (N)											
4 - Private Road											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	33	8	70	775	0.043	33	59	0.1	0.0	4.853	A
<b>2 - Barge Way</b>	163	41	17	1165	0.140	163	86	0.2	0.2	3.591	A
<b>3 - Access Road (N)</b>	15	4	145	1351	0.011	15	35	0.0	0.0	2.696	A
<b>4 - Private Road</b>	69	17	60	883	0.078	69	101	0.1	0.1	4.427	A



# 2031 + Cumulative, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.53	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D22	2031 + Cumulative	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	73	100.000
2 - Barge Way		ONE HOUR	✓	156	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	69	0	4
	2 - Barge Way	21	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	48	0	25
	2 - Barge Way	95	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	3.86	0.1	A	67	100
2 - Barge Way	0.15	3.62	0.2	A	143	215
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.32	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	55	14	107	1037	0.053	55	17	0.0	0.1	3.666	A
2 - Barge Way	117	29	3	1166	0.101	117	158	0.0	0.1	3.430	A
3 - Access Road (N)	25	6	106	1389	0.018	25	13	0.0	0.0	2.639	A
4 - Private Road	82	21	42	1216	0.067	82	89	0.0	0.1	3.173	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	66	16	128	1027	0.064	66	21	0.1	0.1	3.745	A
2 - Barge Way	140	35	4	1165	0.120	140	190	0.1	0.1	3.510	A
3 - Access Road (N)	30	7	128	1372	0.022	30	16	0.0	0.0	2.680	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.234	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	80	20	156	1013	0.079	80	25	0.1	0.1	3.859	A
2 - Barge Way	172	43	4	1165	0.147	172	232	0.1	0.2	3.623	A
3 - Access Road (N)	36	9	156	1350	0.027	36	20	0.0	0.0	2.738	A
4 - Private Road	120	30	62	1203	0.100	120	131	0.1	0.1	3.322	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	80	20	156	1013	0.079	80	25	0.1	0.1	3.860	A
2 - Barge Way	172	43	4	1165	0.147	172	232	0.2	0.2	3.623	A
3 - Access Road (N)	36	9	156	1350	0.027	36	20	0.0	0.0	2.739	A
4 - Private Road	120	30	62	1203	0.100	120	131	0.1	0.1	3.323	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	66	16	128	1027	0.064	66	21	0.1	0.1	3.749	A
2 - Barge Way	140	35	4	1165	0.120	140	190	0.2	0.1	3.514	A
3 - Access Road (N)	30	7	128	1372	0.022	30	16	0.0	0.0	2.680	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.237	A

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	66	16	128	1027	0.064	66	21	0.1	0.1	3.749	A
2 - Barge Way	140	35	4	1165	0.120	140	190	0.2	0.1	3.514	A
3 - Access Road (N)	30	7	128	1372	0.022	30	16	0.0	0.0	2.680	A
4 - Private Road	98	24	50	1211	0.081	98	107	0.1	0.1	3.237	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	55	14	107	1036	0.053	55	17	0.1	0.1	3.670	A
2 - Barge Way	117	29	3	1166	0.101	118	159	0.1	0.1	3.436	A
3 - Access Road (N)	25	6	107	1388	0.018	25	14	0.0	0.0	2.641	A
4 - Private Road	82	21	42	1216	0.067	82	90	0.1	0.1	3.173	A

# 2031 + K3 Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.31	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D23	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	46	100.000
2 - Barge Way		ONE HOUR	✓	219	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	24	0	22
	2 - Barge Way	60	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	96	0	100
	2 - Barge Way	52	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.07	5.07	0.1	A	42	63
2 - Barge Way	0.21	3.97	0.3	A	201	301
3 - Access Road (N)	0.02	2.83	0.0	A	18	28
4 - Private Road	0.12	4.70	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.045	34	61	0.0	0.0	4.857	A
2 - Barge Way	165	41	17	1156	0.143	164	87	0.0	0.2	3.629	A
3 - Access Road (N)	15	4	147	1349	0.011	15	34	0.0	0.0	2.698	A
4 - Private Road	69	17	62	881	0.079	69	100	0.0	0.1	4.429	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	41	10	84	769	0.054	41	73	0.0	0.1	4.945	A
2 - Barge Way	197	49	21	1153	0.171	197	104	0.2	0.2	3.764	A
3 - Access Road (N)	18	4	176	1325	0.014	18	41	0.0	0.0	2.754	A
4 - Private Road	83	21	74	875	0.095	83	120	0.1	0.1	4.542	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	102	761	0.067	51	89	0.1	0.1	5.067	A
2 - Barge Way	241	60	25	1149	0.210	241	128	0.2	0.3	3.964	A
3 - Access Road (N)	22	6	216	1292	0.017	22	51	0.0	0.0	2.834	A
4 - Private Road	101	25	90	867	0.117	101	147	0.1	0.1	4.701	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	102	761	0.067	51	89	0.1	0.1	5.068	A
2 - Barge Way	241	60	25	1149	0.210	241	128	0.3	0.3	3.965	A
3 - Access Road (N)	22	6	216	1292	0.017	22	51	0.0	0.0	2.834	A
4 - Private Road	101	25	90	867	0.117	101	148	0.1	0.1	4.701	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	41	10	84	769	0.054	41	73	0.1	0.1	4.948	A
2 - Barge Way	197	49	21	1153	0.171	197	104	0.3	0.2	3.766	A
3 - Access Road (N)	18	4	176	1324	0.014	18	41	0.0	0.0	2.757	A
4 - Private Road	83	21	74	875	0.095	83	121	0.1	0.1	4.545	A

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	41	10	84	769	0.054	41	73	0.1	0.1	4.948	A
2 - Barge Way	197	49	21	1153	0.171	197	104	0.3	0.2	3.766	A
3 - Access Road (N)	18	4	176	1324	0.014	18	41	0.0	0.0	2.757	A
4 - Private Road	83	21	74	875	0.095	83	121	0.1	0.1	4.545	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.045	35	61	0.1	0.0	4.861	A
2 - Barge Way	165	41	17	1156	0.143	165	87	0.2	0.2	3.633	A
3 - Access Road (N)	15	4	148	1348	0.011	15	35	0.0	0.0	2.702	A
4 - Private Road	69	17	62	881	0.079	69	101	0.1	0.1	4.434	A

# 2031 + K3 Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.56	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D24	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	75	100.000
2 - Barge Way		ONE HOUR	✓	158	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	71	0	4
	2 - Barge Way	23	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	49	0	25
	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	3.90	0.1	A	69	103
2 - Barge Way	0.15	3.66	0.2	A	145	217
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.33	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	56	19	0.0	0.1	3.697	A
2 - Barge Way	119	30	3	1158	0.103	118	160	0.0	0.1	3.462	A
3 - Access Road (N)	25	6	108	1387	0.018	25	13	0.0	0.0	2.642	A
4 - Private Road	82	21	44	1215	0.068	82	89	0.0	0.1	3.177	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	191	0.1	0.1	3.544	A
3 - Access Road (N)	30	7	129	1370	0.022	30	16	0.0	0.0	2.684	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.239	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	234	0.1	0.2	3.661	A
3 - Access Road (N)	36	9	158	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	235	0.2	0.2	3.661	A
3 - Access Road (N)	36	9	159	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	192	0.2	0.1	3.548	A
3 - Access Road (N)	30	7	130	1370	0.022	30	16	0.0	0.0	2.687	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.243	A

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	192	0.2	0.1	3.548	A
3 - Access Road (N)	30	7	130	1370	0.022	30	16	0.0	0.0	2.687	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.243	A



Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	57	19	0.1	0.1	3.702	A
2 - Barge Way	119	30	3	1158	0.103	119	160	0.1	0.1	3.465	A
3 - Access Road (N)	25	6	109	1387	0.018	25	14	0.0	0.0	2.643	A
4 - Private Road	82	21	44	1215	0.068	82	90	0.1	0.1	3.180	A

# 2031 + WKN Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.40	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D25	2031 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	54	100.000
2 - Barge Way		ONE HOUR	✓	226	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	32	0	22
	2 - Barge Way	67	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	97	0	100
	2 - Barge Way	57	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	5.14	0.1	A	50	74
2 - Barge Way	0.22	4.08	0.3	A	207	311
3 - Access Road (N)	0.02	2.85	0.0	A	18	28
4 - Private Road	0.12	4.74	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	41	10	70	774	0.053	40	66	0.0	0.1	4.905	A
2 - Barge Way	170	43	17	1138	0.150	169	93	0.0	0.2	3.715	A
3 - Access Road (N)	15	4	152	1343	0.011	15	34	0.0	0.0	2.710	A
4 - Private Road	69	17	67	878	0.079	69	100	0.0	0.1	4.450	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	49	12	84	768	0.063	48	79	0.1	0.1	5.003	A
2 - Barge Way	203	51	21	1135	0.179	203	111	0.2	0.2	3.862	A
3 - Access Road (N)	18	4	182	1318	0.014	18	41	0.0	0.0	2.769	A
4 - Private Road	83	21	80	871	0.095	83	120	0.1	0.1	4.567	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	59	15	102	760	0.078	59	97	0.1	0.1	5.140	A
2 - Barge Way	249	62	25	1131	0.220	249	136	0.2	0.3	4.078	A
3 - Access Road (N)	22	6	223	1283	0.017	22	51	0.0	0.0	2.853	A
4 - Private Road	101	25	98	861	0.118	101	147	0.1	0.1	4.735	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	59	15	102	760	0.078	59	97	0.1	0.1	5.140	A
2 - Barge Way	249	62	25	1131	0.220	249	137	0.3	0.3	4.079	A
3 - Access Road (N)	22	6	224	1283	0.017	22	51	0.0	0.0	2.854	A
4 - Private Road	101	25	98	861	0.118	101	148	0.1	0.1	4.735	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	49	12	84	768	0.063	49	79	0.1	0.1	5.004	A
2 - Barge Way	203	51	21	1135	0.179	203	112	0.3	0.2	3.866	A
3 - Access Road (N)	18	4	183	1317	0.014	18	41	0.0	0.0	2.772	A
4 - Private Road	83	21	80	871	0.095	83	121	0.1	0.1	4.571	A

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	49	12	84	768	0.063	49	79	0.1	0.1	5.004	A
2 - Barge Way	203	51	21	1135	0.179	203	112	0.3	0.2	3.866	A
3 - Access Road (N)	18	4	183	1317	0.014	18	41	0.0	0.0	2.772	A
4 - Private Road	83	21	80	871	0.095	83	121	0.1	0.1	4.571	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	41	10	70	774	0.053	41	66	0.1	0.1	4.909	A
2 - Barge Way	170	43	17	1138	0.150	170	93	0.2	0.2	3.722	A
3 - Access Road (N)	15	4	153	1342	0.011	15	35	0.0	0.0	2.714	A
4 - Private Road	69	17	67	877	0.079	69	101	0.1	0.1	4.455	A

# 2031 + WKN Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.67	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D26	2031 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	94	100.000
2 - Barge Way		ONE HOUR	✓	166	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	90	0	4
	2 - Barge Way	31	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	48	0	25
	2 - Barge Way	97	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.10	3.97	0.1	A	86	129
2 - Barge Way	0.16	3.80	0.2	A	152	228
3 - Access Road (N)	0.03	2.76	0.0	A	30	45
4 - Private Road	0.10	3.36	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	71	18	107	1035	0.068	70	25	0.0	0.1	3.734	A
2 - Barge Way	125	31	3	1131	0.111	124	174	0.0	0.1	3.574	A
3 - Access Road (N)	25	6	114	1380	0.018	25	13	0.0	0.0	2.655	A
4 - Private Road	82	21	50	1209	0.068	82	89	0.0	0.1	3.193	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	85	21	128	1025	0.082	84	30	0.1	0.1	3.828	A
2 - Barge Way	149	37	4	1131	0.132	149	208	0.1	0.2	3.667	A
3 - Access Road (N)	30	7	137	1362	0.022	30	16	0.0	0.0	2.700	A
4 - Private Road	98	24	59	1202	0.082	98	107	0.1	0.1	3.260	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	103	26	156	1011	0.102	103	36	0.1	0.1	3.966	A
2 - Barge Way	183	46	4	1130	0.162	183	255	0.2	0.2	3.798	A
3 - Access Road (N)	36	9	167	1338	0.027	36	20	0.0	0.0	2.765	A
4 - Private Road	120	30	73	1192	0.101	120	131	0.1	0.1	3.356	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	103	26	156	1011	0.102	103	36	0.1	0.1	3.966	A
2 - Barge Way	183	46	4	1130	0.162	183	255	0.2	0.2	3.798	A
3 - Access Road (N)	36	9	167	1338	0.027	36	20	0.0	0.0	2.765	A
4 - Private Road	120	30	73	1192	0.101	120	131	0.1	0.1	3.356	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	85	21	128	1025	0.082	85	30	0.1	0.1	3.829	A
2 - Barge Way	149	37	4	1131	0.132	149	209	0.2	0.2	3.668	A
3 - Access Road (N)	30	7	137	1362	0.022	30	16	0.0	0.0	2.701	A
4 - Private Road	98	24	59	1202	0.082	98	107	0.1	0.1	3.263	A

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)											
2 - Barge Way											
3 - Access Road (N)											
4 - Private Road											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	71	18	107	1034	0.068	71	25	0.1	0.1	3.738	A
<b>2 - Barge Way</b>	125	31	3	1131	0.111	125	175	0.2	0.1	3.578	A
<b>3 - Access Road (N)</b>	25	6	115	1380	0.018	25	14	0.0	0.0	2.658	A
<b>4 - Private Road</b>	82	21	50	1209	0.068	82	90	0.1	0.1	3.197	A

# 2031 + K3 and WKN Operational, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.44	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D27	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	57	100.000
2 - Barge Way		ONE HOUR	✓	229	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	35	0	22
	2 - Barge Way	70	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	97	0	100
	2 - Barge Way	59	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0



## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	5.16	0.1	A	52	78
2 - Barge Way	0.22	4.13	0.3	A	210	315
3 - Access Road (N)	0.02	2.86	0.0	A	18	28
4 - Private Road	0.12	4.75	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	70	774	0.055	43	68	0.0	0.1	4.919	A
2 - Barge Way	172	43	17	1131	0.153	172	95	0.0	0.2	3.753	A
3 - Access Road (N)	15	4	154	1340	0.011	15	34	0.0	0.0	2.715	A
4 - Private Road	69	17	69	876	0.079	69	100	0.0	0.1	4.459	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	84	768	0.067	51	82	0.1	0.1	5.020	A
2 - Barge Way	206	51	21	1128	0.183	206	114	0.2	0.2	3.905	A
3 - Access Road (N)	18	4	185	1314	0.014	18	41	0.0	0.0	2.776	A
4 - Private Road	83	21	83	869	0.095	83	120	0.1	0.1	4.579	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	63	16	102	760	0.083	63	100	0.1	0.1	5.162	A
2 - Barge Way	252	63	25	1124	0.224	252	140	0.2	0.3	4.128	A
3 - Access Road (N)	22	6	227	1279	0.017	22	51	0.0	0.0	2.862	A
4 - Private Road	101	25	101	859	0.118	101	147	0.1	0.1	4.750	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	63	16	102	760	0.083	63	100	0.1	0.1	5.163	A
2 - Barge Way	252	63	25	1124	0.224	252	140	0.3	0.3	4.130	A
3 - Access Road (N)	22	6	227	1279	0.017	22	51	0.0	0.0	2.862	A
4 - Private Road	101	25	101	859	0.118	101	148	0.1	0.1	4.750	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	84	768	0.067	51	82	0.1	0.1	5.021	A
2 - Barge Way	206	51	21	1128	0.183	206	114	0.3	0.2	3.907	A
3 - Access Road (N)	18	4	185	1314	0.014	18	41	0.0	0.0	2.779	A
4 - Private Road	83	21	83	869	0.095	83	121	0.1	0.1	4.581	A

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	84	768	0.067	51	82	0.1	0.1	5.021	A
2 - Barge Way	206	51	21	1128	0.183	206	114	0.3	0.2	3.907	A
3 - Access Road (N)	18	4	185	1314	0.014	18	41	0.0	0.0	2.779	A
4 - Private Road	83	21	83	869	0.095	83	121	0.1	0.1	4.581	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	43	11	70	774	0.055	43	69	0.1	0.1	4.925	A
<b>2 - Barge Way</b>	172	43	17	1130	0.153	173	96	0.2	0.2	3.758	A
<b>3 - Access Road (N)</b>	15	4	155	1340	0.011	15	35	0.0	0.0	2.717	A
<b>4 - Private Road</b>	69	17	69	876	0.079	69	101	0.1	0.1	4.466	A

# 2031 + K3 and WKN Operational, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.72	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D28	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	97	100.000
2 - Barge Way		ONE HOUR	✓	169	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	93	0	4
	2 - Barge Way	34	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	50	0	25
	2 - Barge Way	97	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.11	4.04	0.1	A	89	134
2 - Barge Way	0.17	3.85	0.2	A	155	233
3 - Access Road (N)	0.03	2.77	0.0	A	30	45
4 - Private Road	0.10	3.37	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	73	18	107	1021	0.072	73	27	0.0	0.1	3.796	A
2 - Barge Way	127	32	3	1122	0.113	127	176	0.0	0.1	3.613	A
3 - Access Road (N)	25	6	116	1378	0.018	25	13	0.0	0.0	2.660	A
4 - Private Road	82	21	52	1207	0.068	82	89	0.0	0.1	3.200	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	87	22	128	1011	0.086	87	32	0.1	0.1	3.895	A
2 - Barge Way	152	38	4	1122	0.135	152	211	0.1	0.2	3.709	A
3 - Access Road (N)	30	7	139	1359	0.022	30	16	0.0	0.0	2.706	A
4 - Private Road	98	24	62	1199	0.082	98	107	0.1	0.1	3.268	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	107	27	156	998	0.107	107	40	0.1	0.1	4.039	A
2 - Barge Way	186	47	4	1122	0.166	186	259	0.2	0.2	3.847	A
3 - Access Road (N)	36	9	171	1334	0.027	36	20	0.0	0.0	2.772	A
4 - Private Road	120	30	76	1189	0.101	120	131	0.1	0.1	3.366	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	107	27	156	998	0.107	107	40	0.1	0.1	4.040	A
2 - Barge Way	186	47	4	1122	0.166	186	259	0.2	0.2	3.847	A
3 - Access Road (N)	36	9	171	1334	0.027	36	20	0.0	0.0	2.773	A
4 - Private Road	120	30	76	1189	0.101	120	131	0.1	0.1	3.366	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	87	22	128	1011	0.086	87	32	0.1	0.1	3.898	A
2 - Barge Way	152	38	4	1122	0.135	152	211	0.2	0.2	3.711	A
3 - Access Road (N)	30	7	139	1359	0.022	30	16	0.0	0.0	2.709	A
4 - Private Road	98	24	62	1199	0.082	98	107	0.1	0.1	3.268	A

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	87	22	128	1011	0.086	87	32	0.1	0.1	3.898	A
2 - Barge Way	152	38	4	1122	0.135	152	211	0.2	0.2	3.711	A
3 - Access Road (N)	30	7	139	1359	0.022	30	16	0.0	0.0	2.709	A
4 - Private Road	98	24	62	1199	0.082	98	107	0.1	0.1	3.268	A

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	73	18	107	1021	0.072	73	27	0.1	0.1	3.797	A
<b>2 - Barge Way</b>	127	32	3	1122	0.113	127	177	0.2	0.1	3.620	A
<b>3 - Access Road (N)</b>	25	6	117	1377	0.018	25	14	0.0	0.0	2.663	A
<b>4 - Private Road</b>	82	21	52	1207	0.068	82	90	0.1	0.1	3.203	A

# 2031 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.31	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D29	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	46	100.000
2 - Barge Way		ONE HOUR	✓	219	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	24	0	22
	2 - Barge Way	60	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
1 - Access (S)		0	96	0	100

From	2 - Barge Way	52	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.07	5.07	0.1	A	42	63
2 - Barge Way	0.21	3.97	0.3	A	201	301
3 - Access Road (N)	0.02	2.83	0.0	A	18	28
4 - Private Road	0.12	4.70	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	35	9	70	775	0.045	34	61	0.0	0.0	4.857	A
2 - Barge Way	165	41	17	1156	0.143	164	87	0.0	0.2	3.629	A
3 - Access Road (N)	15	4	147	1349	0.011	15	34	0.0	0.0	2.698	A
4 - Private Road	69	17	62	881	0.079	69	100	0.0	0.1	4.429	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	41	10	84	769	0.054	41	73	0.0	0.1	4.945	A
2 - Barge Way	197	49	21	1153	0.171	197	104	0.2	0.2	3.764	A
3 - Access Road (N)	18	4	176	1325	0.014	18	41	0.0	0.0	2.754	A
4 - Private Road	83	21	74	875	0.095	83	120	0.1	0.1	4.542	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	102	761	0.067	51	89	0.1	0.1	5.067	A
2 - Barge Way	241	60	25	1149	0.210	241	128	0.2	0.3	3.964	A
3 - Access Road (N)	22	6	216	1292	0.017	22	51	0.0	0.0	2.834	A
4 - Private Road	101	25	90	867	0.117	101	147	0.1	0.1	4.701	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	102	761	0.067	51	89	0.1	0.1	5.068	A
2 - Barge Way	241	60	25	1149	0.210	241	128	0.3	0.3	3.965	A
3 - Access Road (N)	22	6	216	1292	0.017	22	51	0.0	0.0	2.834	A
4 - Private Road	101	25	90	867	0.117	101	148	0.1	0.1	4.701	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	41	10	84	769	0.054	41	73	0.1	0.1	4.948	A
2 - Barge Way	197	49	21	1153	0.171	197	104	0.3	0.2	3.766	A

<b>3 - Access Road (N)</b>	18	4	176	1324	0.014	18	41	0.0	0.0	2.757	A
<b>4 - Private Road</b>	83	21	74	875	0.095	83	121	0.1	0.1	4.545	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	35	9	70	775	0.045	35	61	0.1	0.0	4.861	A
<b>2 - Barge Way</b>	165	41	17	1156	0.143	165	87	0.2	0.2	3.633	A
<b>3 - Access Road (N)</b>	15	4	148	1348	0.011	15	35	0.0	0.0	2.702	A
<b>4 - Private Road</b>	69	17	62	881	0.079	69	101	0.1	0.1	4.434	A



# 2031 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.56	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D30	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	75	100.000
2 - Barge Way		ONE HOUR	✓	158	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	71	0	4
	2 - Barge Way	23	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
1 - Access (S)		0	49	0	25

From	2 - Barge Way	96	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	3.90	0.1	A	69	103
2 - Barge Way	0.15	3.66	0.2	A	145	217
3 - Access Road (N)	0.03	2.74	0.0	A	30	45
4 - Private Road	0.10	3.33	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	56	14	107	1030	0.055	56	19	0.0	0.1	3.697	A
2 - Barge Way	119	30	3	1158	0.103	118	160	0.0	0.1	3.462	A
3 - Access Road (N)	25	6	108	1387	0.018	25	13	0.0	0.0	2.642	A
4 - Private Road	82	21	44	1215	0.068	82	89	0.0	0.1	3.177	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	191	0.1	0.1	3.544	A
3 - Access Road (N)	30	7	129	1370	0.022	30	16	0.0	0.0	2.684	A
4 - Private Road	98	24	52	1209	0.081	98	107	0.1	0.1	3.239	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	234	0.1	0.2	3.661	A
3 - Access Road (N)	36	9	158	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	83	21	156	1006	0.082	83	28	0.1	0.1	3.897	A
2 - Barge Way	174	43	4	1157	0.150	174	235	0.2	0.2	3.661	A
3 - Access Road (N)	36	9	159	1348	0.027	36	20	0.0	0.0	2.744	A
4 - Private Road	120	30	64	1201	0.100	120	131	0.1	0.1	3.329	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	67	17	128	1020	0.066	67	22	0.1	0.1	3.779	A
2 - Barge Way	142	36	4	1157	0.123	142	192	0.2	0.1	3.548	A

<b>3 - Access Road (N)</b>	30	7	130	1370	0.022	30	16	0.0	0.0	2.687	A
<b>4 - Private Road</b>	98	24	52	1209	0.081	98	107	0.1	0.1	3.243	A

**17:30 - 17:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	56	14	107	1030	0.055	57	19	0.1	0.1	3.702	A
<b>2 - Barge Way</b>	119	30	3	1158	0.103	119	160	0.1	0.1	3.465	A
<b>3 - Access Road (N)</b>	25	6	109	1387	0.018	25	14	0.0	0.0	2.643	A
<b>4 - Private Road</b>	82	21	44	1215	0.068	82	90	0.1	0.1	3.180	A

# 2031 + WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.40	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D31	2031 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	54	100.000
2 - Barge Way		ONE HOUR	✓	226	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	32	0	22
	2 - Barge Way	67	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
1 - Access (S)		0	97	0	100

From	2 - Barge Way	57	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	5.14	0.1	A	50	74
2 - Barge Way	0.22	4.08	0.3	A	207	311
3 - Access Road (N)	0.02	2.85	0.0	A	18	28
4 - Private Road	0.12	4.74	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	41	10	70	774	0.053	40	66	0.0	0.1	4.905	A
2 - Barge Way	170	43	17	1138	0.150	169	93	0.0	0.2	3.715	A
3 - Access Road (N)	15	4	152	1343	0.011	15	34	0.0	0.0	2.710	A
4 - Private Road	69	17	67	878	0.079	69	100	0.0	0.1	4.450	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	49	12	84	768	0.063	48	79	0.1	0.1	5.003	A
2 - Barge Way	203	51	21	1135	0.179	203	111	0.2	0.2	3.862	A
3 - Access Road (N)	18	4	182	1318	0.014	18	41	0.0	0.0	2.769	A
4 - Private Road	83	21	80	871	0.095	83	120	0.1	0.1	4.567	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	59	15	102	760	0.078	59	97	0.1	0.1	5.140	A
2 - Barge Way	249	62	25	1131	0.220	249	136	0.2	0.3	4.078	A
3 - Access Road (N)	22	6	223	1283	0.017	22	51	0.0	0.0	2.853	A
4 - Private Road	101	25	98	861	0.118	101	147	0.1	0.1	4.735	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	59	15	102	760	0.078	59	97	0.1	0.1	5.140	A
2 - Barge Way	249	62	25	1131	0.220	249	137	0.3	0.3	4.079	A
3 - Access Road (N)	22	6	224	1283	0.017	22	51	0.0	0.0	2.854	A
4 - Private Road	101	25	98	861	0.118	101	148	0.1	0.1	4.735	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	49	12	84	768	0.063	49	79	0.1	0.1	5.004	A
2 - Barge Way	203	51	21	1135	0.179	203	112	0.3	0.2	3.866	A

<b>3 - Access Road (N)</b>	18	4	183	1317	0.014	18	41	0.0	0.0	2.772	A
<b>4 - Private Road</b>	83	21	80	871	0.095	83	121	0.1	0.1	4.571	A

**08:30 - 08:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	41	10	70	774	0.053	41	66	0.1	0.1	4.909	A
<b>2 - Barge Way</b>	170	43	17	1138	0.150	170	93	0.2	0.2	3.722	A
<b>3 - Access Road (N)</b>	15	4	153	1342	0.011	15	35	0.0	0.0	2.714	A
<b>4 - Private Road</b>	69	17	67	877	0.079	69	101	0.1	0.1	4.455	A

# 2031 + WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.67	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D32	2031 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	94	100.000
2 - Barge Way		ONE HOUR	✓	166	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	90	0	4
	2 - Barge Way	31	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
1 - Access (S)		0	48	0	25

From	2 - Barge Way	97	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.10	3.97	0.1	A	86	129
2 - Barge Way	0.16	3.80	0.2	A	152	228
3 - Access Road (N)	0.03	2.76	0.0	A	30	45
4 - Private Road	0.10	3.36	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	71	18	107	1035	0.068	70	25	0.0	0.1	3.734	A
2 - Barge Way	125	31	3	1131	0.111	124	174	0.0	0.1	3.574	A
3 - Access Road (N)	25	6	114	1380	0.018	25	13	0.0	0.0	2.655	A
4 - Private Road	82	21	50	1209	0.068	82	89	0.0	0.1	3.193	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	85	21	128	1025	0.082	84	30	0.1	0.1	3.828	A
2 - Barge Way	149	37	4	1131	0.132	149	208	0.1	0.2	3.667	A
3 - Access Road (N)	30	7	137	1362	0.022	30	16	0.0	0.0	2.700	A
4 - Private Road	98	24	59	1202	0.082	98	107	0.1	0.1	3.260	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	103	26	156	1011	0.102	103	36	0.1	0.1	3.966	A
2 - Barge Way	183	46	4	1130	0.162	183	255	0.2	0.2	3.798	A
3 - Access Road (N)	36	9	167	1338	0.027	36	20	0.0	0.0	2.765	A
4 - Private Road	120	30	73	1192	0.101	120	131	0.1	0.1	3.356	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	103	26	156	1011	0.102	103	36	0.1	0.1	3.966	A
2 - Barge Way	183	46	4	1130	0.162	183	255	0.2	0.2	3.798	A
3 - Access Road (N)	36	9	167	1338	0.027	36	20	0.0	0.0	2.765	A
4 - Private Road	120	30	73	1192	0.101	120	131	0.1	0.1	3.356	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	85	21	128	1025	0.082	85	30	0.1	0.1	3.829	A
2 - Barge Way	149	37	4	1131	0.132	149	209	0.2	0.2	3.668	A



<b>3 - Access Road (N)</b>	30	7	137	1362	0.022	30	16	0.0	0.0	2.701	A
<b>4 - Private Road</b>	98	24	59	1202	0.082	98	107	0.1	0.1	3.263	A

**17:30 - 17:45**

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
<b>1 - Access (S)</b>	71	18	107	1034	0.068	71	25	0.1	0.1	3.738	A
<b>2 - Barge Way</b>	125	31	3	1131	0.111	125	175	0.2	0.1	3.578	A
<b>3 - Access Road (N)</b>	25	6	115	1380	0.018	25	14	0.0	0.0	2.658	A
<b>4 - Private Road</b>	82	21	50	1209	0.068	82	90	0.1	0.1	3.197	A

# 2031 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	4.44	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D33	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	57	100.000
2 - Barge Way		ONE HOUR	✓	229	100.000
3 - Access Road (N)		ONE HOUR	✓	20	100.000
4 - Private Road		ONE HOUR	✓	92	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	35	0	22
	2 - Barge Way	70	2	46	111
	3 - Access Road (N)	0	20	0	0
	4 - Private Road	21	70	0	1

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road

From	1 - Access (S)	0	97	0	100
	2 - Barge Way	59	50	0	36
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	91	61	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.08	5.16	0.1	A	52	78
2 - Barge Way	0.22	4.13	0.3	A	210	315
3 - Access Road (N)	0.02	2.86	0.0	A	18	28
4 - Private Road	0.12	4.75	0.1	A	84	127

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	43	11	70	774	0.055	43	68	0.0	0.1	4.919	A
2 - Barge Way	172	43	17	1131	0.153	172	95	0.0	0.2	3.753	A
3 - Access Road (N)	15	4	154	1340	0.011	15	34	0.0	0.0	2.715	A
4 - Private Road	69	17	69	876	0.079	69	100	0.0	0.1	4.459	A

#### 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	84	768	0.067	51	82	0.1	0.1	5.020	A
2 - Barge Way	206	51	21	1128	0.183	206	114	0.2	0.2	3.905	A
3 - Access Road (N)	18	4	185	1314	0.014	18	41	0.0	0.0	2.776	A
4 - Private Road	83	21	83	869	0.095	83	120	0.1	0.1	4.579	A

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	63	16	102	760	0.083	63	100	0.1	0.1	5.162	A
2 - Barge Way	252	63	25	1124	0.224	252	140	0.2	0.3	4.128	A
3 - Access Road (N)	22	6	227	1279	0.017	22	51	0.0	0.0	2.862	A
4 - Private Road	101	25	101	859	0.118	101	147	0.1	0.1	4.750	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	63	16	102	760	0.083	63	100	0.1	0.1	5.163	A
2 - Barge Way	252	63	25	1124	0.224	252	140	0.3	0.3	4.130	A
3 - Access Road (N)	22	6	227	1279	0.017	22	51	0.0	0.0	2.862	A
4 - Private Road	101	25	101	859	0.118	101	148	0.1	0.1	4.750	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	51	13	84	768	0.067	51	82	0.1	0.1	5.021	A

<b>2 - Barge Way</b>	206	51	21	1128	0.183	206	114	0.3	0.2	3.907	A
<b>3 - Access Road (N)</b>	18	4	185	1314	0.014	18	41	0.0	0.0	2.779	A
<b>4 - Private Road</b>	83	21	83	869	0.095	83	121	0.1	0.1	4.581	A

**08:30 - 08:45**

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>1 - Access (S)</b>	43	11	70	774	0.055	43	69	0.1	0.1	4.925	A
<b>2 - Barge Way</b>	172	43	17	1130	0.153	173	96	0.2	0.2	3.758	A
<b>3 - Access Road (N)</b>	15	4	155	1340	0.011	15	35	0.0	0.0	2.717	A
<b>4 - Private Road</b>	69	17	69	876	0.079	69	101	0.1	0.1	4.466	A

# 2031 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4	3.72	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D34	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Access (S)		ONE HOUR	✓	97	100.000
2 - Barge Way		ONE HOUR	✓	169	100.000
3 - Access Road (N)		ONE HOUR	✓	33	100.000
4 - Private Road		ONE HOUR	✓	109	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road
From	1 - Access (S)	0	93	0	4
	2 - Barge Way	34	2	18	115
	3 - Access Road (N)	0	33	0	0
	4 - Private Road	2	107	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Access (S)	2 - Barge Way	3 - Access Road (N)	4 - Private Road

From	1 - Access (S)	0	50	0	25
	2 - Barge Way	97	50	0	27
	3 - Access Road (N)	0	0	0	0
	4 - Private Road	50	22	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Access (S)	0.11	4.04	0.1	A	89	134
2 - Barge Way	0.17	3.85	0.2	A	155	233
3 - Access Road (N)	0.03	2.77	0.0	A	30	45
4 - Private Road	0.10	3.37	0.1	A	100	150

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	73	18	107	1021	0.072	73	27	0.0	0.1	3.796	A
2 - Barge Way	127	32	3	1122	0.113	127	176	0.0	0.1	3.613	A
3 - Access Road (N)	25	6	116	1378	0.018	25	13	0.0	0.0	2.660	A
4 - Private Road	82	21	52	1207	0.068	82	89	0.0	0.1	3.200	A

#### 16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	87	22	128	1011	0.086	87	32	0.1	0.1	3.895	A
2 - Barge Way	152	38	4	1122	0.135	152	211	0.1	0.2	3.709	A
3 - Access Road (N)	30	7	139	1359	0.022	30	16	0.0	0.0	2.706	A
4 - Private Road	98	24	62	1199	0.082	98	107	0.1	0.1	3.268	A

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	107	27	156	998	0.107	107	40	0.1	0.1	4.039	A
2 - Barge Way	186	47	4	1122	0.166	186	259	0.2	0.2	3.847	A
3 - Access Road (N)	36	9	171	1334	0.027	36	20	0.0	0.0	2.772	A
4 - Private Road	120	30	76	1189	0.101	120	131	0.1	0.1	3.366	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	107	27	156	998	0.107	107	40	0.1	0.1	4.040	A
2 - Barge Way	186	47	4	1122	0.166	186	259	0.2	0.2	3.847	A
3 - Access Road (N)	36	9	171	1334	0.027	36	20	0.0	0.0	2.773	A
4 - Private Road	120	30	76	1189	0.101	120	131	0.1	0.1	3.366	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - Access (S)	87	22	128	1011	0.086	87	32	0.1	0.1	3.898	A

<b>2 - Barge Way</b>	152	38	4	1122	0.135	152	211	0.2	0.2	3.711	A
<b>3 - Access Road (N)</b>	30	7	139	1359	0.022	30	16	0.0	0.0	2.709	A
<b>4 - Private Road</b>	98	24	62	1199	0.082	98	107	0.1	0.1	3.268	A

**17:30 - 17:45**

<b>Arm</b>	<b>Total Demand (Veh/hr)</b>	<b>Junction Arrivals (Veh)</b>	<b>Circulating flow (Veh/hr)</b>	<b>Capacity (Veh/hr)</b>	<b>RFC</b>	<b>Throughput (Veh/hr)</b>	<b>Throughput (exit side) (Veh/hr)</b>	<b>Start queue (Veh)</b>	<b>End queue (Veh)</b>	<b>Delay (s)</b>	<b>LOS</b>
<b>1 - Access (S)</b>	73	18	107	1021	0.072	73	27	0.1	0.1	3.797	A
<b>2 - Barge Way</b>	127	32	3	1122	0.113	127	177	0.2	0.1	3.620	A
<b>3 - Access Road (N)</b>	25	6	117	1377	0.018	25	14	0.0	0.0	2.663	A
<b>4 - Private Road</b>	82	21	52	1207	0.068	82	90	0.1	0.1	3.203	A

# Junctions 9

## ARCADY 9 - Roundabout Module

Version: 9.0.2.5947  
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**Filename:** Dumbbell\_Sensitivity.j9

**Path:** P:\JNY9290 - Kemsley K5\Transport\Arcady\WKN DCO\North and South Dumbell Roundabouts

**Report generation date:** 18/03/2019 09:54:16

»2017, AM  
 »2017, PM  
 »2024, AM  
 »2024, PM  
 »2024 + Cumulative Development, AM  
 »2024 + Cumulative Development, PM  
 »2024 + K3 Operational, AM  
 »2024 + K3 Operational, PM  
 »2024 + WKN Operational, AM  
 »2024 + WKN Operational, PM  
 »2024 + K3 and WKN Operational, AM  
 »2024 + K3 and WKN Operational, PM  
 »2024 + K3 Operational + Cumulative Development, AM  
 »2024 + K3 Operational + Cumulative Development, PM  
 »2024 + WKN Operational + Cumulative Development, AM  
 »2024 + WKN Operational + Cumulative Development, PM  
 »2024 + K3 and WKN Operational + Cumulative Development, AM  
 »2024 + K3 and WKN Operational + Cumulative Development, PM  
 »2031, AM  
 »2031, PM  
 »2031 + Cumulative, AM  
 »2031 + Cumulative, PM  
 »2031 + K3 Operational, AM  
 »2031 + K3 Operational, PM  
 »2031 + WKN Operational, AM  
 »2031 + WKN Operational, PM  
 »2031 + K3 and WKN Operational, AM  
 »2031 + K3 and WKN Operational, PM  
 »2031 + K3 Operational + Cumulative Development, AM  
 »2031 + K3 Operational + Cumulative Development, PM  
 »2031 + WKN Operational + Cumulative Development, AM  
 »2031 + WKN Operational + Cumulative Development, PM  
 »2031 + K3 and WKN Operational + Cumulative Development, AM  
 »2031 + K3 and WKN Operational + Cumulative Development, PM

### Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
<b>2017</b>						
1 - North - 1 - A249 offslip (NB)	6.5	33.77	0.88	43.4	176.66	1.09
1 - North - 2 - Grovehurst Road	6.5	57.68	0.90	0.8	12.71	0.46
1 - North - 4 - B2005 - link	0.4	3.33	0.30	0.6	3.65	0.38
2 - South - 2 - B2005 - link	1.5	4.97	0.60	0.8	3.54	0.44
2 - South - 3 - A249 offslip (SB)	23.4	138.98	1.06	1.5	11.60	0.61
2 - South - 4 - Swale Way	14.6	90.60	0.98	362.8	1810.92	1.74
2 - South - 5 - Grovehurst Road	17.8	101.37	1.01	4.4	28.52	0.83



	2024					
1 - North - 1 - A249 offslip (NB)	72.4	298.81	1.15	97.1	441.17	1.24
1 - North - 2 - Grovehurst Road	39.1	320.92	1.16	0.9	13.73	0.49
1 - North - 4 - B2005 - link	0.4	3.31	0.29	0.6	3.64	0.37
2 - South - 2 - B2005 - link	2.0	6.18	0.67	0.8	3.82	0.46
2 - South - 3 - A249 offslip (SB)	133.6	1124.24	1.49	1.8	13.74	0.65
2 - South - 4 - Swale Way	76.2	438.92	1.20	764.7	3878.15	2.24
2 - South - 5 - Grovehurst Road	51.7	297.54	1.15	5.1	33.36	0.85
<b>2024 + Cumulative Development</b>						
1 - North - 1 - A249 offslip (NB)	94.3	406.38	1.20	153.9	693.91	1.34
1 - North - 2 - Grovehurst Road	46.7	403.85	1.19	1.1	14.86	0.52
1 - North - 4 - B2005 - link	0.4	3.27	0.28	0.6	3.64	0.38
2 - South - 2 - B2005 - link	2.0	6.06	0.66	0.9	3.87	0.46
2 - South - 3 - A249 offslip (SB)	146.9	1194.90	1.49	2.4	16.93	0.71
2 - South - 4 - Swale Way	98.7	585.20	1.26	835.6	4510.73	2.43
2 - South - 5 - Grovehurst Road	135.3	769.71	1.34	8.2	48.39	0.91
<b>2024 + K3 Operational</b>						
1 - North - 1 - A249 offslip (NB)	73.4	303.59	1.15	101.2	466.35	1.25
1 - North - 2 - Grovehurst Road	39.2	322.36	1.16	0.9	13.78	0.49
1 - North - 4 - B2005 - link	0.4	3.30	0.29	0.6	3.64	0.37
2 - South - 2 - B2005 - link	2.0	6.20	0.67	0.8	3.83	0.46
2 - South - 3 - A249 offslip (SB)	134.6	1135.42	1.49	1.8	13.85	0.65
2 - South - 4 - Swale Way	79.9	464.80	1.21	773.9	3942.99	2.25
2 - South - 5 - Grovehurst Road	52.2	303.51	1.15	5.2	33.48	0.85
<b>2024 + WKN Operational</b>						
1 - North - 1 - A249 offslip (NB)	80.0	339.22	1.17	105.4	487.94	1.26
1 - North - 2 - Grovehurst Road	39.8	329.05	1.16	0.9	13.83	0.49
1 - North - 4 - B2005 - link	0.4	3.29	0.29	0.6	3.63	0.37
2 - South - 2 - B2005 - link	2.0	6.26	0.67	0.8	3.87	0.46
2 - South - 3 - A249 offslip (SB)	137.4	1164.24	1.50	1.9	14.03	0.66
2 - South - 4 - Swale Way	86.8	503.84	1.23	796.9	4049.07	2.28
2 - South - 5 - Grovehurst Road	52.9	311.92	1.15	5.2	33.97	0.85
<b>2024 + K3 and WKN Operational</b>						
1 - North - 1 - A249 offslip (NB)	81.4	346.24	1.17	109.4	512.52	1.27
1 - North - 2 - Grovehurst Road	39.9	330.47	1.16	0.9	13.84	0.49
1 - North - 4 - B2005 - link	0.4	3.29	0.28	0.6	3.60	0.37
2 - South - 2 - B2005 - link	2.0	6.27	0.67	0.8	3.90	0.46
2 - South - 3 - A249 offslip (SB)	138.2	1171.97	1.50	1.9	14.11	0.66
2 - South - 4 - Swale Way	89.3	516.79	1.23	804.9	4103.27	2.29
2 - South - 5 - Grovehurst Road	53.2	314.07	1.15	5.3	34.20	0.86
<b>2024 + K3 Operational + Cumulative Development</b>						
1 - North - 1 - A249 offslip (NB)	95.2	410.42	1.20	156.1	702.26	1.35
1 - North - 2 - Grovehurst Road	46.7	404.76	1.19	1.1	14.88	0.52
1 - North - 4 - B2005 - link	0.4	3.26	0.28	0.6	3.63	0.38
2 - South - 2 - B2005 - link	2.0	6.06	0.67	0.9	3.89	0.47
2 - South - 3 - A249 offslip (SB)	147.6	1201.20	1.49	2.4	16.99	0.72
2 - South - 4 - Swale Way	101.3	598.86	1.27	842.4	4558.67	2.44
2 - South - 5 - Grovehurst Road	135.8	772.84	1.34	8.3	48.91	0.91
<b>2024 + WKN Operational + Cumulative Development</b>						
1 - North - 1 - A249 offslip (NB)	103.0	452.31	1.21	166.1	745.10	1.36
1 - North - 2 - Grovehurst Road	47.4	413.00	1.19	1.1	14.96	0.52
1 - North - 4 - B2005 - link	0.4	3.25	0.28	0.6	3.62	0.38
2 - South - 2 - B2005 - link	2.0	6.13	0.67	0.9	3.93	0.47
2 - South - 3 - A249 offslip (SB)	150.0	1225.89	1.50	2.5	17.30	0.72
2 - South - 4 - Swale Way	110.1	646.39	1.28	865.9	4675.35	2.47
2 - South - 5 - Grovehurst Road	137.6	786.06	1.34	8.4	49.71	0.92
<b>2024 + K3 and WKN Operational + Cumulative Development</b>						
1 - North - 1 - A249 offslip (NB)	104.3	457.43	1.22	168.5	754.23	1.37
1 - North - 2 - Grovehurst Road	47.5	415.27	1.19	1.1	14.98	0.52
1 - North - 4 - B2005 - link	0.4	3.25	0.28	0.6	3.62	0.38
2 - South - 2 - B2005 - link	2.0	6.14	0.67	0.9	3.93	0.47
2 - South - 3 - A249 offslip (SB)	151.0	1235.42	1.50	2.5	17.27	0.72
2 - South - 4 - Swale Way	115.3	676.35	1.29	873.9	4736.84	2.48
2 - South - 5 - Grovehurst Road	138.4	792.25	1.34	8.5	50.01	0.92

2031						
1 - North - 1 - A249 offslip (NB)	72.4	298.81	1.15	97.1	441.17	1.24
1 - North - 2 - Grovehurst Road	39.1	320.92	1.16	0.9	13.73	0.49
1 - North - 4 - B2005 - link	0.4	3.31	0.29	0.6	3.64	0.37
2 - South - 2 - B2005 - link	2.0	6.18	0.67	0.8	3.82	0.46
2 - South - 3 - A249 offslip (SB)	133.6	1124.24	1.49	1.8	13.74	0.65
2 - South - 4 - Swale Way	76.2	438.92	1.20	764.7	3878.15	2.24
2 - South - 5 - Grovehurst Road	51.7	297.54	1.15	5.1	33.36	0.85
2031 + Cumulative						
1 - North - 1 - A249 offslip (NB)	238.6	959.12	1.39	440.0	1867.33	1.70
1 - North - 2 - Grovehurst Road	335.2	2591.72	1.82	2.6	22.91	0.73
1 - North - 4 - B2005 - link	0.3	3.15	0.26	0.6	3.60	0.37
2 - South - 2 - B2005 - link	2.0	5.93	0.67	0.9	3.92	0.48
2 - South - 3 - A249 offslip (SB)	186.2	1488.03	1.53	4.1	26.35	0.81
2 - South - 4 - Swale Way	246.8	1617.59	1.55	1050.3	6009.28	2.93
2 - South - 5 - Grovehurst Road	256.8	1678.33	1.57	15.7	86.96	0.98
2031 + K3 Operational						
1 - North - 1 - A249 offslip (NB)	73.4	303.59	1.15	101.2	466.35	1.25
1 - North - 2 - Grovehurst Road	39.2	322.36	1.16	0.9	13.78	0.49
1 - North - 4 - B2005 - link	0.4	3.30	0.29	0.6	3.64	0.37
2 - South - 2 - B2005 - link	2.0	6.20	0.67	0.8	3.83	0.46
2 - South - 3 - A249 offslip (SB)	134.6	1135.42	1.49	1.8	13.85	0.65
2 - South - 4 - Swale Way	79.9	464.80	1.21	773.9	3942.99	2.25
2 - South - 5 - Grovehurst Road	52.2	303.51	1.15	5.2	33.48	0.85
2031 + WKN Operational						
1 - North - 1 - A249 offslip (NB)	80.0	339.22	1.17	105.4	487.94	1.26
1 - North - 2 - Grovehurst Road	39.8	329.05	1.16	0.9	13.83	0.49
1 - North - 4 - B2005 - link	0.4	3.29	0.29	0.6	3.63	0.37
2 - South - 2 - B2005 - link	2.0	6.26	0.67	0.8	3.87	0.46
2 - South - 3 - A249 offslip (SB)	137.4	1164.24	1.50	1.9	14.03	0.66
2 - South - 4 - Swale Way	86.8	503.84	1.23	796.9	4049.07	2.28
2 - South - 5 - Grovehurst Road	52.9	311.92	1.15	5.2	33.97	0.85
2031 + K3 and WKN Operational						
1 - North - 1 - A249 offslip (NB)	81.4	346.24	1.17	109.4	512.52	1.27
1 - North - 2 - Grovehurst Road	39.9	330.47	1.16	0.9	13.84	0.49
1 - North - 4 - B2005 - link	0.4	3.29	0.28	0.6	3.60	0.37
2 - South - 2 - B2005 - link	2.0	6.27	0.67	0.8	3.90	0.46
2 - South - 3 - A249 offslip (SB)	138.2	1171.97	1.50	1.9	14.11	0.66
2 - South - 4 - Swale Way	89.3	516.79	1.23	804.9	4103.27	2.29
2 - South - 5 - Grovehurst Road	53.2	314.07	1.15	5.3	34.20	0.86
2031 + K3 Operational + Cumulative Development						
1 - North - 1 - A249 offslip (NB)	241.8	973.55	1.39	442.7	1877.99	1.71
1 - North - 2 - Grovehurst Road	335.6	2596.30	1.82	2.6	22.96	0.73
1 - North - 4 - B2005 - link	0.3	3.15	0.26	0.6	3.60	0.37
2 - South - 2 - B2005 - link	2.0	5.93	0.67	0.9	3.93	0.48
2 - South - 3 - A249 offslip (SB)	186.7	1492.71	1.53	4.1	26.42	0.81
2 - South - 4 - Swale Way	250.3	1638.33	1.56	1052.3	6015.44	2.93
2 - South - 5 - Grovehurst Road	254.3	1657.85	1.57	15.7	87.19	0.98
2031 + WKN Operational + Cumulative Development						
1 - North - 1 - A249 offslip (NB)	255.2	1039.63	1.41	457.6	1944.49	1.72
1 - North - 2 - Grovehurst Road	337.8	2618.60	1.82	2.7	23.25	0.74
1 - North - 4 - B2005 - link	0.3	3.14	0.25	0.6	3.59	0.37
2 - South - 2 - B2005 - link	2.0	5.96	0.67	0.9	3.97	0.49
2 - South - 3 - A249 offslip (SB)	189.4	1518.75	1.54	4.2	27.07	0.82
2 - South - 4 - Swale Way	264.0	1729.00	1.58	1081.3	6201.40	2.98
2 - South - 5 - Grovehurst Road	255.7	1668.44	1.57	16.0	88.44	0.99
2031 + K3 and WKN Operational + Cumulative Development						
1 - North - 1 - A249 offslip (NB)	256.8	1046.20	1.41	461.8	1961.86	1.73
1 - North - 2 - Grovehurst Road	338.1	2621.17	1.82	2.7	23.31	0.74
1 - North - 4 - B2005 - link	0.3	3.14	0.25	0.6	3.59	0.37
2 - South - 2 - B2005 - link	2.0	5.99	0.67	0.9	3.99	0.49
2 - South - 3 - A249 offslip (SB)	189.4	1519.28	1.54	4.2	27.16	0.82
2 - South - 4 - Swale Way	263.4	1718.64	1.58	1083.4	6198.73	2.97
2 - South - 5 - Grovehurst Road	259.1	1696.85	1.58	16.1	88.97	0.99

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

## File summary

### File Description

Title	(untitled)
Location	
Site number	
Date	26/01/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR\Ben.Dance
Description	

## Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

## Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓			0.85	36.00	20.00

## Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D9	2024 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D10	2024 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D15	2024 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D16	2024 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓

<b>D21</b>	2031 + Cumulative	AM	ONE HOUR	07:15	08:45	15	✓
<b>D22</b>	2031 + Cumulative	PM	ONE HOUR	16:15	17:45	15	✓
<b>D23</b>	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
<b>D24</b>	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
<b>D25</b>	2031 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
<b>D26</b>	2031 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
<b>D27</b>	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
<b>D28</b>	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
<b>D29</b>	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
<b>D30</b>	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
<b>D31</b>	2031 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
<b>D32</b>	2031 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
<b>D33</b>	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
<b>D34</b>	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

### Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
<b>A1</b>	✓	100.000	100.000

# 2017, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	31.15	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	69.23	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Junction	Arm	Name	Description
1 - North	1	A249 offslip (NB)	
	2	Grovehurst Road	
	3	A249 onslip (NB)	
	4	B2005 - link	
2 - South	1	A249 onslip (SB)	
	2	B2005 - link	
	3	A249 offslip (SB)	
	4	Swale Way	
	5	Grovehurst Road	

### Roundabout Geometry

Junction	Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - North	1 - A249 offslip (NB)	7.90	8.10	5.8	14.0	37.0	32.0	
	2 - Grovehurst Road	3.71	6.74	20.2	10.1	37.0	45.0	
	3 - A249 onslip (NB)							✓
	4 - B2005 - link	3.75	7.64	13.4	11.9	37.0	41.0	
2 - South	1 - A249 onslip (SB)							✓
	2 - B2005 - link	3.66	6.17	14.7	27.2	36.3	36.0	
	3 - A249 offslip (SB)	8.03	8.04	0.1	10.1	39.2	32.0	
	4 - Swale Way	3.50	7.96	21.2	12.1	39.2	55.0	
	5 - Grovehurst Road	3.73	7.17	15.3	19.5	44.6	39.0	

### Slope / Intercept / Capacity

#### Arm Intercept Adjustments

Junction	Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - North	1 - A249 offslip (NB)	Direct		-1050
	2 - Grovehurst Road	Direct		-400
	3 - A249 onslip (NB)			
	4 - B2005 - link	None		
2 - South	1 - A249 onslip (SB)			
	2 - B2005 - link	Direct		500
	3 - A249 offslip (SB)	Direct		-730
	4 - Swale Way	Direct		-575

5 - Grovehurst Road	Direct	-550
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### Roundabout Slope and Intercept used in model

Junction	Arm	Final slope	Final intercept (PCU/hr)
1 - North	1 - A249 offslip (NB)	0.777	1330
	2 - Grovehurst Road	0.591	1170
	3 - A249 onslip (NB)		
	4 - B2005 - link	0.611	1622
2 - South	1 - A249 onslip (SB)		
	2 - B2005 - link	0.624	2088
	3 - A249 offslip (SB)	0.748	1572
	4 - Swale Way	0.597	1071
	5 - Grovehurst Road	0.616	1130

The slope and intercept shown above include any corrections and adjustments.

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	669	100.000
	2 - Grovehurst Road		ONE HOUR	✓	398	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	518	100.000
	4 - Swale Way		ONE HOUR	✓	544	100.000
	5 - Grovehurst Road		ONE HOUR	✓	573	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	627
		2 - Grovehurst Road	0	0	25	373
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	136	305	0

### Demand (Veh/hr)

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
2 - South	From					
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only

From	2 - B2005 - link	141	0	0	674	183
	3 - A249 offslip (SB)	1	18	0	325	174
	4 - Swale Way	285	194	0	0	65
	5 - Grovehurst Road	206	233	0	134	0

## Vehicle Mix

### Heavy Vehicle Percentages

1 - North

From	To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
	1 - A249 offslip (NB)	0	7	0	14
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	3	5	0	

### Heavy Vehicle Percentages

2 - South

From	To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	13	6
	3 - A249 offslip (SB)	0	6	0	5	4
	4 - Swale Way	32	7	0	0	6
5 - Grovehurst Road	1	2	0	3	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.88	33.77	6.5	35.5	D	614	921
	2 - Grovehurst Road	0.90	57.68	6.5	33.7	F	365	548
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.30	3.33	0.4	1.8	A	407	611
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.60	4.97	1.5	2.0	A	917	1375
	3 - A249 offslip (SB)	1.06	138.98	23.4	62.7	F	475	713
	4 - Swale Way	0.98	90.60	14.6	55.6	F	499	749
	5 - Grovehurst Road	1.01	101.37	17.8	60.1	F	526	789

### Main Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	504	126	330	936	0.538	499	0	0.0	1.1	8.161	A
	2 - Grovehurst Road	300	75	696	690	0.434	297	133	0.0	0.8	9.080	A
	3 - A249 onslip (NB)			746				247				
	4 - B2005 - link	331	83	0	1554	0.213	330	746	0.0	0.3	2.937	A
2 - South	1 - A249 onslip (SB)			431				471				
	2 - B2005 - link	746	186	100	1842	0.405	743	331	0.0	0.7	3.267	A
	3 - A249 offslip (SB)	390	97	843	845	0.462	387	0	0.0	0.8	7.800	A
	4 - Swale Way	410	102	385	694	0.590	404	844	0.0	1.4	12.182	B
	5 - Grovehurst Road	431	108	475	775	0.557	426	314	0.0	1.2	10.202	B

#### 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	601	150	396	889	0.677	598	0	1.1	2.0	12.230	B
	2 - Grovehurst Road	358	89	834	602	0.594	355	160	0.8	1.4	14.410	B
	3 - A249 onslip (NB)			893				296				
	4 - B2005 - link	396	99	0	1554	0.255	396	893	0.3	0.3	3.106	A
2 - South	1 - A249 onslip (SB)			515				564				
	2 - B2005 - link	893	223	119	1831	0.488	892	396	0.7	0.9	3.833	A
	3 - A249 offslip (SB)	466	116	1012	713	0.653	462	0	0.8	1.8	14.096	B
	4 - Swale Way	489	122	462	655	0.747	484	1012	1.4	2.7	20.417	C
	5 - Grovehurst Road	515	129	569	709	0.727	510	377	1.2	2.5	17.694	C

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	737	184	462	841	0.875	722	0	2.0	5.7	27.311	D
	2 - Grovehurst Road	438	110	996	499	0.878	423	188	1.4	5.2	41.282	E
	3 - A249 onslip (NB)			1073				346				
	4 - B2005 - link	462	116	0	1554	0.297	462	1073	0.3	0.4	3.295	A
2 - South	1 - A249 onslip (SB)			601				664				
	2 - B2005 - link	1074	268	139	1819	0.590	1072	462	0.9	1.4	4.805	A
	3 - A249 offslip (SB)	570	143	1211	558	1.022	524	0	1.8	13.3	69.759	F
	4 - Swale Way	599	150	543	613	0.978	568	1192	2.7	10.5	57.631	F
	5 - Grovehurst Road	631	158	671	637	0.990	594	441	2.5	11.6	58.638	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	737	184	472	834	0.883	733	0	5.7	6.5	33.775	D
	2 - Grovehurst Road	438	110	1014	488	0.899	433	192	5.2	6.5	57.680	F
	3 - A249 onslip (NB)			1093				354				
	4 - B2005 - link	473	118	0	1554	0.304	472	1093	0.4	0.4	3.327	A
2 - South	1 - A249 onslip (SB)			614				679				
	2 - B2005 - link	1093	273	142	1817	0.602	1093	473	1.4	1.5	4.966	A
	3 - A249 offslip (SB)	570	143	1235	540	1.057	530	0	13.3	23.4	138.977	F
	4 - Swale Way	599	150	552	608	0.985	583	1212	10.5	14.6	90.596	F
	5 - Grovehurst Road	631	158	687	626	1.008	606	448	11.6	17.8	101.371	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	601	150	441	856	0.702	617	0	6.5	2.5	15.965	C
	2 - Grovehurst Road	358	89	884	572	0.626	377	175	6.5	1.8	20.107	C
	3 - A249 onslip (NB)			932				329				
	4 - B2005 - link	441	110	0	1554	0.284	441	932	0.4	0.4	3.235	A
2 - South	1 - A249 onslip (SB)			575				617				
	2 - B2005 - link	931	233	134	1822	0.511	933	441	1.5	1.1	4.057	A
	3 - A249 offslip (SB)	466	116	1067	671	0.694	550	0	23.4	2.5	46.022	E
	4 - Swale Way	489	122	508	631	0.775	532	1109	14.6	3.9	44.947	E
	5 - Grovehurst Road	515	129	620	672	0.767	571	419	17.8	3.7	47.063	E

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	504	126	343	926	0.544	509	0	2.5	1.2	8.722	A
	2 - Grovehurst Road	300	75	714	679	0.441	303	138	1.8	0.8	9.685	A
	3 - A249 onslip (NB)			761				256				
	4 - B2005 - link	342	86	0	1554	0.220	343	761	0.4	0.3	2.972	A
2 - South	1 - A249 onslip (SB)			446				487				
	2 - B2005 - link	761	190	103	1840	0.414	763	343	1.1	0.7	3.344	A
	3 - A249 offslip (SB)	390	97	866	827	0.471	396	0	2.5	0.9	8.474	A
	4 - Swale Way	410	102	395	689	0.594	419	867	3.9	1.5	13.777	B
	5 - Grovehurst Road	431	108	491	763	0.565	441	323	3.7	1.3	11.494	B



## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.14	0.55	1.03	1.19	1.19			N/A	N/A
	2 - Grovehurst Road	0.75	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.68	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.84	0.14	0.92	1.15	1.15			N/A	N/A
	4 - Swale Way	1.39	0.56	1.29	1.80	1.94			N/A	N/A
	5 - Grovehurst Road	1.22	0.51	1.16	1.66	1.87			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.01	0.06	0.93	5.02	7.46			N/A	N/A
	2 - Grovehurst Road	1.41	0.06	0.80	3.23	4.68			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.95	0.07	0.85	1.63	1.98			N/A	N/A
	3 - A249 offslip (SB)	1.80	0.05	0.47	4.78	7.69			N/A	N/A
	4 - Swale Way	2.72	0.08	1.32	6.82	9.83			N/A	N/A
	5 - Grovehurst Road	2.49	0.06	1.05	6.46	9.62			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	5.65	0.05	0.46	16.04	29.04			N/A	N/A
	2 - Grovehurst Road	5.18	0.06	1.03	14.81	23.94			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.42	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.42	0.03	0.26	1.42	1.42			N/A	N/A
	3 - A249 offslip (SB)	13.27	0.85	9.04	29.34	37.93			N/A	N/A
	4 - Swale Way	10.54	0.22	5.42	26.35	36.20			N/A	N/A
	5 - Grovehurst Road	11.63	0.31	6.58	28.19	38.04			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	6.47	0.04	0.37	14.81	35.52			N/A	N/A
	2 - Grovehurst Road	6.53	0.05	0.48	18.63	33.69			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.03	0.31	1.36	1.78			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.49	0.03	0.26	1.49	1.49			N/A	N/A
	3 - A249 offslip (SB)	23.45	1.82	17.53	49.58	62.70			N/A	N/A
	4 - Swale Way	14.62	0.17	6.14	39.00	55.56			N/A	N/A
	5 - Grovehurst Road	17.80	0.36	9.87	44.18	60.08			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.48	0.05	0.47	6.83	11.33			N/A	N/A
	2 - Grovehurst Road	1.76	0.04	0.42	4.72	8.06			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
	1 - A249 onslip (SB)									
	2 - B2005 - link	1.06	0.52	1.05	1.08	1.55			N/A	N/A

2 - South	3 - A249 offslip (SB)	2.48	0.04	0.39	6.59	12.70			N/A	N/A
	4 - Swale Way	3.92	0.05	0.49	11.12	18.86			N/A	N/A
	5 - Grovehurst Road	3.73	0.05	0.49	10.58	17.85			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.22	0.03	0.32	2.37	6.22			N/A	N/A
	2 - Grovehurst Road	0.80	0.03	0.30	1.48	3.80			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.71	0.09	0.82	1.39	1.46			N/A	N/A
	3 - A249 offslip (SB)	0.91	0.03	0.27	0.91	2.18			N/A	N/A
	4 - Swale Way	1.52	0.03	0.30	1.77	7.10			N/A	N/A
	5 - Grovehurst Road	1.34	0.03	0.29	1.45	5.64			N/A	N/A

# 2017, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	91.44	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	672.02	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	749	100.000
	2 - Grovehurst Road		ONE HOUR	✓	222	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	431	100.000
	4 - Swale Way		ONE HOUR	✓	989	100.000
	5 - Grovehurst Road		ONE HOUR	✓	528	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	569
		2 - Grovehurst Road	0	0	27	195
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	234	470	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	396	322
	3 - A249 offslip (SB)	1	27	0	187	216
	4 - Swale Way	509	351	0	0	129
	5 - Grovehurst Road	110	318	0	100	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	16
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	22	1
	3 - A249 offslip (SB)	0	11	0	7	4
	4 - Swale Way	14	2	0	0	2
	5 - Grovehurst Road	0	2	0	3	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.09	176.66	43.4	91.6	F	687	1031
	2 - Grovehurst Road	0.46	12.71	0.8	3.7	B	204	306
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.38	3.65	0.6	2.0	A	554	832
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.44	3.54	0.8	1.7	A	701	1051
	3 - A249 offslip (SB)	0.61	11.60	1.5	4.0	B	395	593
	4 - Swale Way	1.74	1810.92	362.8	184.9	F	908	1361
	5 - Grovehurst Road	0.83	28.52	4.4	22.2	D	485	727

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	564	141	500	831	0.679	556	0	0.0	2.0	12.739	B
	2 - Grovehurst Road	167	42	756	671	0.249	166	300	0.0	0.3	7.104	A

	3 - A249 onslip (NB)			568				354				
	4 - B2005 - link	502	125	0	1591	0.315	500	568	0.0	0.5	3.295	A
2 - South	1 - A249 onslip (SB)			574				467				
	2 - B2005 - link	569	142	74	1822	0.312	567	500	0.0	0.5	2.865	A
	3 - A249 offslip (SB)	324	81	641	984	0.330	323	0	0.0	0.5	5.431	A
	4 - Swale Way	745	186	454	733	1.015	686	510	0.0	14.6	53.461	F
	5 - Grovehurst Road	398	99	649	683	0.582	392	491	0.0	1.3	12.160	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	673	168	551	795	0.847	663	0	2.0	4.7	25.368	D
	2 - Grovehurst Road	200	50	871	595	0.335	199	343	0.3	0.5	9.067	A
	3 - A249 onslip (NB)			678				392				
	4 - B2005 - link	552	138	0	1591	0.347	551	678	0.5	0.5	3.464	A
2 - South	1 - A249 onslip (SB)			639				487				
	2 - B2005 - link	679	170	89	1813	0.374	678	550	0.5	0.6	3.170	A
	3 - A249 offslip (SB)	387	97	768	884	0.438	386	0	0.5	0.8	7.211	A
	4 - Swale Way	889	222	544	683	1.302	681	610	14.6	66.7	233.318	F
	5 - Grovehurst Road	475	119	654	680	0.698	471	570	1.3	2.2	16.976	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	825	206	600	760	1.085	741	0	4.7	25.5	89.210	F
	2 - Grovehurst Road	244	61	964	535	0.457	243	378	0.5	0.8	12.288	B
	3 - A249 onslip (NB)			777				430				
	4 - B2005 - link	601	150	0	1591	0.378	600	777	0.5	0.6	3.635	A
2 - South	1 - A249 onslip (SB)			707				487				
	2 - B2005 - link	776	194	109	1802	0.431	775	598	0.6	0.8	3.504	A
	3 - A249 offslip (SB)	475	119	884	794	0.598	472	0	0.8	1.4	11.098	B
	4 - Swale Way	1089	272	638	629	1.732	629	717	66.7	181.8	722.148	F
	5 - Grovehurst Road	581	145	620	703	0.827	573	647	2.2	4.1	26.309	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	825	206	604	758	1.088	753	0	25.5	43.4	176.655	F
	2 - Grovehurst Road	244	61	975	527	0.463	244	382	0.8	0.8	12.706	B
	3 - A249 onslip (NB)			787				433				
	4 - B2005 - link	604	151	0	1591	0.380	604	787	0.6	0.6	3.647	A
2 - South	1 - A249 onslip (SB)			711				487				
	2 - B2005 - link	786	197	110	1801	0.436	786	601	0.8	0.8	3.544	A
	3 - A249 offslip (SB)	475	119	896	784	0.605	474	0	1.4	1.5	11.604	B
	4 - Swale Way	1089	272	645	625	1.742	625	725	181.8	297.7	1388.097	F
	5 - Grovehurst Road	581	145	618	704	0.826	580	652	4.1	4.4	28.517	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	673	168	551	795	0.847	777	0	43.4	17.5	146.187	F
	2 - Grovehurst Road	200	50	958	536	0.372	201	370	0.8	0.6	10.755	B
	3 - A249 onslip (NB)			767				392				
	4 - B2005 - link	551	138	0	1591	0.346	551	767	0.6	0.5	3.462	A
2 - South	1 - A249 onslip (SB)			640				482				
	2 - B2005 - link	770	193	91	1812	0.425	770	548	0.8	0.7	3.458	A
	3 - A249 offslip (SB)	387	97	862	810	0.478	390	0	1.5	0.9	8.613	A
	4 - Swale Way	889	222	590	657	1.353	657	662	297.7	355.7	1722.510	F
	5 - Grovehurst Road	475	119	639	690	0.688	483	607	4.4	2.3	18.004	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	564	141	518	818	0.689	624	0	17.5	2.4	24.011	C

1 - North	2 - Grovehurst Road	167	42	820	628	0.266	168	322	0.6	0.4	7.836	A
	3 - A249 onslip (NB)			622				366				
	4 - B2005 - link	518	129	0	1591	0.326	518	622	0.5	0.5	3.358	A
2 - South	1 - A249 onslip (SB)			592				488				
	2 - B2005 - link	625	156	76	1821	0.343	625	516	0.7	0.5	3.012	A
	3 - A249 offslip (SB)	324	81	701	936	0.347	326	0	0.9	0.5	5.916	A
	4 - Swale Way	745	186	484	717	1.039	716	543	355.7	362.8	1810.923	F
	5 - Grovehurst Road	398	99	679	664	0.599	401	522	2.3	1.5	13.846	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.02	0.27	1.23	3.54	4.41			N/A	N/A
	2 - Grovehurst Road	0.33	0.00	0.00	0.33	0.33			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.46	0.00	0.00	0.46	0.46			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
	3 - A249 offslip (SB)	0.49	0.00	0.00	0.49	0.49			N/A	N/A
	4 - Swale Way	14.57	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.35	0.55	1.00	1.40	1.45			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.71	0.11	1.83	12.00	17.01			N/A	N/A
	2 - Grovehurst Road	0.50	0.00	0.00	0.50	0.50			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.60	0.12	0.87	1.37	1.44			N/A	N/A
	3 - A249 offslip (SB)	0.77	0.09	0.84	1.02	1.02			N/A	N/A
	4 - Swale Way	66.71	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.19	0.09	1.38	4.89	6.73			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	25.53	4.99	21.53	47.32	57.09			N/A	N/A
	2 - Grovehurst Road	0.82	0.03	0.26	0.82	0.82			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.03	0.25	0.60	0.60			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.75	0.03	0.25	0.75	0.75			N/A	N/A
	3 - A249 offslip (SB)	1.44	0.03	0.27	1.44	2.10			N/A	N/A
	4 - Swale Way	181.76	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.15	0.04	0.39	10.86	22.23			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	43.45	11.01	38.08	77.14	91.56			N/A	N/A
	2 - Grovehurst Road	0.85	0.03	0.29	1.24	3.67			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.03	0.28	0.61	2.00			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.77	0.03	0.27	0.77	1.69			N/A	N/A
	3 - A249 offslip (SB)	1.50	0.03	0.28	1.50	3.98			N/A	N/A
	4 - Swale Way	297.70	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.38	0.03	0.32	5.99	21.57			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	17.50	1.14	12.85	37.15	47.16			N/A	N/A
	2 - Grovehurst Road	0.60	0.10	0.82	1.36	1.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.74	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.93	0.13	0.95	1.25	1.66			N/A	N/A
	4 - Swale Way	355.73	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.32	0.04	0.42	6.36	11.31			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.35	0.03	0.30	2.35	10.64			N/A	N/A
	2 - Grovehurst Road	0.37	0.03	0.30	0.86	1.18			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.49	0.00	0.00	0.49	0.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.54	0.04	0.43	1.35	1.48			N/A	N/A
	4 - Swale Way	362.76	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.55	0.04	0.37	3.93	7.62			N/A	N/A

# 2024, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	230.50	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	363.86	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	861	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	689	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	819
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only



	4 - B2005 - link	0	147	327	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	141	0	0	908	183
	3 - A249 offslip (SB)	1	18	0	377	174
	4 - Swale Way	386	226	0	0	77
	5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	7	0	18
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	7	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	16	6
	3 - A249 offslip (SB)	0	6	0	9	4
	4 - Swale Way	38	10	0	0	9
	5 - Grovehurst Road	1	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.15	298.81	72.4	124.5	F	790	1185
	2 - Grovehurst Road	1.16	320.92	39.1	75.6	F	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.29	3.31	0.4	1.7	A	420	629
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.18	2.0	4.8	A	1113	1669
	3 - A249 offslip (SB)	1.49	1124.24	133.6	200.0	F	523	785
	4 - Swale Way	1.20	438.92	76.2	133.4	F	632	948
	5 - Grovehurst Road	1.15	297.54	51.7	95.0	F	561	841

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	648	162	350	887	0.731	638	0	0.0	2.6	13.956	B
	2 - Grovehurst Road	331	83	848	575	0.576	326	140	0.0	1.3	14.189	B

	3 - A249 onslip (NB)			914				260				
	4 - B2005 - link	351	88	0	1530	0.230	350	914	0.0	0.3	3.049	A
2 - South	1 - A249 onslip (SB)			479				541				
	2 - B2005 - link	917	229	127	1780	0.515	912	352	0.0	1.1	4.130	A
	3 - A249 offslip (SB)	429	107	1040	656	0.654	422	0	0.0	1.8	14.961	B
	4 - Swale Way	519	130	383	665	0.781	506	1079	0.0	3.2	21.269	C
	5 - Grovehurst Road	460	115	568	688	0.669	452	321	0.0	1.9	14.830	B

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	774	194	411	844	0.917	754	0	2.6	7.6	34.112	D
	2 - Grovehurst Road	396	99	1001	475	0.834	385	164	1.3	4.0	36.398	E
	3 - A249 onslip (NB)			1080				305				
	4 - B2005 - link	411	103	0	1530	0.269	411	1080	0.3	0.4	3.217	A
2 - South	1 - A249 onslip (SB)			562				635				
	2 - B2005 - link	1083	271	150	1767	0.613	1081	412	1.1	1.6	5.233	A
	3 - A249 offslip (SB)	512	128	1231	507	1.010	473	0	1.8	11.7	70.796	F
	4 - Swale Way	619	155	444	634	0.977	589	1259	3.2	10.7	57.599	F
	5 - Grovehurst Road	549	137	663	618	0.888	534	371	1.9	5.8	37.145	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	948	237	438	825	1.149	816	0	7.6	40.7	120.890	F
	2 - Grovehurst Road	484	121	1078	423	1.144	412	176	4.0	22.1	136.026	F
	3 - A249 onslip (NB)			1165				326				
	4 - B2005 - link	439	110	0	1530	0.287	438	1165	0.4	0.4	3.298	A
2 - South	1 - A249 onslip (SB)			602				680				
	2 - B2005 - link	1168	292	163	1759	0.664	1166	439	1.6	1.9	6.054	A
	3 - A249 offslip (SB)	628	157	1329	431	1.456	430	0	11.7	61.2	325.375	F
	4 - Swale Way	759	190	452	630	1.203	626	1306	10.7	43.9	173.251	F
	5 - Grovehurst Road	673	168	704	589	1.143	578	374	5.8	29.4	127.531	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	948	237	441	823	1.152	821	0	40.7	72.4	258.356	F
	2 - Grovehurst Road	484	121	1085	419	1.157	416	177	22.1	39.1	281.933	F
	3 - A249 onslip (NB)			1174				328				
	4 - B2005 - link	441	110	0	1530	0.289	441	1174	0.4	0.4	3.307	A
2 - South	1 - A249 onslip (SB)			607				685				
	2 - B2005 - link	1177	294	164	1759	0.669	1176	442	1.9	2.0	6.182	A
	3 - A249 offslip (SB)	628	157	1341	422	1.487	422	0	61.2	112.7	749.218	F
	4 - Swale Way	759	190	452	630	1.203	630	1310	43.9	76.2	355.285	F
	5 - Grovehurst Road	673	168	708	585	1.149	583	374	29.4	51.7	263.771	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	774	194	438	825	0.938	814	0	72.4	62.4	298.814	F
	2 - Grovehurst Road	396	99	1076	425	0.931	414	175	39.1	34.5	320.919	F
	3 - A249 onslip (NB)			1165				325				
	4 - B2005 - link	438	109	0	1530	0.286	438	1165	0.4	0.4	3.296	A
2 - South	1 - A249 onslip (SB)			602				678				
	2 - B2005 - link	1168	292	163	1759	0.664	1168	439	2.0	2.0	6.093	A
	3 - A249 offslip (SB)	512	128	1331	429	1.194	429	0	112.7	133.5	1043.421	F
	4 - Swale Way	619	155	452	630	0.983	621	1308	76.2	75.8	438.925	F
	5 - Grovehurst Road	549	137	699	592	0.928	581	374	51.7	43.9	297.536	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	648	162	437	826	0.785	813	0	62.4	21.3	190.054	F

1 - North	2 - Grovehurst Road	331	83	1075	426	0.778	414	175	34.5	13.8	217.566	F
	3 - A249 onslip (NB)			1163				325				
	4 - B2005 - link	437	109	0	1530	0.286	437	1163	0.4	0.4	3.294	A
2 - South	1 - A249 onslip (SB)			601				678				
	2 - B2005 - link	1166	292	163	1759	0.663	1166	438	2.0	2.0	6.069	A
	3 - A249 offslip (SB)	429	107	1329	431	0.995	429	0	133.5	133.6	1124.245	F
	4 - Swale Way	519	130	452	631	0.823	622	1306	75.8	49.9	365.912	F
	5 - Grovehurst Road	460	115	701	591	0.778	578	374	43.9	14.4	188.251	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.56	0.08	1.39	6.17	8.72			N/A	N/A
	2 - Grovehurst Road	1.31	0.05	0.47	3.26	5.06			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.05	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.80	0.03	0.25	1.80	1.80			N/A	N/A
	4 - Swale Way	3.19	0.05	0.48	8.95	15.16			N/A	N/A
	5 - Grovehurst Road	1.92	0.07	1.05	4.61	6.61			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	7.56	0.18	3.70	18.85	26.00			N/A	N/A
	2 - Grovehurst Road	4.02	0.08	1.00	10.77	15.94			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.37	0.00	0.00	0.37	0.37			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.56	0.07	1.00	3.48	4.84			N/A	N/A
	3 - A249 offslip (SB)	11.71	0.03	0.29	11.71	30.43			N/A	N/A
	4 - Swale Way	10.72	0.27	5.88	26.23	35.61			N/A	N/A
	5 - Grovehurst Road	5.78	0.13	2.53	14.61	20.46			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	40.67	14.36	37.17	66.11	76.36			N/A	N/A
	2 - Grovehurst Road	22.06	5.24	19.05	39.06	46.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.94	0.03	0.27	1.94	1.94			N/A	N/A
	3 - A249 offslip (SB)	61.23	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	43.93	16.53	40.47	70.12	80.52			N/A	N/A
	5 - Grovehurst Road	29.38	8.53	26.13	50.05	58.74			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	72.41	32.12	68.20	110.15	124.52			N/A	N/A
	2 - Grovehurst Road	39.11	12.75	35.37	64.98	75.56			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.30	1.27	1.71			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.03	0.26	1.99	1.99			N/A	N/A
	3 - A249 offslip (SB)	112.67	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	76.20	37.35	72.55	111.74	124.92			N/A	N/A
	5 - Grovehurst Road	51.72	19.46	47.71	82.76	95.05			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	62.40	22.68	57.39	101.18	116.63			N/A	N/A
	2 - Grovehurst Road	34.48	7.79	29.72	62.55	74.83			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.20	1.13	3.63	4.61			N/A	N/A
	3 - A249 offslip (SB)	133.50	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	75.85	32.04	71.07	117.42	133.42			N/A	N/A
	5 - Grovehurst Road	43.88	12.34	38.99	76.00	89.52			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	21.30	2.78	17.01	41.96	51.74			N/A	N/A
	2 - Grovehurst Road	13.85	0.88	9.44	30.72	39.75			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.98	0.52	1.31	3.04	3.78			N/A	N/A
	3 - A249 offslip (SB)	133.58	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	49.93	11.34	43.18	91.08	109.02			N/A	N/A
	5 - Grovehurst Road	14.44	0.97	9.96	31.84	41.11			N/A	N/A

# 2024, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	239.33	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1633.71	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	825	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	443	100.000
	4 - Swale Way		ONE HOUR	✓	1276	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	645
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	262	522	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	477	322
	3 - A249 offslip (SB)	1	27	0	199	216
	4 - Swale Way	685	432	0	0	159
	5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	21
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	4	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	28	1
	3 - A249 offslip (SB)	0	11	0	8	4
	4 - Swale Way	18	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.24	441.17	97.1	150.6	F	757	1136
	2 - Grovehurst Road	0.49	13.73	0.9	3.5	B	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.64	0.6	2.2	A	541	811
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.46	3.82	0.8	1.5	A	748	1122
	3 - A249 offslip (SB)	0.65	13.74	1.8	5.6	B	407	610
	4 - Swale Way	2.24	3878.15	764.7	180.1	F	1171	1756
	5 - Grovehurst Road	0.85	33.36	5.1	27.5	D	490	735

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	621	155	494	803	0.774	609	0	0.0	3.1	17.560	C
	2 - Grovehurst Road	171	43	804	622	0.275	169	298	0.0	0.4	7.930	A

	3 - A249 onslip (NB)			625				349				
	4 - B2005 - link	495	124	0	1580	0.314	494	625	0.0	0.5	3.307	A
2 - South	1 - A249 onslip (SB)			573				492				
	2 - B2005 - link	624	156	79	1751	0.357	622	495	0.0	0.6	3.185	A
	3 - A249 offslip (SB)	334	83	701	913	0.365	331	0	0.0	0.6	6.167	A
	4 - Swale Way	961	240	452	716	1.342	705	580	0.0	64.0	175.209	F
	5 - Grovehurst Road	402	101	669	657	0.612	396	488	0.0	1.5	13.495	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	742	185	535	774	0.958	714	0	3.1	10.1	45.822	E
	2 - Grovehurst Road	204	51	914	547	0.373	203	335	0.4	0.6	10.456	B
	3 - A249 onslip (NB)			737				380				
	4 - B2005 - link	535	134	0	1580	0.339	535	737	0.5	0.5	3.444	A
2 - South	1 - A249 onslip (SB)			629				495				
	2 - B2005 - link	736	184	95	1742	0.422	735	534	0.6	0.7	3.575	A
	3 - A249 offslip (SB)	398	100	830	808	0.493	397	0	0.6	1.0	8.710	A
	4 - Swale Way	1147	287	537	669	1.715	669	690	64.0	183.6	695.260	F
	5 - Grovehurst Road	480	120	647	672	0.714	477	558	1.5	2.3	18.086	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	908	227	588	739	1.230	734	0	10.1	53.6	170.395	F
	2 - Grovehurst Road	250	62	965	514	0.486	249	357	0.6	0.9	13.484	B
	3 - A249 onslip (NB)			793				421				
	4 - B2005 - link	588	147	0	1580	0.372	588	793	0.5	0.6	3.626	A
2 - South	1 - A249 onslip (SB)			702				497				
	2 - B2005 - link	787	197	115	1730	0.455	787	587	0.7	0.8	3.811	A
	3 - A249 offslip (SB)	488	122	901	752	0.649	484	0	1.0	1.8	13.309	B
	4 - Swale Way	1405	351	607	629	2.232	629	779	183.6	377.4	1610.749	F
	5 - Grovehurst Road	588	147	621	690	0.852	578	616	2.3	4.8	29.738	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	908	227	592	735	1.235	735	0	53.6	97.1	374.287	F
	2 - Grovehurst Road	250	62	969	512	0.488	250	358	0.9	0.9	13.729	B
	3 - A249 onslip (NB)			794				424				
	4 - B2005 - link	592	148	0	1580	0.375	592	794	0.6	0.6	3.643	A
2 - South	1 - A249 onslip (SB)			708				498				
	2 - B2005 - link	788	197	116	1730	0.456	788	592	0.8	0.8	3.823	A
	3 - A249 offslip (SB)	488	122	905	749	0.651	488	0	1.8	1.8	13.744	B
	4 - Swale Way	1405	351	610	628	2.237	628	783	377.4	571.6	2619.250	F
	5 - Grovehurst Road	588	147	620	691	0.851	586	618	4.8	5.1	33.356	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	742	185	540	771	0.962	763	0	97.1	91.7	441.169	F
	2 - Grovehurst Road	204	51	956	517	0.394	205	347	0.9	0.7	11.575	B
	3 - A249 onslip (NB)			777				384				
	4 - B2005 - link	540	135	0	1580	0.342	540	777	0.6	0.5	3.463	A
2 - South	1 - A249 onslip (SB)			636				494				
	2 - B2005 - link	777	194	97	1740	0.447	777	539	0.8	0.8	3.738	A
	3 - A249 offslip (SB)	398	100	875	772	0.516	401	0	1.8	1.1	9.788	A
	4 - Swale Way	1147	287	557	657	1.745	657	718	571.6	694.0	3393.157	F
	5 - Grovehurst Road	480	120	640	677	0.709	490	575	5.1	2.6	20.163	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	621	155	493	803	0.773	795	0	91.7	48.3	319.637	F

1 - North	2 - Grovehurst Road	171	43	949	519	0.329	172	338	0.7	0.5	10.382	B
	3 - A249 onslip (NB)			772				349				
	4 - B2005 - link	493	123	0	1580	0.312	493	772	0.5	0.5	3.313	A
2 - South	1 - A249 onslip (SB)			572				487				
	2 - B2005 - link	777	194	81	1750	0.444	777	492	0.8	0.8	3.701	A
	3 - A249 offslip (SB)	334	83	858	784	0.425	335	0	1.1	0.8	8.036	A
	4 - Swale Way	961	240	521	678	1.417	678	672	694.0	764.7	3878.150	F
	5 - Grovehurst Road	402	101	654	668	0.602	406	545	2.6	1.6	13.957	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.13	0.06	1.01	8.53	13.10			N/A	N/A
	2 - Grovehurst Road	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.55	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.57	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	63.98	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.52	1.05	1.50	1.90	1.95			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.06	0.27	5.54	24.49	33.18			N/A	N/A
	2 - Grovehurst Road	0.59	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.73	0.20	0.93	1.39	1.44			N/A	N/A
	3 - A249 offslip (SB)	0.95	0.09	0.91	1.52	1.86			N/A	N/A
	4 - Swale Way	183.59	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.35	0.09	1.42	5.37	7.41			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	53.62	24.35	50.53	80.58	90.81			N/A	N/A
	2 - Grovehurst Road	0.92	0.03	0.26	0.92	0.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.25	0.59	0.59			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.83	0.03	0.25	0.83	0.83			N/A	N/A
	3 - A249 offslip (SB)	1.78	0.03	0.28	1.78	5.64			N/A	N/A
	4 - Swale Way	377.44	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.77	0.04	0.44	13.24	24.65			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	97.05	54.43	93.72	134.93	148.46			N/A	N/A
	2 - Grovehurst Road	0.94	0.03	0.28	0.94	3.51			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.03	0.28	0.63	2.18			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.83	0.03	0.26	0.83	0.94			N/A	N/A
	3 - A249 offslip (SB)	1.82	0.03	0.28	1.82	4.50			N/A	N/A
	4 - Swale Way	571.64	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.14	0.03	0.34	9.82	27.52			N/A	N/A



## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	91.68	44.94	87.37	134.67	150.60			N/A	N/A
	2 - Grovehurst Road	0.66	0.08	0.79	1.37	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.09	0.08	0.91	1.93	2.67			N/A	N/A
	4 - Swale Way	694.04	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.59	0.04	0.43	7.12	12.67			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	48.31	15.65	43.74	80.71	93.96			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.44	1.27	1.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.46	0.00	0.00	0.46	0.46			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.80	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.75	0.05	0.48	1.45	1.96			N/A	N/A
	4 - Swale Way	764.68	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.57	0.03	0.35	3.81	8.01			N/A	N/A

# 2024 + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	307.66	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	509.94	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	904	100.000
	2 - Grovehurst Road		ONE HOUR	✓	446	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	593	100.000
	4 - Swale Way		ONE HOUR	✓	690	100.000
	5 - Grovehurst Road		ONE HOUR	✓	736	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From				
	1 - A249 offslip (NB)	0	45	0	859
	2 - Grovehurst Road	0	0	25	421
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	151	366	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	144	0	0	908	225
	3 - A249 offslip (SB)	1	18	0	377	197
	4 - Swale Way	387	226	0	0	77
	5 - Grovehurst Road	287	277	0	172	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	13	0	17
	2 - Grovehurst Road	0	0	8	4
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	6	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	16	6
	3 - A249 offslip (SB)	0	6	0	9	4
	4 - Swale Way	39	10	0	0	9
	5 - Grovehurst Road	1	1	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.20	406.38	94.3	156.3	F	830	1244
	2 - Grovehurst Road	1.19	403.85	46.7	87.3	F	409	614
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.28	3.27	0.4	1.7	A	426	639
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.66	6.06	2.0	5.0	A	1124	1686
	3 - A249 offslip (SB)	1.49	1194.90	146.9	186.5	F	544	816
	4 - Swale Way	1.26	585.20	98.7	162.4	F	633	950
	5 - Grovehurst Road	1.34	769.71	135.3	200.0	F	675	1013

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	681	170	379	873	0.780	668	0	0.0	3.2	16.615	C
	2 - Grovehurst Road	336	84	903	540	0.622	330	144	0.0	1.6	16.644	C

	3 - A249 onslip (NB)			945					287				
	4 - B2005 - link	380	95	0	1539	0.247		379	945	0.0	0.3	3.101	A
2 - South	1 - A249 onslip (SB)			508					600				
	2 - B2005 - link	946	236	126	1781	0.531		941	382	0.0	1.1	4.267	A
	3 - A249 offslip (SB)	446	112	1068	635	0.703		438	0	0.0	2.2	17.543	C
	4 - Swale Way	519	130	431	636	0.816		504	1074	0.0	3.8	24.966	C
	5 - Grovehurst Road	554	139	568	689	0.805		540	368	0.0	3.6	22.384	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	813	203	429	838	0.970	780	0	3.2	11.4	46.347	E
	2 - Grovehurst Road	401	100	1045	448	0.895	385	164	1.6	5.6	48.333	E
	3 - A249 onslip (NB)			1105				325				
	4 - B2005 - link	429	107	0	1539	0.279	429	1105	0.3	0.4	3.242	A
2 - South	1 - A249 onslip (SB)			571				684				
	2 - B2005 - link	1105	276	141	1772	0.624	1103	430	1.1	1.6	5.364	A
	3 - A249 offslip (SB)	533	133	1244	497	1.072	475	0	2.2	16.7	92.521	F
	4 - Swale Way	620	155	492	606	1.023	577	1227	3.8	14.6	74.659	F
	5 - Grovehurst Road	662	165	652	626	1.056	603	417	3.6	18.4	83.300	F

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	995	249	437	833	1.196	827	0	11.4	53.3	154.179	F
	2 - Grovehurst Road	491	123	1095	415	1.184	407	169	5.6	26.5	164.030	F
	3 - A249 onslip (NB)			1171				332				
	4 - B2005 - link	437	109	0	1539	0.284	437	1171	0.4	0.4	3.265	A
2 - South	1 - A249 onslip (SB)			579				705				
	2 - B2005 - link	1171	293	141	1772	0.661	1170	438	1.6	1.9	5.969	A
	3 - A249 offslip (SB)	653	163	1312	444	1.470	443	0	16.7	69.2	367.089	F
	4 - Swale Way	760	190	500	603	1.261	600	1255	14.6	54.5	222.604	F
	5 - Grovehurst Road	810	203	679	606	1.336	605	420	18.4	69.7	276.051	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	995	249	437	832	1.196	831	0	53.3	94.3	329.149	F
	2 - Grovehurst Road	491	123	1099	412	1.192	410	169	26.5	46.7	337.481	F
	3 - A249 onslip (NB)			1178				332				
	4 - B2005 - link	437	109	0	1539	0.284	437	1178	0.4	0.4	3.266	A
2 - South	1 - A249 onslip (SB)			579				707				
	2 - B2005 - link	1178	295	141	1772	0.665	1178	438	1.9	2.0	6.055	A
	3 - A249 offslip (SB)	653	163	1319	438	1.490	438	0	69.2	122.9	800.564	F
	4 - Swale Way	760	190	500	602	1.261	602	1257	54.5	94.0	455.086	F
	5 - Grovehurst Road	810	203	682	605	1.340	604	420	69.7	121.2	578.188	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	813	203	437	832	0.976	824	0	94.3	91.6	406.377	F
	2 - Grovehurst Road	401	100	1092	417	0.962	417	169	46.7	42.7	403.846	F
	3 - A249 onslip (NB)			1176				333				
	4 - B2005 - link	437	109	0	1539	0.284	437	1176	0.4	0.4	3.265	A
2 - South	1 - A249 onslip (SB)			579				706				
	2 - B2005 - link	1176	294	141	1772	0.664	1176	438	2.0	2.0	6.039	A
	3 - A249 offslip (SB)	533	133	1317	440	1.213	439	0	122.9	146.3	1111.108	F
	4 - Swale Way	620	155	500	602	1.030	601	1257	94.0	98.7	585.201	F
	5 - Grovehurst Road	662	165	681	605	1.093	605	420	121.2	135.3	769.709	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	681	170	435	833	0.817	824	0	91.6	55.6	323.491	F

1 - North	2 - Grovehurst Road	336	84	1092	417	0.805	408	168	42.7	24.7	301.950	F
	3 - A249 onslip (NB)			1168				331				
	4 - B2005 - link	435	109	0	1539	0.283	435	1168	0.4	0.4	3.261	A
2 - South	1 - A249 onslip (SB)			578				703				
	2 - B2005 - link	1169	292	141	1772	0.660	1169	436	2.0	2.0	5.969	A
	3 - A249 offslip (SB)	446	112	1310	445	1.002	444	0	146.3	146.9	1194.903	F
	4 - Swale Way	519	130	499	603	0.862	597	1255	98.7	79.4	538.593	F
	5 - Grovehurst Road	554	139	676	609	0.910	604	420	135.3	122.7	768.764	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.25	0.05	0.52	9.11	15.03			N/A	N/A
	2 - Grovehurst Road	1.56	0.04	0.38	4.04	7.66			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.12	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	2.22	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	3.82	0.03	0.34	8.15	20.65			N/A	N/A
	5 - Grovehurst Road	3.62	0.03	0.27	3.62	3.62			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	11.38	0.29	6.30	27.82	37.71			N/A	N/A
	2 - Grovehurst Road	5.57	0.09	1.81	14.85	21.62			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.63	0.07	1.05	3.64	5.01			N/A	N/A
	3 - A249 offslip (SB)	16.74	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	14.61	0.22	7.09	37.64	52.40			N/A	N/A
	5 - Grovehurst Road	18.36	0.09	3.58	53.58	84.07			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	53.35	22.24	49.80	82.60	93.92			N/A	N/A
	2 - Grovehurst Road	26.53	7.45	23.46	45.45	53.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.92	0.03	0.27	1.92	1.92			N/A	N/A
	3 - A249 offslip (SB)	69.19	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	54.51	20.37	50.26	87.50	100.58			N/A	N/A
	5 - Grovehurst Road	69.69	19.83	62.19	121.03	142.47			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	94.32	49.45	90.50	134.90	149.68			N/A	N/A
	2 - Grovehurst Road	46.67	18.26	43.21	73.68	84.32			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.30	1.22	1.71			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.96	0.03	0.26	1.96	1.96			N/A	N/A
	3 - A249 offslip (SB)	122.92	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	93.95	49.30	90.15	134.31	149.00			N/A	N/A
	5 - Grovehurst Road	121.15	>199	>199	>199	>199			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	91.60	41.46	86.56	138.57	156.30			N/A	N/A
	2 - Grovehurst Road	42.66	11.89	37.86	74.04	87.27			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.96	0.18	1.07	3.66	4.68			N/A	N/A
	3 - A249 offslip (SB)	146.33	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	98.73	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	135.31	>199	>199	>199	>199			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	55.64	14.68	49.11	98.23	116.31			N/A	N/A
	2 - Grovehurst Road	24.72	1.73	18.24	52.90	67.19			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.95	0.45	1.26	3.08	3.83			N/A	N/A
	3 - A249 offslip (SB)	146.91	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	79.44	28.41	73.01	129.71	149.75			N/A	N/A
	5 - Grovehurst Road	122.71	>199	>199	>199	>199			N/A	N/A

# 2024 + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	385.80	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1830.21	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	896	100.000
	2 - Grovehurst Road		ONE HOUR	✓	235	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	482	100.000
	4 - Swale Way		ONE HOUR	✓	1276	100.000
	5 - Grovehurst Road		ONE HOUR	✓	595	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	183	0	713
		2 - Grovehurst Road	0	0	27	208
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	264	541	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	45	0	0	479	393
	3 - A249 offslip (SB)	1	27	0	199	255
	4 - Swale Way	685	432	0	0	159
	5 - Grovehurst Road	150	339	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	2	0	20
	2 - Grovehurst Road	0	0	0	2
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	9	0	0	28	2
	3 - A249 offslip (SB)	0	11	0	8	3
	4 - Swale Way	18	3	0	0	3
	5 - Grovehurst Road	1	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.34	693.91	153.9	200.0	F	822	1233
	2 - Grovehurst Road	0.52	14.86	1.1	3.5	B	216	323
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.38	3.64	0.6	2.2	A	547	821
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.46	3.87	0.9	1.5	A	777	1166
	3 - A249 offslip (SB)	0.71	16.93	2.4	10.9	C	442	663
	4 - Swale Way	2.43	4510.73	835.6	180.1	F	1171	1756
	5 - Grovehurst Road	0.91	48.39	8.2	43.4	E	546	819

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	675	169	497	805	0.838	657	0	0.0	4.4	22.205	C
	2 - Grovehurst Road	177	44	857	585	0.302	175	297	0.0	0.4	8.742	A



	3 - A249 onslip (NB)			678				354				
	4 - B2005 - link	499	125	0	1590	0.313	497	678	0.0	0.5	3.286	A
2 - South	1 - A249 onslip (SB)			573				499				
	2 - B2005 - link	677	169	78	1757	0.386	675	495	0.0	0.6	3.319	A
	3 - A249 offslip (SB)	363	91	753	877	0.414	360	0	0.0	0.7	6.921	A
	4 - Swale Way	961	240	534	669	1.436	660	580	0.0	75.1	218.293	F
	5 - Grovehurst Road	448	112	632	680	0.659	441	562	0.0	1.8	14.619	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	805	201	539	776	1.038	748	0	4.4	18.9	71.797	F
	2 - Grovehurst Road	211	53	957	518	0.408	210	330	0.4	0.7	11.666	B
	3 - A249 onslip (NB)			781				387				
	4 - B2005 - link	540	135	0	1590	0.339	539	781	0.5	0.5	3.425	A
2 - South	1 - A249 onslip (SB)			630				505				
	2 - B2005 - link	780	195	94	1748	0.446	779	536	0.6	0.8	3.711	A
	3 - A249 offslip (SB)	433	108	873	780	0.555	431	0	0.7	1.2	10.249	B
	4 - Swale Way	1147	287	625	618	1.856	618	679	75.1	207.4	861.187	F
	5 - Grovehurst Road	535	134	604	699	0.765	530	639	1.8	3.0	20.751	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	987	247	594	739	1.335	738	0	18.9	81.2	256.676	F
	2 - Grovehurst Road	259	65	986	502	0.516	257	345	0.7	1.0	14.644	B
	3 - A249 onslip (NB)			815				428				
	4 - B2005 - link	594	148	0	1590	0.373	594	815	0.5	0.6	3.611	A
2 - South	1 - A249 onslip (SB)			703				513				
	2 - B2005 - link	808	202	114	1738	0.465	808	589	0.8	0.9	3.870	A
	3 - A249 offslip (SB)	531	133	921	743	0.715	526	0	1.2	2.4	16.292	C
	4 - Swale Way	1405	351	695	579	2.424	579	753	207.4	413.7	1932.573	F
	5 - Grovehurst Road	655	164	577	717	0.914	638	697	3.0	7.2	39.027	E

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	987	247	601	734	1.344	734	0	81.2	144.3	552.302	F
	2 - Grovehurst Road	259	65	988	501	0.517	259	347	1.0	1.1	14.858	B
	3 - A249 onslip (NB)			813				434				
	4 - B2005 - link	601	150	0	1590	0.378	601	813	0.6	0.6	3.637	A
2 - South	1 - A249 onslip (SB)			712				515				
	2 - B2005 - link	806	201	116	1736	0.464	806	596	0.9	0.9	3.868	A
	3 - A249 offslip (SB)	531	133	922	742	0.715	530	0	2.4	2.4	16.930	C
	4 - Swale Way	1405	351	696	579	2.428	579	756	413.7	620.3	3050.892	F
	5 - Grovehurst Road	655	164	577	718	0.913	651	698	7.2	8.2	48.389	E

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	805	201	551	768	1.049	767	0	144.3	153.9	693.909	F
	2 - Grovehurst Road	211	53	981	502	0.421	212	337	1.1	0.7	12.483	B
	3 - A249 onslip (NB)			799				395				
	4 - B2005 - link	551	138	0	1590	0.346	551	799	0.6	0.5	3.464	A
2 - South	1 - A249 onslip (SB)			646				508				
	2 - B2005 - link	797	199	99	1746	0.457	798	547	0.9	0.8	3.797	A
	3 - A249 offslip (SB)	433	108	896	762	0.569	438	0	2.4	1.4	11.243	B
	4 - Swale Way	1147	287	638	611	1.877	611	696	620.3	754.3	3935.112	F
	5 - Grovehurst Road	535	134	600	702	0.762	554	649	8.2	3.5	26.640	D

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	675	169	498	804	0.839	799	0	153.9	122.9	624.589	F

1 - North	2 - Grovehurst Road	177	44	970	506	0.350	178	327	0.7	0.5	10.993	B
	3 - A249 onslip (NB)			793				355				
	4 - B2005 - link	498	125	0	1590	0.313	498	793	0.5	0.5	3.299	A
2 - South	1 - A249 onslip (SB)			575				495				
	2 - B2005 - link	796	199	81	1756	0.453	796	494	0.8	0.8	3.753	A
	3 - A249 offslip (SB)	363	91	877	776	0.468	365	0	1.4	0.9	8.790	A
	4 - Swale Way	961	240	594	635	1.512	635	647	754.3	835.6	4510.728	F
	5 - Grovehurst Road	448	112	616	691	0.649	454	613	3.5	1.9	15.605	C

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.43	0.03	0.35	9.36	24.04			N/A	N/A
	2 - Grovehurst Road	0.43	0.00	0.00	0.43	0.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.62	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.70	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	75.14	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.84	0.71	1.39	1.98	2.41			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	18.90	0.39	10.67	46.73	63.37			N/A	N/A
	2 - Grovehurst Road	0.67	0.24	0.94	1.39	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.80	0.22	0.94	1.40	1.46			N/A	N/A
	3 - A249 offslip (SB)	1.22	0.08	0.99	2.28	2.98			N/A	N/A
	4 - Swale Way	207.39	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.99	0.10	1.20	7.15	9.94			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	81.16	39.34	77.19	119.54	133.79			N/A	N/A
	2 - Grovehurst Road	1.03	0.03	0.27	1.03	1.09			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.25	0.59	0.59			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.86	0.03	0.25	0.86	0.86			N/A	N/A
	3 - A249 offslip (SB)	2.36	0.03	0.30	2.55	10.91			N/A	N/A
	4 - Swale Way	413.75	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	7.15	0.07	1.09	20.52	32.34			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	144.33	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.05	0.03	0.28	1.05	3.52			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.03	0.28	0.64	2.21			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.86	0.03	0.26	0.86	0.86			N/A	N/A
	3 - A249 offslip (SB)	2.43	0.03	0.28	2.43	7.29			N/A	N/A
	4 - Swale Way	620.34	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	8.21	0.05	0.46	23.02	43.38			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	153.89	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.74	0.08	0.79	1.05	1.05			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.35	0.06	0.75	3.08	4.54			N/A	N/A
	4 - Swale Way	754.32	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.49	0.04	0.43	9.68	17.76			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	122.88	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.55	0.05	0.47	1.32	1.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.46	0.00	0.00	0.46	0.46			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.83	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.89	0.04	0.41	2.06	3.37			N/A	N/A
	4 - Swale Way	835.64	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.93	0.03	0.34	4.35	10.10			N/A	N/A

# 2024 + K3 Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	233.64	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	373.36	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	864	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	692	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From				
	1 - A249 offslip (NB)	0	42	0	822
	2 - Grovehurst Road	0	0	25	415
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	147	327	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	141	0	0	911	183
	3 - A249 offslip (SB)	1	18	0	377	174
	4 - Swale Way	389	226	0	0	77
	5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	7	0	18
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	7	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	16	6
	3 - A249 offslip (SB)	0	6	0	9	4
	4 - Swale Way	39	10	0	0	9
	5 - Grovehurst Road	1	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.15	303.59	73.4	125.6	F	793	1189
	2 - Grovehurst Road	1.16	322.36	39.2	75.7	F	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.29	3.30	0.4	1.7	A	418	627
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.20	2.0	4.9	A	1115	1672
	3 - A249 offslip (SB)	1.49	1135.42	134.6	200.0	F	523	785
	4 - Swale Way	1.21	464.80	79.9	138.5	F	635	952
	5 - Grovehurst Road	1.15	303.51	52.2	95.5	F	561	841

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	650	163	350	887	0.734	640	0	0.0	2.6	14.059	B
	2 - Grovehurst Road	331	83	850	573	0.578	326	140	0.0	1.3	14.264	B

	3 - A249 onslip (NB)			916				260				
	4 - B2005 - link	351	88	0	1530	0.230	350	916	0.0	0.3	3.049	A
2 - South	1 - A249 onslip (SB)			479				543				
	2 - B2005 - link	919	230	127	1780	0.516	914	352	0.0	1.1	4.141	A
	3 - A249 offslip (SB)	429	107	1042	654	0.656	422	0	0.0	1.8	15.062	C
	4 - Swale Way	521	130	383	661	0.788	508	1081	0.0	3.3	21.882	C
	5 - Grovehurst Road	460	115	570	685	0.672	452	321	0.0	1.9	15.022	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	777	194	410	845	0.920	756	0	2.6	7.7	34.572	D
	2 - Grovehurst Road	396	99	1002	473	0.836	385	164	1.3	4.1	36.744	E
	3 - A249 onslip (NB)			1082				305				
	4 - B2005 - link	410	103	0	1530	0.268	410	1082	0.3	0.4	3.215	A
2 - South	1 - A249 onslip (SB)			561				636				
	2 - B2005 - link	1085	271	150	1766	0.614	1083	411	1.1	1.6	5.250	A
	3 - A249 offslip (SB)	512	128	1233	506	1.014	472	0	1.8	11.9	71.981	F
	4 - Swale Way	622	156	444	631	0.985	590	1261	3.3	11.4	60.430	F
	5 - Grovehurst Road	549	137	663	616	0.892	533	370	1.9	5.9	37.921	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	951	238	436	826	1.152	817	0	7.7	41.2	122.211	F
	2 - Grovehurst Road	484	121	1078	423	1.145	412	175	4.1	22.1	136.651	F
	3 - A249 onslip (NB)			1166				325				
	4 - B2005 - link	437	109	0	1530	0.285	436	1166	0.4	0.4	3.292	A
2 - South	1 - A249 onslip (SB)			600				679				
	2 - B2005 - link	1169	292	163	1759	0.665	1168	437	1.6	1.9	6.070	A
	3 - A249 offslip (SB)	628	157	1330	430	1.460	428	0	11.9	61.7	329.127	F
	4 - Swale Way	762	190	451	628	1.214	624	1307	11.4	46.0	181.554	F
	5 - Grovehurst Road	673	168	702	588	1.145	578	373	5.9	29.7	128.958	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	951	238	439	824	1.154	823	0	41.2	73.4	261.360	F
	2 - Grovehurst Road	484	121	1086	418	1.158	416	176	22.1	39.2	282.954	F
	3 - A249 onslip (NB)			1175				327				
	4 - B2005 - link	439	110	0	1530	0.287	439	1175	0.4	0.4	3.301	A
2 - South	1 - A249 onslip (SB)			604				684				
	2 - B2005 - link	1178	295	164	1758	0.670	1178	440	1.9	2.0	6.197	A
	3 - A249 offslip (SB)	628	157	1342	421	1.491	421	0	61.7	113.4	755.750	F
	4 - Swale Way	762	190	451	628	1.214	627	1311	46.0	79.7	372.652	F
	5 - Grovehurst Road	673	168	706	585	1.150	583	373	29.7	52.2	266.407	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	777	194	436	826	0.940	815	0	73.4	63.8	303.591	F
	2 - Grovehurst Road	396	99	1076	424	0.932	414	175	39.2	34.7	322.362	F
	3 - A249 onslip (NB)			1166				324				
	4 - B2005 - link	436	109	0	1530	0.285	436	1166	0.4	0.4	3.291	A
2 - South	1 - A249 onslip (SB)			600				678				
	2 - B2005 - link	1169	292	163	1759	0.665	1169	437	2.0	2.0	6.102	A
	3 - A249 offslip (SB)	512	128	1332	429	1.195	429	0	113.4	134.4	1051.459	F
	4 - Swale Way	622	156	452	628	0.991	622	1309	79.7	79.9	464.804	F
	5 - Grovehurst Road	549	137	700	589	0.933	578	373	52.2	45.0	303.509	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	650	163	435	827	0.787	814	0	63.8	22.8	195.943	F

1 - North	2 - Grovehurst Road	331	83	1075	425	0.779	414	175	34.7	14.1	219.366	F
	3 - A249 onslip (NB)			1165				324				
	4 - B2005 - link	435	109	0	1530	0.285	435	1165	0.4	0.4	3.288	A
	1 - A249 onslip (SB)			599				677				
2 - South	2 - B2005 - link	1168	292	163	1759	0.664	1168	436	2.0	2.0	6.087	A
	3 - A249 offslip (SB)	429	107	1330	430	0.998	428	0	134.4	134.6	1135.422	F
	4 - Swale Way	521	130	451	628	0.830	620	1307	79.9	55.1	393.772	F
	5 - Grovehurst Road	460	115	699	590	0.779	577	373	45.0	15.7	195.392	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.59	0.08	1.37	6.33	8.97			N/A	N/A
	2 - Grovehurst Road	1.32	0.05	0.47	3.29	5.13			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.06	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.82	0.03	0.25	1.82	1.82			N/A	N/A
	4 - Swale Way	3.31	0.04	0.44	9.25	16.43			N/A	N/A
	5 - Grovehurst Road	1.94	0.07	1.03	4.72	6.81			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	7.71	0.18	3.79	19.19	26.45			N/A	N/A
	2 - Grovehurst Road	4.07	0.08	1.03	10.87	16.08			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.57	0.07	1.00	3.51	4.88			N/A	N/A
	3 - A249 offslip (SB)	11.94	0.03	0.29	11.94	32.57			N/A	N/A
	4 - Swale Way	11.41	0.27	6.20	28.06	38.17			N/A	N/A
	5 - Grovehurst Road	5.92	0.14	2.63	14.90	20.81			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	41.25	14.73	37.74	66.80	77.04			N/A	N/A
	2 - Grovehurst Road	22.14	5.28	19.14	39.20	46.63			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.95	0.03	0.27	1.95	1.95			N/A	N/A
	3 - A249 offslip (SB)	61.72	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	45.99	17.54	42.45	73.16	83.90			N/A	N/A
	5 - Grovehurst Road	29.67	8.70	26.42	50.44	59.13			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	73.44	32.91	69.24	111.27	125.62			N/A	N/A
	2 - Grovehurst Road	39.23	12.84	35.51	65.14	75.74			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.30	1.26	1.70			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.00	0.03	0.26	2.00	2.00			N/A	N/A
	3 - A249 offslip (SB)	113.42	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	79.74	39.99	76.10	115.91	129.23			N/A	N/A
	5 - Grovehurst Road	52.15	19.79	48.15	83.22	95.49			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	63.78	23.34	58.72	103.23	118.92			N/A	N/A
	2 - Grovehurst Road	34.65	7.86	29.89	62.81	75.13			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.20	1.12	3.66	4.66			N/A	N/A
	3 - A249 offslip (SB)	134.36	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	79.88	34.85	75.13	122.30	138.49			N/A	N/A
	5 - Grovehurst Road	44.99	12.90	40.09	77.61	91.28			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	22.84	3.58	18.71	43.91	53.68			N/A	N/A
	2 - Grovehurst Road	14.08	0.89	9.61	31.24	40.42			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.52	1.31	3.08	3.80			N/A	N/A
	3 - A249 offslip (SB)	134.59	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	55.11	13.84	48.32	98.39	116.90			N/A	N/A
	5 - Grovehurst Road	15.67	1.39	11.36	33.42	42.53			N/A	N/A



# 2024 + K3 Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	254.29	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1665.61	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	828	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	443	100.000
	4 - Swale Way		ONE HOUR	✓	1279	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	648
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	262	522	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	480	322
	3 - A249 offslip (SB)	1	27	0	199	216
	4 - Swale Way	688	432	0	0	159
	5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	22
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	4	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	28	1
	3 - A249 offslip (SB)	0	11	0	8	4
	4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.25	466.35	101.2	157.5	F	760	1140
	2 - Grovehurst Road	0.49	13.78	0.9	3.5	B	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.64	0.6	2.2	A	539	808
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.46	3.83	0.8	1.5	A	752	1128
	3 - A249 offslip (SB)	0.65	13.85	1.8	5.8	B	407	610
	4 - Swale Way	2.25	3942.99	773.9	179.2	F	1174	1760
	5 - Grovehurst Road	0.85	33.48	5.2	27.6	D	490	735

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	623	156	492	799	0.781	610	0	0.0	3.2	18.061	C
	2 - Grovehurst Road	171	43	805	619	0.276	169	297	0.0	0.4	7.989	A

	3 - A249 onslip (NB)			627				348				
	4 - B2005 - link	494	123	0	1580	0.312	492	627	0.0	0.5	3.301	A
2 - South	1 - A249 onslip (SB)			571				490				
	2 - B2005 - link	630	158	79	1750	0.360	628	493	0.0	0.6	3.201	A
	3 - A249 offslip (SB)	334	83	707	908	0.367	331	0	0.0	0.6	6.218	A
	4 - Swale Way	963	241	453	711	1.354	701	584	0.0	65.6	180.266	F
	5 - Grovehurst Road	402	101	666	657	0.612	396	488	0.0	1.5	13.504	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	744	186	533	770	0.966	714	0	3.2	10.7	48.205	E
	2 - Grovehurst Road	204	51	914	543	0.375	203	334	0.4	0.6	10.555	B
	3 - A249 onslip (NB)			738				379				
	4 - B2005 - link	533	133	0	1580	0.338	533	738	0.5	0.5	3.437	A
2 - South	1 - A249 onslip (SB)			627				494				
	2 - B2005 - link	741	185	95	1741	0.426	741	533	0.6	0.7	3.597	A
	3 - A249 offslip (SB)	398	100	835	804	0.495	397	0	0.6	1.0	8.810	A
	4 - Swale Way	1150	287	538	665	1.729	665	694	65.6	186.8	712.677	F
	5 - Grovehurst Road	480	120	644	672	0.714	477	559	1.5	2.3	18.093	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	912	228	586	735	1.241	731	0	10.7	56.0	178.451	F
	2 - Grovehurst Road	250	62	962	513	0.487	249	355	0.6	0.9	13.546	B
	3 - A249 onslip (NB)			791				420				
	4 - B2005 - link	586	147	0	1580	0.371	586	791	0.5	0.6	3.620	A
2 - South	1 - A249 onslip (SB)			700				496				
	2 - B2005 - link	789	197	115	1730	0.456	789	585	0.7	0.8	3.823	A
	3 - A249 offslip (SB)	488	122	904	749	0.651	484	0	1.0	1.8	13.418	B
	4 - Swale Way	1408	352	607	626	2.248	626	781	186.8	382.3	1641.556	F
	5 - Grovehurst Road	588	147	618	690	0.852	578	615	2.3	4.8	29.815	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	912	228	591	731	1.247	731	0	56.0	101.2	391.765	F
	2 - Grovehurst Road	250	62	965	511	0.489	250	356	0.9	0.9	13.781	B
	3 - A249 onslip (NB)			792				423				
	4 - B2005 - link	591	148	0	1580	0.374	591	792	0.6	0.6	3.637	A
2 - South	1 - A249 onslip (SB)			707				498				
	2 - B2005 - link	790	198	116	1729	0.457	790	590	0.8	0.8	3.834	A
	3 - A249 offslip (SB)	488	122	907	747	0.653	488	0	1.8	1.8	13.845	B
	4 - Swale Way	1408	352	609	625	2.252	625	785	382.3	578.0	2661.399	F
	5 - Grovehurst Road	588	147	618	690	0.852	586	617	4.8	5.2	33.477	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	744	186	539	767	0.971	759	0	101.2	97.5	466.350	F
	2 - Grovehurst Road	204	51	953	516	0.395	205	345	0.9	0.7	11.618	B
	3 - A249 onslip (NB)			775				383				
	4 - B2005 - link	538	135	0	1580	0.341	539	775	0.6	0.5	3.455	A
2 - South	1 - A249 onslip (SB)			635				493				
	2 - B2005 - link	780	195	97	1740	0.448	780	537	0.8	0.8	3.750	A
	3 - A249 offslip (SB)	398	100	877	770	0.517	401	0	1.8	1.1	9.846	A
	4 - Swale Way	1150	287	557	654	1.757	654	721	578.0	701.9	3447.735	F
	5 - Grovehurst Road	480	120	637	677	0.709	490	574	5.2	2.6	20.219	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	623	156	491	799	0.780	791	0	97.5	55.6	350.619	F

1 - North	2 - Grovehurst Road	171	43	946	518	0.330	172	336	0.7	0.5	10.421	B
	3 - A249 onslip (NB)			770				348				
	4 - B2005 - link	491	123	0	1580	0.311	491	770	0.5	0.5	3.305	A
2 - South	1 - A249 onslip (SB)			571				486				
	2 - B2005 - link	780	195	81	1749	0.446	780	490	0.8	0.8	3.717	A
	3 - A249 offslip (SB)	334	83	860	782	0.427	335	0	1.1	0.8	8.079	A
	4 - Swale Way	963	241	521	675	1.427	675	675	701.9	773.9	3942.986	F
	5 - Grovehurst Road	402	101	651	668	0.602	406	545	2.6	1.6	13.980	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.24	0.05	0.79	9.00	14.35			N/A	N/A
	2 - Grovehurst Road	0.38	0.00	0.00	0.38	0.38			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.56	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.57	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	65.57	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.52	1.05	1.50	1.90	1.95			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.73	0.28	5.94	26.13	35.40			N/A	N/A
	2 - Grovehurst Road	0.59	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.74	0.20	0.93	1.39	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.96	0.09	0.92	1.55	1.89			N/A	N/A
	4 - Swale Way	186.84	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.35	0.09	1.42	5.38	7.42			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	55.98	25.85	52.86	83.63	94.06			N/A	N/A
	2 - Grovehurst Road	0.92	0.03	0.26	0.92	0.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.25	0.59	0.59			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.83	0.03	0.25	0.83	0.83			N/A	N/A
	3 - A249 offslip (SB)	1.79	0.03	0.28	1.79	5.79			N/A	N/A
	4 - Swale Way	382.28	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.78	0.04	0.44	13.30	24.70			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	101.22	57.88	97.92	139.58	153.20			N/A	N/A
	2 - Grovehurst Road	0.94	0.03	0.28	0.94	3.50			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.28	0.65	2.19			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.03	0.26	0.84	0.86			N/A	N/A
	3 - A249 offslip (SB)	1.84	0.03	0.28	1.84	4.53			N/A	N/A
	4 - Swale Way	578.03	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.16	0.03	0.34	9.91	27.64			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	97.47	49.33	93.20	141.40	157.50			N/A	N/A
	2 - Grovehurst Road	0.67	0.08	0.79	1.37	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.82	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.10	0.07	0.90	1.95	2.72			N/A	N/A
	4 - Swale Way	701.91	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.59	0.04	0.43	7.14	12.70			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	55.61	18.26	50.48	92.76	107.90			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.45	1.28	1.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.76	0.05	0.48	1.48	1.99			N/A	N/A
	4 - Swale Way	773.94	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.57	0.03	0.35	3.82	8.02			N/A	N/A

# 2024 + WKN Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	254.77	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	389.50	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2024 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	871	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	699	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	829
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	147	327	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	141	0	0	918	183
	3 - A249 offslip (SB)	1	18	0	377	174
	4 - Swale Way	396	226	0	0	77
	5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	7	0	19
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	7	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	17	6
	3 - A249 offslip (SB)	0	6	0	9	4
	4 - Swale Way	40	10	0	0	9
	5 - Grovehurst Road	1	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.17	339.22	80.0	132.9	F	799	1199
	2 - Grovehurst Road	1.16	329.05	39.8	76.5	F	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.29	3.29	0.4	1.7	A	416	624
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.26	2.0	5.0	A	1112	1669
	3 - A249 offslip (SB)	1.50	1164.24	137.4	186.3	F	523	785
	4 - Swale Way	1.23	503.84	86.8	147.3	F	641	962
	5 - Grovehurst Road	1.15	311.92	52.9	96.5	F	561	841

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	656	164	350	880	0.745	645	0	0.0	2.7	14.702	B
	2 - Grovehurst Road	331	83	855	567	0.584	326	140	0.0	1.4	14.628	B

	3 - A249 onslip (NB)			921				260				
	4 - B2005 - link	351	88	0	1530	0.229	350	921	0.0	0.3	3.048	A
2 - South	1 - A249 onslip (SB)			479				548				
	2 - B2005 - link	923	231	127	1768	0.522	918	351	0.0	1.1	4.218	A
	3 - A249 offslip (SB)	429	107	1046	646	0.664	422	0	0.0	1.9	15.549	C
	4 - Swale Way	526	132	382	658	0.800	512	1085	0.0	3.5	22.908	C
	5 - Grovehurst Road	460	115	574	679	0.677	452	320	0.0	2.0	15.352	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	783	196	408	839	0.933	760	0	2.7	8.5	37.515	E
	2 - Grovehurst Road	396	99	1005	467	0.846	384	163	1.4	4.3	38.631	E
	3 - A249 onslip (NB)			1085				304				
	4 - B2005 - link	409	102	0	1530	0.267	408	1085	0.3	0.4	3.210	A
2 - South	1 - A249 onslip (SB)			559				639				
	2 - B2005 - link	1087	272	150	1755	0.620	1085	409	1.1	1.6	5.358	A
	3 - A249 offslip (SB)	512	128	1235	498	1.029	468	0	1.9	13.0	77.181	F
	4 - Swale Way	628	157	442	629	0.999	592	1262	3.5	12.6	65.004	F
	5 - Grovehurst Road	549	137	666	612	0.898	533	368	2.0	6.1	39.231	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	959	240	433	822	1.167	814	0	8.5	44.8	132.075	F
	2 - Grovehurst Road	484	121	1074	422	1.149	411	174	4.3	22.6	139.833	F
	3 - A249 onslip (NB)			1163				322				
	4 - B2005 - link	434	108	0	1530	0.283	433	1163	0.4	0.4	3.283	A
2 - South	1 - A249 onslip (SB)			597				680				
	2 - B2005 - link	1165	291	162	1748	0.666	1163	435	1.6	2.0	6.143	A
	3 - A249 offslip (SB)	628	157	1326	427	1.468	426	0	13.0	63.3	341.810	F
	4 - Swale Way	770	192	448	626	1.229	623	1304	12.6	49.3	194.537	F
	5 - Grovehurst Road	673	168	700	586	1.148	577	370	6.1	30.2	131.480	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	959	240	436	820	1.170	818	0	44.8	80.0	284.434	F
	2 - Grovehurst Road	484	121	1080	418	1.160	415	175	22.6	39.8	287.736	F
	3 - A249 onslip (NB)			1171				325				
	4 - B2005 - link	436	109	0	1530	0.285	436	1171	0.4	0.4	3.291	A
2 - South	1 - A249 onslip (SB)			601				684				
	2 - B2005 - link	1173	293	164	1747	0.671	1173	437	2.0	2.0	6.264	A
	3 - A249 offslip (SB)	628	157	1336	419	1.497	419	0	63.3	115.5	774.112	F
	4 - Swale Way	770	192	448	626	1.229	625	1308	49.3	85.4	399.116	F
	5 - Grovehurst Road	673	168	704	584	1.153	582	370	30.2	52.9	271.038	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	783	196	433	822	0.953	812	0	80.0	72.8	339.222	F
	2 - Grovehurst Road	396	99	1071	423	0.934	413	173	39.8	35.5	329.052	F
	3 - A249 onslip (NB)			1162				322				
	4 - B2005 - link	433	108	0	1530	0.283	433	1162	0.4	0.4	3.285	A
2 - South	1 - A249 onslip (SB)			596				680				
	2 - B2005 - link	1164	291	162	1748	0.666	1164	434	2.0	2.0	6.164	A
	3 - A249 offslip (SB)	512	128	1326	427	1.199	427	0	115.5	136.8	1074.313	F
	4 - Swale Way	628	157	448	626	1.004	623	1305	85.4	86.8	503.838	F
	5 - Grovehurst Road	549	137	701	586	0.937	575	370	52.9	46.5	311.923	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	656	164	432	822	0.797	811	0	72.8	34.0	240.178	F



1 - North	2 - Grovehurst Road	331	83	1070	424	0.781	412	173	35.5	15.2	227.827	F
	3 - A249 onslip (NB)			1161				322				
	4 - B2005 - link	432	108	0	1530	0.283	432	1161	0.4	0.4	3.282	A
	1 - A249 onslip (SB)			596				678				
2 - South	2 - B2005 - link	1163	291	162	1748	0.665	1163	433	2.0	2.0	6.159	A
	3 - A249 offslip (SB)	429	107	1325	428	1.003	427	0	136.8	137.4	1164.237	F
	4 - Swale Way	526	132	448	626	0.841	619	1304	86.8	63.6	438.978	F
	5 - Grovehurst Road	460	115	697	589	0.781	576	370	46.5	17.4	205.509	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.74	0.06	1.09	7.20	10.77			N/A	N/A
	2 - Grovehurst Road	1.35	0.05	0.45	3.45	5.47			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.08	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.88	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	3.51	0.04	0.40	9.49	18.34			N/A	N/A
	5 - Grovehurst Road	1.99	0.06	0.99	4.89	7.14			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	8.53	0.19	4.21	21.38	29.51			N/A	N/A
	2 - Grovehurst Road	4.29	0.08	1.22	11.42	16.77			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.60	0.07	1.02	3.60	4.98			N/A	N/A
	3 - A249 offslip (SB)	12.97	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	12.58	0.27	6.74	31.24	42.67			N/A	N/A
	5 - Grovehurst Road	6.14	0.14	2.79	15.42	21.47			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	44.79	17.01	41.31	71.32	81.83			N/A	N/A
	2 - Grovehurst Road	22.58	5.50	19.58	39.81	47.29			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.96	0.03	0.27	1.96	1.96			N/A	N/A
	3 - A249 offslip (SB)	63.32	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	49.34	19.05	45.62	78.23	89.61			N/A	N/A
	5 - Grovehurst Road	30.19	9.02	26.94	51.10	59.84			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	79.95	38.17	75.93	118.49	132.88			N/A	N/A
	2 - Grovehurst Road	39.82	13.27	36.13	65.84	76.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.30	1.26	1.67			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.01	0.03	0.26	2.01	2.01			N/A	N/A
	3 - A249 offslip (SB)	115.48	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	85.39	44.00	81.75	122.88	136.61			N/A	N/A
	5 - Grovehurst Road	52.94	20.40	48.99	84.18	96.52			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	72.81	28.40	67.60	115.73	132.57			N/A	N/A
	2 - Grovehurst Road	35.45	8.18	30.65	64.06	76.54			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.01	0.18	1.10	3.75	4.80			N/A	N/A
	3 - A249 offslip (SB)	136.80	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	86.79	39.77	82.11	130.70	147.25			N/A	N/A
	5 - Grovehurst Road	46.50	13.62	41.56	79.78	93.66			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	33.95	8.27	29.56	60.54	72.03			N/A	N/A
	2 - Grovehurst Road	15.17	0.96	10.39	33.70	43.61			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.00	0.49	1.31	3.19	3.89			N/A	N/A
	3 - A249 offslip (SB)	137.45	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	63.62	18.53	56.92	109.73	128.92			N/A	N/A
	5 - Grovehurst Road	17.43	1.58	13.31	35.71	44.73			N/A	N/A

# 2024 + WKN Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	267.56	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1721.89	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2024 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	836	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	444	100.000
	4 - Swale Way		ONE HOUR	✓	1297	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	656
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	262	522	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	488	322
	3 - A249 offslip (SB)	1	27	0	200	216
	4 - Swale Way	706	432	0	0	159
	5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	22
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	4	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	29	1
	3 - A249 offslip (SB)	0	11	0	8	4
	4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.26	487.94	105.4	164.4	F	767	1151
	2 - Grovehurst Road	0.49	13.83	0.9	3.5	B	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.63	0.6	2.2	A	536	804
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.46	3.87	0.8	1.5	A	751	1127
	3 - A249 offslip (SB)	0.66	14.03	1.9	6.1	B	407	611
	4 - Swale Way	2.28	4049.07	796.9	179.0	F	1190	1785
	5 - Grovehurst Road	0.85	33.97	5.2	28.1	D	490	735

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	629	157	489	800	0.786	616	0	0.0	3.3	18.392	C
	2 - Grovehurst Road	171	43	809	616	0.278	169	296	0.0	0.4	8.038	A

	3 - A249 onslip (NB)			633				345					
	4 - B2005 - link	490	123	0	1580	0.310		489	633	0.0	0.4	3.291	A
2 - South	1 - A249 onslip (SB)			568					495				
	2 - B2005 - link	632	158	79	1740	0.363		630	490	0.0	0.6	3.237	A
	3 - A249 offslip (SB)	334	84	709	903	0.370		332	0	0.0	0.6	6.280	A
	4 - Swale Way	976	244	452	712	1.372		701	589	0.0	68.8	188.328	F
	5 - Grovehurst Road	402	101	667	655	0.613		396	486	0.0	1.5	13.575	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	752	188	530	772	0.973	719	0	3.3	11.4	50.112	F
	2 - Grovehurst Road	204	51	918	541	0.377	203	332	0.4	0.6	10.637	B
	3 - A249 onslip (NB)			744				377				
	4 - B2005 - link	531	133	0	1580	0.336	530	744	0.4	0.5	3.428	A
2 - South	1 - A249 onslip (SB)			624				498				
	2 - B2005 - link	743	186	95	1731	0.429	742	530	0.6	0.7	3.638	A
	3 - A249 offslip (SB)	399	100	837	799	0.500	398	0	0.6	1.0	8.931	A
	4 - Swale Way	1166	291	535	666	1.752	665	699	68.8	193.9	740.381	F
	5 - Grovehurst Road	480	120	645	671	0.716	477	555	1.5	2.4	18.215	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	920	230	583	736	1.251	732	0	11.4	58.4	185.254	F
	2 - Grovehurst Road	250	62	963	512	0.488	249	353	0.6	0.9	13.601	B
	3 - A249 onslip (NB)			794				418				
	4 - B2005 - link	584	146	0	1580	0.369	583	794	0.5	0.6	3.611	A
2 - South	1 - A249 onslip (SB)			698				501				
	2 - B2005 - link	788	197	115	1720	0.458	787	583	0.7	0.8	3.859	A
	3 - A249 offslip (SB)	489	122	902	747	0.655	486	0	1.0	1.8	13.597	B
	4 - Swale Way	1428	357	603	628	2.274	628	784	193.9	393.9	1690.921	F
	5 - Grovehurst Road	588	147	620	688	0.854	578	611	2.4	4.8	30.164	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	920	230	588	733	1.256	732	0	58.4	105.4	406.691	F
	2 - Grovehurst Road	250	62	966	510	0.490	250	354	0.9	0.9	13.829	B
	3 - A249 onslip (NB)			795				422				
	4 - B2005 - link	589	147	0	1580	0.372	588	795	0.6	0.6	3.628	A
2 - South	1 - A249 onslip (SB)			704				502				
	2 - B2005 - link	789	197	116	1719	0.459	788	588	0.8	0.8	3.869	A
	3 - A249 offslip (SB)	489	122	905	745	0.656	489	0	1.8	1.9	14.029	B
	4 - Swale Way	1428	357	605	627	2.278	627	788	393.9	594.2	2729.811	F
	5 - Grovehurst Road	588	147	620	689	0.854	586	613	4.8	5.2	33.970	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	752	188	536	768	0.978	761	0	105.4	103.1	487.942	F
	2 - Grovehurst Road	204	51	954	515	0.396	205	343	0.9	0.7	11.656	B
	3 - A249 onslip (NB)			778				381				
	4 - B2005 - link	536	134	0	1580	0.339	536	778	0.6	0.5	3.447	A
2 - South	1 - A249 onslip (SB)			632				497				
	2 - B2005 - link	778	195	97	1729	0.450	778	535	0.8	0.8	3.787	A
	3 - A249 offslip (SB)	399	100	876	767	0.520	402	0	1.9	1.1	9.942	A
	4 - Swale Way	1166	291	553	656	1.778	656	724	594.2	721.8	3536.797	F
	5 - Grovehurst Road	480	120	639	675	0.711	491	570	5.2	2.6	20.447	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	629	157	489	800	0.786	793	0	103.1	62.2	377.248	F

1 - North	2 - Grovehurst Road	171	43	947	517	0.331	172	334	0.7	0.5	10.457	B
	3 - A249 onslip (NB)			773				346				
	4 - B2005 - link	488	122	0	1580	0.309	489	773	0.5	0.4	3.300	A
2 - South	1 - A249 onslip (SB)			568				491				
	2 - B2005 - link	779	195	81	1739	0.448	779	487	0.8	0.8	3.748	A
	3 - A249 offslip (SB)	334	84	859	779	0.429	336	0	1.1	0.8	8.143	A
	4 - Swale Way	976	244	517	676	1.444	676	678	721.8	796.9	4049.066	F
	5 - Grovehurst Road	402	101	653	666	0.604	406	540	2.6	1.6	14.079	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.34	0.05	0.56	9.39	15.43			N/A	N/A
	2 - Grovehurst Road	0.38	0.00	0.00	0.38	0.38			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.57	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.58	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	68.78	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.53	1.05	1.50	1.90	1.95			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	11.36	0.29	6.32	27.71	37.54			N/A	N/A
	2 - Grovehurst Road	0.60	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.75	0.21	0.93	1.39	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.98	0.09	0.92	1.59	1.92			N/A	N/A
	4 - Swale Way	193.92	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.36	0.09	1.43	5.42	7.48			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	58.36	27.32	55.20	86.79	97.48			N/A	N/A
	2 - Grovehurst Road	0.93	0.03	0.26	0.93	0.93			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.58	0.03	0.25	0.58	0.58			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.03	0.25	0.84	0.84			N/A	N/A
	3 - A249 offslip (SB)	1.82	0.03	0.28	1.82	6.07			N/A	N/A
	4 - Swale Way	393.93	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.84	0.04	0.44	13.53	24.94			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	105.44	61.27	102.17	144.36	158.09			N/A	N/A
	2 - Grovehurst Road	0.95	0.03	0.28	0.95	3.49			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.28	0.69	2.22			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.03	0.26	0.84	0.84			N/A	N/A
	3 - A249 offslip (SB)	1.87	0.03	0.28	1.87	4.62			N/A	N/A
	4 - Swale Way	594.25	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.23	0.03	0.34	10.29	28.15			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	103.07	53.60	98.85	147.99	164.36			N/A	N/A
	2 - Grovehurst Road	0.67	0.08	0.79	1.37	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.82	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.11	0.07	0.90	1.99	2.80			N/A	N/A
	4 - Swale Way	721.81	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.62	0.04	0.43	7.22	12.85			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	62.23	21.14	56.76	102.93	119.38			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.45	1.28	1.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.76	0.05	0.48	1.53	2.08			N/A	N/A
	4 - Swale Way	796.89	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.58	0.03	0.35	3.84	8.09			N/A	N/A

# 2024 + K3 and WKN Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	259.05	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	394.50	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	874	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	702	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	832
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only



	4 - B2005 - link	0	147	327	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	141	0	0	921	183
	3 - A249 offslip (SB)	1	18	0	377	174
	4 - Swale Way	399	226	0	0	77
	5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	7	0	19
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	7	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	17	6
	3 - A249 offslip (SB)	0	6	0	9	4
	4 - Swale Way	40	10	0	0	9
	5 - Grovehurst Road	1	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.17	346.24	81.4	135.0	F	802	1203
	2 - Grovehurst Road	1.16	330.47	39.9	76.8	F	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.28	3.29	0.4	1.7	A	415	623
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.27	2.0	5.0	A	1114	1670
	3 - A249 offslip (SB)	1.50	1171.97	138.2	186.3	F	523	785
	4 - Swale Way	1.23	516.79	89.3	150.3	F	644	966
	5 - Grovehurst Road	1.15	314.07	53.2	96.6	F	561	841

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	658	164	350	880	0.748	647	0	0.0	2.8	14.822	B
	2 - Grovehurst Road	331	83	857	565	0.586	326	139	0.0	1.4	14.711	B

	3 - A249 onslip (NB)			923				260				
	4 - B2005 - link	351	88	0	1530	0.229	350	923	0.0	0.3	3.048	A
2 - South	1 - A249 onslip (SB)			478				550				
	2 - B2005 - link	925	231	127	1768	0.523	921	351	0.0	1.1	4.229	A
	3 - A249 offslip (SB)	429	107	1048	645	0.666	422	0	0.0	1.9	15.658	C
	4 - Swale Way	529	132	382	658	0.804	514	1087	0.0	3.6	23.214	C
	5 - Grovehurst Road	460	115	576	678	0.679	452	320	0.0	2.0	15.457	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	786	196	408	839	0.936	762	0	2.8	8.7	38.108	E
	2 - Grovehurst Road	396	99	1007	466	0.848	384	163	1.4	4.3	39.037	E
	3 - A249 onslip (NB)			1087				303				
	4 - B2005 - link	408	102	0	1530	0.267	408	1087	0.3	0.4	3.209	A
2 - South	1 - A249 onslip (SB)			559				641				
	2 - B2005 - link	1089	272	150	1755	0.621	1087	409	1.1	1.6	5.375	A
	3 - A249 offslip (SB)	512	128	1237	497	1.032	467	0	1.9	13.2	78.349	F
	4 - Swale Way	631	158	441	629	1.003	593	1263	3.6	13.0	66.488	F
	5 - Grovehurst Road	549	137	667	610	0.900	532	367	2.0	6.2	39.637	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	962	241	433	822	1.170	815	0	8.7	45.6	134.038	F
	2 - Grovehurst Road	484	121	1074	421	1.150	411	173	4.3	22.7	140.508	F
	3 - A249 onslip (NB)			1163				322				
	4 - B2005 - link	433	108	0	1530	0.283	433	1163	0.4	0.4	3.281	A
2 - South	1 - A249 onslip (SB)			596				681				
	2 - B2005 - link	1166	291	162	1748	0.667	1164	434	1.6	2.0	6.153	A
	3 - A249 offslip (SB)	628	157	1326	427	1.471	426	0	13.2	63.7	344.878	F
	4 - Swale Way	773	193	447	626	1.234	623	1305	13.0	50.5	198.863	F
	5 - Grovehurst Road	673	168	701	586	1.149	576	369	6.2	30.3	132.224	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	962	241	435	820	1.173	819	0	45.6	81.4	288.993	F
	2 - Grovehurst Road	484	121	1080	418	1.160	415	174	22.7	39.9	288.750	F
	3 - A249 onslip (NB)			1171				324				
	4 - B2005 - link	435	109	0	1530	0.285	435	1171	0.4	0.4	3.288	A
2 - South	1 - A249 onslip (SB)			600				685				
	2 - B2005 - link	1173	293	164	1747	0.672	1173	436	2.0	2.0	6.272	A
	3 - A249 offslip (SB)	628	157	1337	419	1.499	418	0	63.7	116.0	778.887	F
	4 - Swale Way	773	193	447	626	1.234	626	1308	50.5	87.3	407.921	F
	5 - Grovehurst Road	673	168	704	583	1.153	581	369	30.3	53.2	272.351	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	786	196	432	822	0.955	812	0	81.4	74.7	346.242	F
	2 - Grovehurst Road	396	99	1072	423	0.935	413	173	39.9	35.6	330.473	F
	3 - A249 onslip (NB)			1163				322				
	4 - B2005 - link	432	108	0	1530	0.283	432	1163	0.4	0.4	3.282	A
2 - South	1 - A249 onslip (SB)			595				681				
	2 - B2005 - link	1165	291	162	1748	0.666	1165	433	2.0	2.0	6.175	A
	3 - A249 offslip (SB)	512	128	1326	427	1.201	427	0	116.0	137.4	1080.530	F
	4 - Swale Way	631	158	448	626	1.008	623	1305	87.3	89.3	516.792	F
	5 - Grovehurst Road	549	137	701	585	0.938	574	370	53.2	46.9	314.067	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	658	164	431	823	0.800	812	0	74.7	36.2	248.929	F

1 - North	2 - Grovehurst Road	331	83	1071	424	0.782	412	173	35.6	15.4	229.602	F
	3 - A249 onslip (NB)			1162				321				
	4 - B2005 - link	431	108	0	1530	0.282	431	1162	0.4	0.4	3.277	A
2 - South	1 - A249 onslip (SB)			595				679				
	2 - B2005 - link	1164	291	162	1748	0.666	1164	432	2.0	2.0	6.168	A
	3 - A249 offslip (SB)	429	107	1326	427	1.005	426	0	137.4	138.2	1171.972	F
	4 - Swale Way	529	132	447	626	0.844	619	1305	89.3	66.6	454.629	F
	5 - Grovehurst Road	460	115	697	588	0.782	576	369	46.9	17.9	208.100	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.78	0.06	1.03	7.39	11.17			N/A	N/A
	2 - Grovehurst Road	1.36	0.05	0.45	3.48	5.53			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.09	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.89	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	3.58	0.04	0.39	9.50	18.98			N/A	N/A
	5 - Grovehurst Road	2.00	0.06	0.98	4.94	7.26			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	8.72	0.19	4.31	21.87	30.18			N/A	N/A
	2 - Grovehurst Road	4.34	0.08	1.26	11.54	16.90			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.61	0.07	1.02	3.62	5.01			N/A	N/A
	3 - A249 offslip (SB)	13.21	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	12.98	0.27	6.90	32.39	44.31			N/A	N/A
	5 - Grovehurst Road	6.21	0.15	2.85	15.58	21.66			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	45.58	17.49	42.10	72.40	83.01			N/A	N/A
	2 - Grovehurst Road	22.68	5.55	19.67	39.93	47.42			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.97	0.03	0.27	1.97	1.97			N/A	N/A
	3 - A249 offslip (SB)	63.71	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	50.50	19.52	46.72	80.11	91.78			N/A	N/A
	5 - Grovehurst Road	30.34	9.10	27.09	51.28	60.00			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	81.38	39.30	77.39	120.10	134.52			N/A	N/A
	2 - Grovehurst Road	39.95	13.35	36.25	65.94	76.52			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.30	1.26	1.66			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.02	0.03	0.26	2.02	2.02			N/A	N/A
	3 - A249 offslip (SB)	116.00	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	87.34	45.34	83.69	125.35	139.23			N/A	N/A
	5 - Grovehurst Road	53.17	20.57	49.21	84.36	96.64			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	74.72	29.62	69.50	118.08	135.00			N/A	N/A
	2 - Grovehurst Road	35.62	8.25	30.82	64.31	76.81			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.01	0.18	1.10	3.77	4.83			N/A	N/A
	3 - A249 offslip (SB)	137.44	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	89.28	41.54	84.61	133.69	150.35			N/A	N/A
	5 - Grovehurst Road	46.87	13.81	41.92	80.31	94.24			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	36.19	8.74	31.49	64.72	77.04			N/A	N/A
	2 - Grovehurst Road	15.40	0.98	10.55	34.20	44.24			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.01	0.48	1.31	3.21	3.91			N/A	N/A
	3 - A249 offslip (SB)	138.22	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	66.61	20.30	59.96	113.63	133.03			N/A	N/A
	5 - Grovehurst Road	17.88	1.78	13.80	36.30	45.29			N/A	N/A

# 2024 + K3 and WKN Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	282.17	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1750.21	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	838	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	444	100.000
	4 - Swale Way		ONE HOUR	✓	1300	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From				
	1 - A249 offslip (NB)	0	180	0	658
	2 - Grovehurst Road	0	0	27	200
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	262	523	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	490	322
	3 - A249 offslip (SB)	1	27	0	200	216
	4 - Swale Way	708	433	0	0	159
	5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	23
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	30	1
	3 - A249 offslip (SB)	0	11	0	8	4
	4 - Swale Way	20	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.27	512.52	109.4	171.0	F	769	1153
	2 - Grovehurst Road	0.49	13.84	0.9	3.5	B	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.60	0.6	2.2	A	539	808
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.46	3.90	0.8	1.4	A	750	1126
	3 - A249 offslip (SB)	0.66	14.11	1.9	6.2	B	407	611
	4 - Swale Way	2.29	4103.27	804.9	178.2	F	1193	1789
	5 - Grovehurst Road	0.86	34.20	5.3	28.4	D	490	735

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	631	158	491	796	0.793	617	0	0.0	3.5	18.913	C
	2 - Grovehurst Road	171	43	811	613	0.279	169	296	0.0	0.4	8.088	A

	3 - A249 onslip (NB)			634				347					
	4 - B2005 - link	493	123	0	1591	0.310		491	634	0.0	0.4	3.267	A
2 - South	1 - A249 onslip (SB)			567					494				
	2 - B2005 - link	634	159	79	1731	0.367		632	488	0.0	0.6	3.269	A
	3 - A249 offslip (SB)	334	84	711	899	0.372		332	0	0.0	0.6	6.328	A
	4 - Swale Way	979	245	452	708	1.382		698	591	0.0	70.2	192.834	F
	5 - Grovehurst Road	402	101	665	655	0.614		396	485	0.0	1.5	13.592	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	753	188	533	768	0.981	719	0	3.5	12.1	52.722	F
	2 - Grovehurst Road	204	51	919	538	0.379	203	332	0.4	0.6	10.709	B
	3 - A249 onslip (NB)			743				379				
	4 - B2005 - link	533	133	0	1591	0.335	533	743	0.4	0.5	3.402	A
2 - South	1 - A249 onslip (SB)			623				496				
	2 - B2005 - link	744	186	95	1722	0.432	743	529	0.6	0.8	3.675	A
	3 - A249 offslip (SB)	399	100	837	795	0.502	398	0	0.6	1.0	9.016	A
	4 - Swale Way	1169	292	535	662	1.764	662	700	70.2	196.8	755.385	F
	5 - Grovehurst Road	480	120	643	670	0.716	477	554	1.5	2.4	18.255	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	923	231	586	732	1.261	728	0	12.1	60.6	193.485	F
	2 - Grovehurst Road	250	62	963	511	0.489	249	352	0.6	0.9	13.624	B
	3 - A249 onslip (NB)			791				420				
	4 - B2005 - link	587	147	0	1591	0.369	586	791	0.5	0.6	3.585	A
2 - South	1 - A249 onslip (SB)			697				500				
	2 - B2005 - link	786	196	115	1711	0.459	785	582	0.8	0.8	3.887	A
	3 - A249 offslip (SB)	489	122	900	745	0.656	485	0	1.0	1.8	13.680	B
	4 - Swale Way	1431	358	602	626	2.287	626	784	196.8	398.1	1716.863	F
	5 - Grovehurst Road	588	147	618	687	0.855	578	609	2.4	4.9	30.320	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	923	231	592	728	1.267	728	0	60.6	109.4	423.936	F
	2 - Grovehurst Road	250	62	966	510	0.490	250	354	0.9	0.9	13.842	B
	3 - A249 onslip (NB)			792				424				
	4 - B2005 - link	592	148	0	1591	0.372	592	792	0.6	0.6	3.602	A
2 - South	1 - A249 onslip (SB)			703				501				
	2 - B2005 - link	786	197	116	1710	0.460	786	587	0.8	0.8	3.896	A
	3 - A249 offslip (SB)	489	122	903	743	0.658	489	0	1.8	1.9	14.105	B
	4 - Swale Way	1431	358	604	625	2.291	625	788	398.1	599.8	2765.090	F
	5 - Grovehurst Road	588	147	618	688	0.855	586	611	4.9	5.3	34.205	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	753	188	539	764	0.987	756	0	109.4	108.6	512.516	F
	2 - Grovehurst Road	204	51	953	515	0.396	205	342	0.9	0.7	11.666	B
	3 - A249 onslip (NB)			775				383				
	4 - B2005 - link	539	135	0	1591	0.339	539	775	0.6	0.5	3.422	A
2 - South	1 - A249 onslip (SB)			632				496				
	2 - B2005 - link	776	194	97	1721	0.451	776	534	0.8	0.8	3.812	A
	3 - A249 offslip (SB)	399	100	873	766	0.521	402	0	1.9	1.1	9.982	A
	4 - Swale Way	1169	292	552	653	1.788	653	724	599.8	728.6	3582.405	F
	5 - Grovehurst Road	480	120	637	674	0.712	491	568	5.3	2.6	20.558	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	631	158	491	796	0.793	788	0	108.6	69.3	407.949	F

1 - North	2 - Grovehurst Road	171	43	946	516	0.331	172	333	0.7	0.5	10.474	B
	3 - A249 onslip (NB)			770				348				
	4 - B2005 - link	491	123	0	1591	0.308	491	770	0.5	0.4	3.276	A
2 - South	1 - A249 onslip (SB)			567				490				
	2 - B2005 - link	777	194	81	1730	0.449	777	487	0.8	0.8	3.779	A
	3 - A249 offslip (SB)	334	84	857	777	0.430	336	0	1.1	0.8	8.175	A
	4 - Swale Way	979	245	516	674	1.453	674	677	728.6	804.9	4103.275	F
	5 - Grovehurst Road	402	101	651	665	0.604	406	539	2.6	1.6	14.124	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.45	0.05	0.47	9.73	16.63			N/A	N/A
	2 - Grovehurst Road	0.38	0.00	0.00	0.38	0.38			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.58	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.59	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	70.18	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.53	1.05	1.50	1.90	1.95			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	12.08	0.30	6.74	29.49	39.93			N/A	N/A
	2 - Grovehurst Road	0.60	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.75	0.21	0.94	1.39	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.99	0.09	0.93	1.61	1.93			N/A	N/A
	4 - Swale Way	196.75	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.37	0.09	1.43	5.44	7.51			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	60.64	28.67	57.44	89.89	100.85			N/A	N/A
	2 - Grovehurst Road	0.93	0.03	0.26	0.93	0.93			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.58	0.03	0.25	0.58	0.58			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.03	0.25	0.84	0.84			N/A	N/A
	3 - A249 offslip (SB)	1.83	0.03	0.28	1.83	6.20			N/A	N/A
	4 - Swale Way	398.14	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.86	0.04	0.44	13.63	25.05			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	109.37	64.46	106.13	148.89	162.81			N/A	N/A
	2 - Grovehurst Road	0.95	0.03	0.28	0.95	3.46			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.28	0.71	2.23			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.03	0.26	0.85	0.85			N/A	N/A
	3 - A249 offslip (SB)	1.88	0.03	0.28	1.88	4.64			N/A	N/A
	4 - Swale Way	599.81	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.26	0.03	0.34	10.47	28.39			N/A	N/A



## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	108.65	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.67	0.08	0.78	1.37	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.83	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.11	0.07	0.89	2.03	2.84			N/A	N/A
	4 - Swale Way	728.60	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.63	0.04	0.43	7.25	12.91			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	69.28	24.62	63.59	113.25	130.86			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.45	1.28	1.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.82	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.77	0.05	0.47	1.54	2.13			N/A	N/A
	4 - Swale Way	804.87	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.58	0.03	0.35	3.84	8.12			N/A	N/A

# 2024 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	310.25	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	514.90	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	906	100.000
	2 - Grovehurst Road		ONE HOUR	✓	446	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	593	100.000
	4 - Swale Way		ONE HOUR	✓	693	100.000
	5 - Grovehurst Road		ONE HOUR	✓	736	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	45	0	861
		2 - Grovehurst Road	0	0	25	421
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	151	366	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	144	0	0	911	225
		3 - A249 offslip (SB)	1	18	0	377	197
		4 - Swale Way	390	226	0	0	77
5 - Grovehurst Road	287	277	0	172	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	13	0	17
		2 - Grovehurst Road	0	0	8	4
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	4	6	0		

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	2	0	0	16	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	39	10	0	0	9
5 - Grovehurst Road	1	1	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.20	410.42	95.2	157.7	F	831	1247
	2 - Grovehurst Road	1.19	404.76	46.7	87.3	F	409	614
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.28	3.26	0.4	1.7	A	425	638
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.06	2.0	5.0	A	1125	1688
	3 - A249 offslip (SB)	1.49	1201.20	147.6	186.5	F	544	816
	4 - Swale Way	1.27	598.86	101.3	166.2	F	636	954
	5 - Grovehurst Road	1.34	772.84	135.8	200.0	F	675	1013

## Main Results for each time segment

07:15 - 07:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	682	171	379	873	0.781	669	0	0.0	3.3	16.710	C
	2 - Grovehurst Road	336	84	904	539	0.623	329	144	0.0	1.6	16.706	C
	3 - A249 onslip (NB)			947				287				
	4 - B2005 - link	380	95	0	1539	0.247	379	947	0.0	0.3	3.100	A
2 - South	1 - A249 onslip (SB)			507				602				
	2 - B2005 - link	947	237	126	1781	0.532	943	381	0.0	1.1	4.273	A
	3 - A249 offslip (SB)	446	112	1069	634	0.704	438	0	0.0	2.2	17.630	C
	4 - Swale Way	522	130	431	636	0.820	506	1075	0.0	3.9	25.313	D
	5 - Grovehurst Road	554	139	570	687	0.806	539	367	0.0	3.7	22.579	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	814	204	428	839	0.971	781	0	3.3	11.5	46.766	E
	2 - Grovehurst Road	401	100	1046	447	0.896	385	164	1.6	5.6	48.610	E
	3 - A249 onslip (NB)			1106				325				
	4 - B2005 - link	428	107	0	1539	0.278	428	1106	0.3	0.4	3.240	A
2 - South	1 - A249 onslip (SB)			570				685				
	2 - B2005 - link	1106	277	141	1772	0.624	1104	430	1.1	1.6	5.374	A
	3 - A249 offslip (SB)	533	133	1245	496	1.074	474	0	2.2	16.9	93.295	F
	4 - Swale Way	623	156	491	607	1.027	578	1228	3.9	15.1	76.310	F
	5 - Grovehurst Road	662	165	654	625	1.058	602	416	3.7	18.6	84.121	F

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	998	249	436	833	1.197	828	0	11.5	53.9	155.428	F
	2 - Grovehurst Road	491	123	1096	414	1.185	407	168	5.6	26.6	164.477	F
	3 - A249 onslip (NB)			1171				331				
	4 - B2005 - link	436	109	0	1539	0.283	436	1171	0.4	0.4	3.262	A
2 - South	1 - A249 onslip (SB)			578				706				
	2 - B2005 - link	1172	293	141	1772	0.661	1171	437	1.6	1.9	5.977	A
	3 - A249 offslip (SB)	653	163	1312	444	1.472	443	0	16.9	69.5	369.320	F
	4 - Swale Way	763	191	499	603	1.266	600	1256	15.1	55.7	227.399	F
	5 - Grovehurst Road	810	203	680	606	1.337	605	420	18.6	70.0	277.697	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	998	249	436	833	1.198	832	0	53.9	95.2	331.844	F
	2 - Grovehurst Road	491	123	1100	412	1.192	410	169	26.6	46.7	338.141	F
	3 - A249 onslip (NB)			1178				332				
	4 - B2005 - link	436	109	0	1539	0.283	436	1178	0.4	0.4	3.263	A
2 - South	1 - A249 onslip (SB)			578				708				
	2 - B2005 - link	1179	295	141	1772	0.665	1179	437	1.9	2.0	6.063	A
	3 - A249 offslip (SB)	653	163	1320	438	1.492	437	0	69.5	123.3	804.355	F
	4 - Swale Way	763	191	499	603	1.266	602	1258	55.7	96.0	464.505	F
	5 - Grovehurst Road	810	203	682	604	1.341	604	419	70.0	121.5	580.583	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	814	204	436	833	0.978	824	0	95.2	92.7	410.421	F
	2 - Grovehurst Road	401	100	1092	417	0.962	417	168	46.7	42.8	404.756	F
	3 - A249 onslip (NB)			1177				332				
	4 - B2005 - link	436	109	0	1539	0.283	436	1177	0.4	0.4	3.263	A
2 - South	1 - A249 onslip (SB)			578				707				
	2 - B2005 - link	1177	294	141	1772	0.664	1177	437	2.0	2.0	6.047	A
	3 - A249 offslip (SB)	533	133	1318	439	1.214	439	0	123.3	146.9	1116.227	F
	4 - Swale Way	623	156	499	603	1.034	601	1258	96.0	101.3	598.864	F
	5 - Grovehurst Road	662	165	681	605	1.094	605	419	121.5	135.8	772.837	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	682	171	434	834	0.818	825	0	92.7	57.0	328.540	F
	2 - Grovehurst Road	336	84	1092	417	0.805	407	168	42.8	24.9	303.092	F
	3 - A249 onslip (NB)			1169				330				
	4 - B2005 - link	434	109	0	1539	0.282	434	1169	0.4	0.4	3.258	A
2 - South	1 - A249 onslip (SB)			577				704				
	2 - B2005 - link	1169	292	141	1772	0.660	1169	435	2.0	2.0	5.974	A
	3 - A249 offslip (SB)	446	112	1311	445	1.004	444	0	146.9	147.6	1201.201	F
	4 - Swale Way	522	130	499	603	0.866	597	1256	101.3	82.6	555.542	F
	5 - Grovehurst Road	554	139	676	609	0.911	604	419	135.8	123.3	772.495	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.28	0.05	0.50	9.22	15.32			N/A	N/A
	2 - Grovehurst Road	1.57	0.04	0.38	4.05	7.70			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.13	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	2.23	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	3.89	0.03	0.34	7.82	20.93			N/A	N/A
	5 - Grovehurst Road	3.66	0.03	0.27	3.66	3.66			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	11.53	0.29	6.39	28.19	38.21			N/A	N/A
	2 - Grovehurst Road	5.61	0.10	1.84	14.93	21.72			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.64	0.07	1.06	3.65	5.04			N/A	N/A
	3 - A249 offslip (SB)	16.90	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	15.06	0.22	7.20	39.05	54.54			N/A	N/A
	5 - Grovehurst Road	18.56	0.09	3.65	54.16	84.91			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	53.85	22.53	50.29	83.27	94.64			N/A	N/A
	2 - Grovehurst Road	26.58	7.47	23.52	45.54	53.56			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.92	0.03	0.27	1.92	1.92			N/A	N/A
	3 - A249 offslip (SB)	69.48	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	55.73	20.69	51.35	89.65	103.11			N/A	N/A
	5 - Grovehurst Road	69.99	19.82	62.44	121.82	143.55			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	95.21	50.14	91.39	135.93	150.75			N/A	N/A
	2 - Grovehurst Road	46.75	18.31	43.29	73.74	84.36			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.30	1.22	1.71			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.96	0.03	0.26	1.96	1.96			N/A	N/A
	3 - A249 offslip (SB)	123.33	>199	>199	>199	>199			N/A	N/A

	4 - Swale Way	95.95	50.46	92.10	137.09	152.05			N/A	N/A
	5 - Grovehurst Road	121.54	>199	>199	>199	>199			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	92.75	42.29	87.71	139.92	157.69			N/A	N/A
	2 - Grovehurst Road	42.77	11.96	37.97	74.14	87.34			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.97	0.18	1.06	3.67	4.70			N/A	N/A
	3 - A249 offslip (SB)	146.87	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	101.34	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	135.80	>199	>199	>199	>199			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	56.97	15.23	50.38	100.32	118.68			N/A	N/A
	2 - Grovehurst Road	24.85	1.76	18.36	53.13	67.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.96	0.45	1.26	3.10	3.83			N/A	N/A
	3 - A249 offslip (SB)	147.56	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	82.55	30.38	76.15	133.71	153.99			N/A	N/A
	5 - Grovehurst Road	123.31	>199	>199	>199	>199			N/A	N/A

# 2024 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	391.25	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1856.75	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	899	100.000
	2 - Grovehurst Road		ONE HOUR	✓	235	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	482	100.000
	4 - Swale Way		ONE HOUR	✓	1279	100.000
	5 - Grovehurst Road		ONE HOUR	✓	595	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	183	0	716
		2 - Grovehurst Road	0	0	27	208
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	264	541	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	45	0	0	482	393
		3 - A249 offslip (SB)	1	27	0	199	255
		4 - Swale Way	688	432	0	0	159
5 - Grovehurst Road	150	339	0	106	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	2	0	20
		2 - Grovehurst Road	0	0	0	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	0	3	0		

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	9	0	0	29	2
		3 - A249 offslip (SB)	0	11	0	8	3
		4 - Swale Way	19	3	0	0	3
5 - Grovehurst Road	1	2	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.35	702.26	156.1	200.0	F	825	1237
	2 - Grovehurst Road	0.52	14.88	1.1	3.5	B	216	323
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.38	3.63	0.6	2.2	A	546	819
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.47	3.89	0.9	1.5	A	775	1163
	3 - A249 offslip (SB)	0.72	16.99	2.4	11.0	C	442	663
	4 - Swale Way	2.44	4558.67	842.4	179.2	F	1174	1760
	5 - Grovehurst Road	0.91	48.91	8.3	43.7	E	546	819

## Main Results for each time segment

16:15 - 16:30

	Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay



Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	677	169	495	806	0.840	659	0	0.0	4.5	22.361	C
	2 - Grovehurst Road	177	44	858	584	0.303	175	297	0.0	0.4	8.760	A
	3 - A249 onslip (NB)			680				353				
	4 - B2005 - link	497	124	0	1590	0.313	495	680	0.0	0.5	3.282	A
2 - South	1 - A249 onslip (SB)			572				499				
	2 - B2005 - link	676	169	78	1749	0.387	674	493	0.0	0.6	3.342	A
	3 - A249 offslip (SB)	363	91	752	876	0.414	360	0	0.0	0.7	6.944	A
	4 - Swale Way	963	241	532	666	1.445	658	580	0.0	76.3	222.167	F
	5 - Grovehurst Road	448	112	630	679	0.659	441	560	0.0	1.8	14.669	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	808	202	538	777	1.041	749	0	4.5	19.3	72.755	F
	2 - Grovehurst Road	211	53	958	517	0.408	210	329	0.4	0.7	11.691	B
	3 - A249 onslip (NB)			783				386				
	4 - B2005 - link	538	135	0	1590	0.339	538	783	0.5	0.5	3.421	A
2 - South	1 - A249 onslip (SB)			629				504				
	2 - B2005 - link	777	194	94	1740	0.447	777	534	0.6	0.8	3.736	A
	3 - A249 offslip (SB)	433	108	871	779	0.556	431	0	0.7	1.2	10.289	B
	4 - Swale Way	1150	287	623	616	1.866	616	679	76.3	209.7	874.018	F
	5 - Grovehurst Road	535	134	603	698	0.766	530	637	1.8	3.0	20.854	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	990	247	592	740	1.338	738	0	19.3	82.2	259.798	F
	2 - Grovehurst Road	259	65	986	501	0.516	257	345	0.7	1.0	14.663	B
	3 - A249 onslip (NB)			816				428				
	4 - B2005 - link	593	148	0	1590	0.373	592	816	0.5	0.6	3.607	A
2 - South	1 - A249 onslip (SB)			702				512				
	2 - B2005 - link	805	201	114	1729	0.466	805	588	0.8	0.9	3.893	A
	3 - A249 offslip (SB)	531	133	919	742	0.716	526	0	1.2	2.4	16.355	C
	4 - Swale Way	1408	352	692	578	2.436	578	753	209.7	417.2	1954.936	F
	5 - Grovehurst Road	655	164	576	716	0.915	638	694	3.0	7.2	39.335	E

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	990	247	600	735	1.347	734	0	82.2	146.0	558.320	F
	2 - Grovehurst Road	259	65	988	500	0.517	259	346	1.0	1.1	14.875	B
	3 - A249 onslip (NB)			814				433				
	4 - B2005 - link	600	150	0	1590	0.377	600	814	0.6	0.6	3.633	A
2 - South	1 - A249 onslip (SB)			711				515				
	2 - B2005 - link	803	201	116	1728	0.465	803	595	0.9	0.9	3.891	A
	3 - A249 offslip (SB)	531	133	919	741	0.716	530	0	2.4	2.4	16.995	C
	4 - Swale Way	1408	352	694	577	2.440	577	756	417.2	625.0	3081.710	F
	5 - Grovehurst Road	655	164	575	717	0.914	651	695	7.2	8.3	48.908	E

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	808	202	550	768	1.052	768	0	146.0	156.1	702.265	F
	2 - Grovehurst Road	211	53	981	502	0.421	212	337	1.1	0.7	12.494	B
	3 - A249 onslip (NB)			800				394				
	4 - B2005 - link	550	138	0	1590	0.346	550	800	0.6	0.5	3.461	A
2 - South	1 - A249 onslip (SB)			645				507				
	2 - B2005 - link	795	199	99	1738	0.457	795	546	0.9	0.8	3.820	A
	3 - A249 offslip (SB)	433	108	893	761	0.569	438	0	2.4	1.4	11.275	B
	4 - Swale Way	1150	287	635	610	1.886	610	696	625.0	760.0	3975.307	F
	5 - Grovehurst Road	535	134	598	701	0.763	554	647	8.3	3.5	26.910	D

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	677	169	497	804	0.841	799	0	156.1	125.5	634.914	F
	2 - Grovehurst Road	177	44	971	506	0.350	178	326	0.7	0.5	11.005	B
	3 - A249 onslip (NB)			794				355				
	4 - B2005 - link	497	124	0	1590	0.313	497	794	0.5	0.5	3.296	A
2 - South	1 - A249 onslip (SB)			574				495				
	2 - B2005 - link	794	198	81	1747	0.454	794	493	0.8	0.8	3.773	A
	3 - A249 offslip (SB)	363	91	875	775	0.468	365	0	1.4	0.9	8.813	A
	4 - Swale Way	963	241	592	634	1.520	634	647	760.0	842.4	4558.672	F
	5 - Grovehurst Road	448	112	615	690	0.650	454	611	3.5	1.9	15.680	C

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.49	0.03	0.34	9.19	24.24			N/A	N/A
	2 - Grovehurst Road	0.43	0.00	0.00	0.43	0.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.63	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.70	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	76.28	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.85	0.71	1.39	1.98	2.44			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	19.28	0.40	10.86	47.71	64.73			N/A	N/A
	2 - Grovehurst Road	0.68	0.24	0.94	1.39	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.80	0.22	0.94	1.40	1.46			N/A	N/A
	3 - A249 offslip (SB)	1.22	0.08	0.99	2.30	2.99			N/A	N/A
	4 - Swale Way	209.67	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.01	0.10	1.21	7.19	9.99			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	82.18	39.78	78.17	121.18	135.70			N/A	N/A
	2 - Grovehurst Road	1.03	0.03	0.27	1.03	1.10			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.25	0.59	0.59			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.86	0.03	0.25	0.86	0.86			N/A	N/A
	3 - A249 offslip (SB)	2.37	0.03	0.30	2.59	10.98			N/A	N/A
	4 - Swale Way	417.21	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	7.21	0.07	1.16	20.67	32.46			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	146.02	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.05	0.03	0.28	1.05	3.52			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.03	0.28	0.66	2.22			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.87	0.03	0.26	0.87	0.87			N/A	N/A
	3 - A249 offslip (SB)	2.44	0.03	0.28	2.44	7.35			N/A	N/A

	4 - Swale Way	624.98	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	8.29	0.05	0.47	23.34	43.66			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	156.12	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.74	0.08	0.79	1.07	1.07			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.36	0.06	0.74	3.10	4.57			N/A	N/A
	4 - Swale Way	760.04	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.52	0.04	0.43	9.75	17.88			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	125.49	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.55	0.05	0.47	1.32	1.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.46	0.00	0.00	0.46	0.46			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.90	0.04	0.41	2.07	3.40			N/A	N/A
	4 - Swale Way	842.37	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.93	0.03	0.34	4.37	10.16			N/A	N/A

# 2024 + WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	335.75	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	533.02	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2024 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	914	100.000
	2 - Grovehurst Road		ONE HOUR	✓	446	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	593	100.000
	4 - Swale Way		ONE HOUR	✓	701	100.000
	5 - Grovehurst Road		ONE HOUR	✓	736	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	45	0	869
		2 - Grovehurst Road	0	0	25	421
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	151	366	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	144	0	0	918	225
		3 - A249 offslip (SB)	1	18	0	377	197
		4 - Swale Way	398	226	0	0	77
5 - Grovehurst Road	287	277	0	172	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	13	0	18
		2 - Grovehurst Road	0	0	8	4
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	4	6	0		

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	2	0	0	17	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	40	10	0	0	9
5 - Grovehurst Road	1	1	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.21	452.31	103.0	170.2	F	839	1258
	2 - Grovehurst Road	1.19	413.00	47.4	89.8	F	409	614
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.28	3.25	0.4	1.7	A	422	634
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.13	2.0	5.2	A	1122	1684
	3 - A249 offslip (SB)	1.50	1225.89	150.0	186.5	F	544	816
	4 - Swale Way	1.28	646.39	110.1	178.3	F	643	965
	5 - Grovehurst Road	1.34	786.06	137.6	200.0	F	675	1013

## Main Results for each time segment

07:15 - 07:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	688	172	378	866	0.794	674	0	0.0	3.5	17.625	C
	2 - Grovehurst Road	336	84	909	532	0.631	329	144	0.0	1.6	17.224	C
	3 - A249 onslip (NB)			952				286				
	4 - B2005 - link	380	95	0	1539	0.247	378	952	0.0	0.3	3.099	A
2 - South	1 - A249 onslip (SB)			507				607				
	2 - B2005 - link	952	238	126	1769	0.538	947	381	0.0	1.2	4.355	A
	3 - A249 offslip (SB)	446	112	1073	625	0.714	437	0	0.0	2.3	18.317	C
	4 - Swale Way	528	132	431	633	0.834	511	1080	0.0	4.2	26.746	D
	5 - Grovehurst Road	554	139	575	681	0.813	539	367	0.0	3.8	23.322	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	822	205	426	834	0.986	784	0	3.5	12.9	51.089	F
	2 - Grovehurst Road	401	100	1047	442	0.906	384	163	1.6	5.9	51.001	F
	3 - A249 onslip (NB)			1108				323				
	4 - B2005 - link	426	106	0	1539	0.277	426	1108	0.3	0.4	3.232	A
2 - South	1 - A249 onslip (SB)			567				688				
	2 - B2005 - link	1108	277	140	1761	0.629	1106	427	1.2	1.7	5.474	A
	3 - A249 offslip (SB)	533	133	1246	490	1.088	470	0	2.3	18.0	98.921	F
	4 - Swale Way	630	158	488	605	1.042	580	1228	4.2	16.7	82.548	F
	5 - Grovehurst Road	662	165	655	621	1.065	600	413	3.8	19.3	87.103	F

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1006	252	432	829	1.214	825	0	12.9	58.4	168.603	F
	2 - Grovehurst Road	491	123	1090	413	1.188	406	167	5.9	27.1	168.184	F
	3 - A249 onslip (NB)			1168				329				
	4 - B2005 - link	433	108	0	1539	0.281	432	1168	0.4	0.4	3.252	A
2 - South	1 - A249 onslip (SB)			575				707				
	2 - B2005 - link	1168	292	141	1761	0.663	1167	434	1.7	1.9	6.049	A
	3 - A249 offslip (SB)	653	163	1308	441	1.480	440	0	18.0	71.2	382.609	F
	4 - Swale Way	772	193	495	601	1.284	599	1253	16.7	59.9	244.705	F
	5 - Grovehurst Road	810	203	678	604	1.341	603	416	19.3	71.1	283.729	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1006	252	433	829	1.215	828	0	58.4	103.0	359.895	F
	2 - Grovehurst Road	491	123	1093	411	1.194	410	167	27.1	47.4	343.483	F
	3 - A249 onslip (NB)			1174				329				
	4 - B2005 - link	433	108	0	1539	0.281	433	1174	0.4	0.4	3.253	A
2 - South	1 - A249 onslip (SB)			575				708				
	2 - B2005 - link	1174	293	141	1761	0.667	1174	434	1.9	2.0	6.128	A
	3 - A249 offslip (SB)	653	163	1315	436	1.498	436	0	71.2	125.5	821.289	F
	4 - Swale Way	772	193	495	601	1.284	601	1255	59.9	102.6	497.591	F
	5 - Grovehurst Road	810	203	680	603	1.344	603	416	71.1	123.0	589.382	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	822	205	433	828	0.992	822	0	103.0	103.0	452.309	F
	2 - Grovehurst Road	401	100	1088	415	0.965	411	167	47.4	44.9	413.003	F
	3 - A249 onslip (NB)			1169				330				
	4 - B2005 - link	433	108	0	1539	0.281	433	1169	0.4	0.4	3.253	A
2 - South	1 - A249 onslip (SB)			575				708				
	2 - B2005 - link	1168	292	141	1761	0.664	1168	434	2.0	2.0	6.076	A
	3 - A249 offslip (SB)	533	133	1309	440	1.212	440	0	125.5	148.8	1132.566	F
	4 - Swale Way	630	158	495	601	1.048	600	1254	102.6	110.1	646.386	F
	5 - Grovehurst Road	662	165	679	604	1.096	603	416	123.0	137.6	784.124	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	688	172	431	830	0.829	822	0	103.0	69.6	379.733	F
	2 - Grovehurst Road	336	84	1086	416	0.807	407	166	44.9	27.1	322.705	F
	3 - A249 onslip (NB)			1165				328				
	4 - B2005 - link	431	108	0	1539	0.280	431	1165	0.4	0.4	3.248	A
2 - South	1 - A249 onslip (SB)			573				704				
	2 - B2005 - link	1165	291	141	1761	0.662	1165	432	2.0	2.0	6.044	A
	3 - A249 offslip (SB)	446	112	1306	443	1.009	442	0	148.8	150.0	1225.893	F
	4 - Swale Way	528	132	495	601	0.878	596	1253	110.1	93.1	614.462	F
	5 - Grovehurst Road	554	139	675	607	0.913	603	416	137.6	125.4	786.063	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.50	0.04	0.44	9.78	17.67			N/A	N/A
	2 - Grovehurst Road	1.62	0.04	0.37	4.13	8.05			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.15	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	2.32	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	4.20	0.03	0.32	6.48	21.34			N/A	N/A
	5 - Grovehurst Road	3.79	0.03	0.27	3.79	3.79			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	12.94	0.30	7.16	31.81	43.18			N/A	N/A
	2 - Grovehurst Road	5.92	0.10	2.01	15.72	22.76			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.67	0.07	1.07	3.72	5.18			N/A	N/A
	3 - A249 offslip (SB)	18.04	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	16.71	0.20	7.51	44.16	62.37			N/A	N/A
	5 - Grovehurst Road	19.29	0.09	3.87	56.27	88.03			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	58.35	25.03	54.68	89.59	101.60			N/A	N/A
	2 - Grovehurst Road	27.06	7.64	23.96	46.33	54.46			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.93	0.03	0.27	1.93	1.93			N/A	N/A
	3 - A249 offslip (SB)	71.19	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	59.85	21.48	54.95	97.36	112.35			N/A	N/A
	5 - Grovehurst Road	71.10	19.73	63.25	124.32	146.68			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	102.97	56.20	99.21	144.92	160.03			N/A	N/A
	2 - Grovehurst Road	47.36	18.71	43.91	74.54	85.21			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.30	1.22	1.68			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.97	0.03	0.26	1.97	1.97			N/A	N/A
	3 - A249 offslip (SB)	125.51	>199	>199	>199	>199			N/A	N/A

	4 - Swale Way	102.62	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	122.98	>199	>199	>199	>199			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	103.01	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	44.91	13.40	40.22	76.60	89.76			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.97	0.16	1.04	3.75	4.82			N/A	N/A
	3 - A249 offslip (SB)	148.85	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	110.08	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	137.56	>199	>199	>199	>199			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	69.63	21.27	62.71	118.75	138.99			N/A	N/A
	2 - Grovehurst Road	27.13	2.44	20.66	56.73	71.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.97	0.40	1.25	3.20	3.91			N/A	N/A
	3 - A249 offslip (SB)	150.04	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	93.06	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	125.44	>199	>199	>199	>199			N/A	N/A



# 2024 + WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	418.27	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1916.98	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2024 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	906	100.000
	2 - Grovehurst Road		ONE HOUR	✓	235	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	483	100.000
	4 - Swale Way		ONE HOUR	✓	1297	100.000
	5 - Grovehurst Road		ONE HOUR	✓	595	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	183	0	723
		2 - Grovehurst Road	0	0	27	208
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	264	542	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	45	0	0	489	393
		3 - A249 offslip (SB)	1	27	0	200	255
		4 - Swale Way	706	432	0	0	159
5 - Grovehurst Road	150	339	0	106	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	2	0	21
		2 - Grovehurst Road	0	0	0	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	0	3	0		

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	9	0	0	30	2
		3 - A249 offslip (SB)	0	11	0	8	3
		4 - Swale Way	19	3	0	0	3
5 - Grovehurst Road	1	2	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.36	745.10	166.1	200.0	F	831	1247
	2 - Grovehurst Road	0.52	14.96	1.1	3.5	B	216	323
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.38	3.62	0.6	2.2	A	543	815
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.47	3.93	0.9	1.5	A	776	1164
	3 - A249 offslip (SB)	0.72	17.30	2.5	11.4	C	443	665
	4 - Swale Way	2.47	4675.35	865.9	179.0	F	1190	1785
	5 - Grovehurst Road	0.92	49.71	8.4	44.1	E	546	819

## Main Results for each time segment

16:15 - 16:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	682	171	492	802	0.850	663	0	0.0	4.8	23.393	C
	2 - Grovehurst Road	177	44	860	580	0.305	175	295	0.0	0.4	8.866	A
	3 - A249 onslip (NB)			684				351				
	4 - B2005 - link	494	124	0	1590	0.311	492	684	0.0	0.4	3.272	A
2 - South	1 - A249 onslip (SB)			569				503				
	2 - B2005 - link	682	170	78	1740	0.392	679	490	0.0	0.6	3.386	A
	3 - A249 offslip (SB)	364	91	758	868	0.419	361	0	0.0	0.7	7.054	A
	4 - Swale Way	976	244	532	666	1.467	658	586	0.0	79.7	231.803	F
	5 - Grovehurst Road	448	112	631	678	0.660	441	559	0.0	1.9	14.721	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	814	204	535	773	1.054	749	0	4.8	21.2	78.189	F
	2 - Grovehurst Road	211	53	958	514	0.411	210	327	0.4	0.7	11.814	B
	3 - A249 onslip (NB)			784				384				
	4 - B2005 - link	536	134	0	1590	0.337	535	784	0.4	0.5	3.412	A
2 - South	1 - A249 onslip (SB)			626				508				
	2 - B2005 - link	780	195	94	1731	0.450	779	532	0.6	0.8	3.780	A
	3 - A249 offslip (SB)	434	109	873	774	0.561	432	0	0.7	1.2	10.468	B
	4 - Swale Way	1166	291	621	617	1.891	617	684	79.7	217.1	905.872	F
	5 - Grovehurst Road	535	134	604	697	0.768	530	634	1.9	3.0	20.987	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	998	249	590	736	1.355	735	0	21.2	86.8	276.644	F
	2 - Grovehurst Road	259	65	983	500	0.518	257	342	0.7	1.0	14.752	B
	3 - A249 onslip (NB)			814				426				
	4 - B2005 - link	590	148	0	1590	0.371	590	814	0.5	0.6	3.598	A
2 - South	1 - A249 onslip (SB)			700				516				
	2 - B2005 - link	804	201	114	1720	0.468	804	586	0.8	0.9	3.929	A
	3 - A249 offslip (SB)	532	133	918	739	0.720	527	0	1.2	2.4	16.644	C
	4 - Swale Way	1428	357	689	579	2.465	579	756	217.1	429.2	2010.072	F
	5 - Grovehurst Road	655	164	578	715	0.917	638	690	3.0	7.3	39.800	E

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	998	249	597	731	1.364	731	0	86.8	153.5	589.743	F
	2 - Grovehurst Road	259	65	985	499	0.518	259	343	1.0	1.1	14.963	B
	3 - A249 onslip (NB)			812				431				
	4 - B2005 - link	597	149	0	1590	0.376	597	812	0.6	0.6	3.624	A
2 - South	1 - A249 onslip (SB)			709				519				
	2 - B2005 - link	802	201	116	1719	0.467	802	593	0.9	0.9	3.926	A
	3 - A249 offslip (SB)	532	133	918	739	0.720	532	0	2.4	2.5	17.304	C
	4 - Swale Way	1428	357	690	578	2.469	578	759	429.2	641.6	3157.251	F
	5 - Grovehurst Road	655	164	577	715	0.916	651	692	7.3	8.4	49.711	E

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	814	204	548	764	1.065	764	0	153.5	166.1	745.095	F
	2 - Grovehurst Road	211	53	978	500	0.422	213	334	1.1	0.7	12.561	B
	3 - A249 onslip (NB)			798				393				
	4 - B2005 - link	548	137	0	1590	0.344	548	798	0.6	0.5	3.457	A
2 - South	1 - A249 onslip (SB)			643				512				
	2 - B2005 - link	794	198	99	1728	0.459	794	544	0.9	0.9	3.854	A
	3 - A249 offslip (SB)	434	109	893	758	0.573	439	0	2.5	1.4	11.418	B
	4 - Swale Way	1166	291	632	611	1.909	611	699	641.6	780.4	4073.378	F
	5 - Grovehurst Road	535	134	600	700	0.765	554	643	8.4	3.6	27.330	D

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	682	171	495	801	0.852	796	0	166.1	137.7	687.750	F
	2 - Grovehurst Road	177	44	968	504	0.351	178	323	0.7	0.6	11.061	B
	3 - A249 onslip (NB)			792				353				
	4 - B2005 - link	495	124	0	1590	0.311	495	792	0.5	0.5	3.286	A
2 - South	1 - A249 onslip (SB)			572				499				
	2 - B2005 - link	793	198	81	1738	0.456	793	491	0.9	0.8	3.808	A
	3 - A249 offslip (SB)	364	91	874	772	0.471	366	0	1.4	0.9	8.900	A
	4 - Swale Way	976	244	589	635	1.539	635	651	780.4	865.9	4675.350	F
	5 - Grovehurst Road	448	112	617	688	0.651	454	607	3.6	1.9	15.797	C

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.76	0.03	0.33	8.21	24.92			N/A	N/A
	2 - Grovehurst Road	0.43	0.00	0.00	0.43	0.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.64	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.71	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	79.73	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.85	0.71	1.39	1.99	2.47			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	21.16	0.40	11.76	52.73	71.76			N/A	N/A
	2 - Grovehurst Road	0.68	0.25	0.94	1.39	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.22	0.94	1.40	1.46			N/A	N/A
	3 - A249 offslip (SB)	1.25	0.08	1.00	2.38	3.13			N/A	N/A
	4 - Swale Way	217.06	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.03	0.10	1.22	7.24	10.06			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	86.82	41.44	82.48	128.76	144.42			N/A	N/A
	2 - Grovehurst Road	1.04	0.03	0.27	1.04	1.19			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.25	0.59	0.59			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.87	0.03	0.25	0.87	0.87			N/A	N/A
	3 - A249 offslip (SB)	2.42	0.03	0.30	2.80	11.38			N/A	N/A
	4 - Swale Way	429.23	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	7.31	0.07	1.26	20.88	32.61			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	153.47	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.06	0.03	0.28	1.06	3.51			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.03	0.28	0.69	2.25			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.87	0.03	0.26	0.87	0.87			N/A	N/A
	3 - A249 offslip (SB)	2.49	0.03	0.28	2.49	7.65			N/A	N/A

	4 - Swale Way	641.63	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	8.43	0.05	0.47	23.85	44.13			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	166.08	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.75	0.08	0.79	1.14	1.14			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.38	0.06	0.72	3.22	4.73			N/A	N/A
	4 - Swale Way	780.44	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.56	0.04	0.43	9.86	18.08			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	137.67	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.55	0.05	0.47	1.32	1.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.91	0.04	0.41	2.14	3.52			N/A	N/A
	4 - Swale Way	865.89	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.95	0.03	0.34	4.39	10.23			N/A	N/A

# 2024 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	339.49	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	543.28	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	917	100.000
	2 - Grovehurst Road		ONE HOUR	✓	446	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	593	100.000
	4 - Swale Way		ONE HOUR	✓	704	100.000
	5 - Grovehurst Road		ONE HOUR	✓	736	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	45	0	872
		2 - Grovehurst Road	0	0	25	421
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	151	366	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	144	0	0	921	225
		3 - A249 offslip (SB)	1	18	0	377	197
		4 - Swale Way	401	226	0	0	77
5 - Grovehurst Road	287	277	0	172	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	13	0	18
		2 - Grovehurst Road	0	0	8	4
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	4	6	0		

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	2	0	0	17	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	41	10	0	0	9
5 - Grovehurst Road	1	1	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.22	457.43	104.3	171.9	F	841	1262
	2 - Grovehurst Road	1.19	415.27	47.5	90.8	F	409	614
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.28	3.25	0.4	1.7	A	421	631
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.14	2.0	5.2	A	1124	1686
	3 - A249 offslip (SB)	1.50	1235.42	151.0	186.5	F	544	816
	4 - Swale Way	1.29	676.35	115.3	186.0	F	646	969
	5 - Grovehurst Road	1.34	792.25	138.4	200.0	F	675	1013

## Main Results for each time segment

07:15 - 07:30

	Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	690	173	378	867	0.797	676	0	0.0	3.5	17.777	C
	2 - Grovehurst Road	336	84	911	531	0.632	329	144	0.0	1.6	17.322	C
	3 - A249 onslip (NB)			954				286				
	4 - B2005 - link	379	95	0	1539	0.246	378	954	0.0	0.3	3.098	A
2 - South	1 - A249 onslip (SB)			506				609				
	2 - B2005 - link	954	239	126	1769	0.539	949	381	0.0	1.2	4.367	A
	3 - A249 offslip (SB)	446	112	1075	624	0.716	437	0	0.0	2.3	18.460	C
	4 - Swale Way	530	133	431	630	0.842	513	1082	0.0	4.4	27.625	D
	5 - Grovehurst Road	554	139	576	678	0.817	539	367	0.0	3.9	23.739	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	824	206	424	835	0.988	786	0	3.5	13.2	51.680	F
	2 - Grovehurst Road	401	100	1048	442	0.908	384	162	1.6	6.0	51.366	F
	3 - A249 onslip (NB)			1109				322				
	4 - B2005 - link	424	106	0	1539	0.276	424	1109	0.3	0.4	3.228	A
2 - South	1 - A249 onslip (SB)			565				688				
	2 - B2005 - link	1110	277	140	1761	0.630	1108	426	1.2	1.7	5.490	A
	3 - A249 offslip (SB)	533	133	1247	489	1.091	469	0	2.3	18.3	100.175	F
	4 - Swale Way	633	158	488	602	1.052	579	1229	4.4	17.7	86.522	F
	5 - Grovehurst Road	662	165	655	620	1.068	598	412	3.9	19.7	88.620	F

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1010	252	431	830	1.216	826	0	13.2	59.0	170.268	F
	2 - Grovehurst Road	491	123	1090	413	1.188	406	166	6.0	27.1	168.786	F
	3 - A249 onslip (NB)			1169				328				
	4 - B2005 - link	431	108	0	1539	0.280	431	1169	0.4	0.4	3.246	A
2 - South	1 - A249 onslip (SB)			572				706				
	2 - B2005 - link	1169	292	141	1761	0.664	1168	432	1.7	1.9	6.063	A
	3 - A249 offslip (SB)	653	163	1309	440	1.483	439	0	18.3	71.7	386.544	F
	4 - Swale Way	775	194	494	599	1.295	597	1254	17.7	62.3	255.807	F
	5 - Grovehurst Road	810	203	676	604	1.342	602	415	19.7	71.6	286.645	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1010	252	431	830	1.217	829	0	59.0	104.1	363.334	F
	2 - Grovehurst Road	491	123	1094	411	1.194	410	167	27.1	47.5	344.519	F
	3 - A249 onslip (NB)			1175				328				
	4 - B2005 - link	431	108	0	1539	0.280	431	1175	0.4	0.4	3.247	A
2 - South	1 - A249 onslip (SB)			573				707				
	2 - B2005 - link	1175	294	141	1761	0.667	1175	432	1.9	2.0	6.142	A
	3 - A249 offslip (SB)	653	163	1316	435	1.502	435	0	71.7	126.3	827.057	F
	4 - Swale Way	775	194	494	599	1.295	598	1256	62.3	106.5	518.556	F
	5 - Grovehurst Road	810	203	678	603	1.345	602	415	71.6	123.6	593.488	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	824	206	431	830	0.994	824	0	104.1	104.3	457.426	F
	2 - Grovehurst Road	401	100	1088	415	0.967	408	166	47.5	45.8	415.274	F
	3 - A249 onslip (NB)			1168				328				
	4 - B2005 - link	431	108	0	1539	0.280	431	1168	0.4	0.4	3.248	A
2 - South	1 - A249 onslip (SB)			573				707				
	2 - B2005 - link	1168	292	141	1761	0.663	1168	432	2.0	2.0	6.073	A
	3 - A249 offslip (SB)	533	133	1309	440	1.211	440	0	126.3	149.5	1138.163	F
	4 - Swale Way	633	158	494	599	1.057	598	1255	106.5	115.3	676.345	F
	5 - Grovehurst Road	662	165	677	603	1.097	603	415	123.6	138.4	789.297	F

## 08:30 - 08:45



Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	690	173	429	831	0.831	823	0	104.3	71.1	385.170	F
	2 - Grovehurst Road	336	84	1087	416	0.808	407	166	45.8	28.0	330.445	F
	3 - A249 onslip (NB)			1167				327				
	4 - B2005 - link	429	107	0	1539	0.279	429	1167	0.4	0.4	3.243	A
2 - South	1 - A249 onslip (SB)			571				704				
	2 - B2005 - link	1167	292	141	1761	0.663	1167	430	2.0	2.0	6.061	A
	3 - A249 offslip (SB)	446	112	1307	441	1.011	441	0	149.5	151.0	1235.423	F
	4 - Swale Way	530	133	494	599	0.885	594	1254	115.3	99.4	651.621	F
	5 - Grovehurst Road	554	139	673	606	0.914	602	415	138.4	126.4	792.255	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.55	0.04	0.43	9.87	17.98			N/A	N/A
	2 - Grovehurst Road	1.63	0.04	0.37	4.14	8.17			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.16	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	2.34	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	4.37	0.03	0.31	5.37	20.93			N/A	N/A
	5 - Grovehurst Road	3.87	0.03	0.27	3.87	3.87			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	13.17	0.31	7.32	32.35	43.88			N/A	N/A
	2 - Grovehurst Road	5.97	0.10	2.02	15.86	22.98			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.68	0.07	1.07	3.75	5.21			N/A	N/A
	3 - A249 offslip (SB)	18.29	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	17.73	0.19	7.53	47.45	67.59			N/A	N/A
	5 - Grovehurst Road	19.66	0.09	4.00	57.31	89.52			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	59.04	25.42	55.35	90.52	102.60			N/A	N/A
	2 - Grovehurst Road	27.14	7.65	24.02	46.50	54.68			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.94	0.03	0.27	1.94	1.94			N/A	N/A
	3 - A249 offslip (SB)	71.69	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	62.28	21.64	56.97	102.34	118.45			N/A	N/A
	5 - Grovehurst Road	71.63	19.71	63.67	125.63	148.41			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	104.15	57.10	100.39	146.29	161.43			N/A	N/A
	2 - Grovehurst Road	47.47	18.76	44.01	74.71	85.41			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.30	1.22	1.66			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.98	0.03	0.26	1.98	1.98			N/A	N/A
	3 - A249 offslip (SB)	126.27	>199	>199	>199	>199			N/A	N/A

	<b>4 - Swale Way</b>	106.51	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	123.65	>199	>199	>199	>199			N/A	N/A

**08:15 - 08:30**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	104.30	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	45.80	14.05	41.17	77.63	90.80			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.39	0.00	0.00	0.39	0.39			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	1.98	0.16	1.03	3.78	4.86			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	149.51	>199	>199	>199	>199			N/A	N/A
	<b>4 - Swale Way</b>	115.26	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	138.37	>199	>199	>199	>199			N/A	N/A

**08:30 - 08:45**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	71.14	22.07	64.20	120.87	141.33			N/A	N/A
	<b>2 - Grovehurst Road</b>	28.02	2.76	21.59	57.96	72.63			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.39	0.00	0.00	0.39	0.39			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	1.97	0.39	1.25	3.23	3.93			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	150.95	>199	>199	>199	>199			N/A	N/A
	<b>4 - Swale Way</b>	99.38	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	126.42	>199	>199	>199	>199			N/A	N/A

# 2024 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	424.21	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1950.03	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	909	100.000
	2 - Grovehurst Road		ONE HOUR	✓	235	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	482	100.000
	4 - Swale Way		ONE HOUR	✓	1300	100.000
	5 - Grovehurst Road		ONE HOUR	✓	595	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	183	0	726
		2 - Grovehurst Road	0	0	27	208
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	264	542	0

## Demand (Veh/hr)

2 - South	From		To				
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	45	0	0	492	393
		3 - A249 offslip (SB)	1	27	0	199	255
		4 - Swale Way	708	433	0	0	159
5 - Grovehurst Road	150	339	0	106	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From		To			
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	2	0	21
		2 - Grovehurst Road	0	0	0	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	0	3	0		

## Heavy Vehicle Percentages

2 - South	From		To				
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	9	0	0	30	2
		3 - A249 offslip (SB)	0	11	0	8	3
		4 - Swale Way	20	3	0	0	3
5 - Grovehurst Road	1	2	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.37	754.23	168.5	200.0	F	834	1251
	2 - Grovehurst Road	0.52	14.98	1.1	3.5	B	216	323
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.38	3.62	0.6	2.3	A	542	814
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.47	3.93	0.9	1.5	A	777	1165
	3 - A249 offslip (SB)	0.72	17.27	2.5	11.3	C	442	663
	4 - Swale Way	2.48	4736.84	873.9	178.2	F	1193	1789
	5 - Grovehurst Road	0.92	50.01	8.5	44.3	F	546	819

## Main Results for each time segment

16:15 - 16:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	684	171	491	803	0.852	665	0	0.0	4.8	23.591	C
	2 - Grovehurst Road	177	44	861	578	0.306	175	295	0.0	0.4	8.889	A
	3 - A249 onslip (NB)			686				350				
	4 - B2005 - link	493	123	0	1590	0.310	491	686	0.0	0.4	3.269	A
2 - South	1 - A249 onslip (SB)			568				501				
	2 - B2005 - link	684	171	78	1739	0.393	681	489	0.0	0.6	3.394	A
	3 - A249 offslip (SB)	363	91	760	867	0.419	360	0	0.0	0.7	7.067	A
	4 - Swale Way	979	245	532	663	1.477	655	587	0.0	81.0	236.522	F
	5 - Grovehurst Road	448	112	628	678	0.661	441	558	0.0	1.9	14.749	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	817	204	535	774	1.056	750	0	4.8	21.6	79.318	F
	2 - Grovehurst Road	211	53	959	513	0.412	210	326	0.4	0.7	11.840	B
	3 - A249 onslip (NB)			785				384				
	4 - B2005 - link	535	134	0	1590	0.336	535	785	0.4	0.5	3.409	A
2 - South	1 - A249 onslip (SB)			625				507				
	2 - B2005 - link	781	195	94	1730	0.451	780	531	0.6	0.8	3.788	A
	3 - A249 offslip (SB)	433	108	875	773	0.561	431	0	0.7	1.2	10.477	B
	4 - Swale Way	1169	292	621	614	1.903	614	685	81.0	219.7	921.952	F
	5 - Grovehurst Road	535	134	602	696	0.768	530	633	1.9	3.0	21.043	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1001	250	589	737	1.359	735	0	21.6	87.9	280.225	F
	2 - Grovehurst Road	259	65	984	500	0.518	257	341	0.7	1.0	14.771	B
	3 - A249 onslip (NB)			815				426				
	4 - B2005 - link	589	147	0	1590	0.371	589	815	0.5	0.6	3.595	A
2 - South	1 - A249 onslip (SB)			699				515				
	2 - B2005 - link	805	201	114	1719	0.468	805	585	0.8	0.9	3.934	A
	3 - A249 offslip (SB)	531	133	918	738	0.719	526	0	1.2	2.4	16.620	C
	4 - Swale Way	1431	358	688	577	2.481	577	757	219.7	433.3	2038.781	F
	5 - Grovehurst Road	655	164	576	714	0.917	638	689	3.0	7.3	39.960	E

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1001	250	597	732	1.368	731	0	87.9	155.3	596.428	F
	2 - Grovehurst Road	259	65	985	499	0.519	259	343	1.0	1.1	14.980	B
	3 - A249 onslip (NB)			813				431				
	4 - B2005 - link	597	149	0	1590	0.375	597	813	0.6	0.6	3.621	A
2 - South	1 - A249 onslip (SB)			708				518				
	2 - B2005 - link	803	201	116	1718	0.467	803	592	0.9	0.9	3.931	A
	3 - A249 offslip (SB)	531	133	919	738	0.719	530	0	2.4	2.5	17.273	C
	4 - Swale Way	1431	358	689	576	2.484	576	760	433.3	647.1	3196.908	F
	5 - Grovehurst Road	655	164	575	714	0.917	651	690	7.3	8.5	50.006	F

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	817	204	547	765	1.068	764	0	155.3	168.5	754.228	F
	2 - Grovehurst Road	211	53	979	500	0.423	213	333	1.1	0.7	12.577	B
	3 - A249 onslip (NB)			799				393				
	4 - B2005 - link	547	137	0	1590	0.344	547	799	0.6	0.5	3.454	A
2 - South	1 - A249 onslip (SB)			642				510				
	2 - B2005 - link	794	199	99	1728	0.460	794	543	0.9	0.9	3.857	A
	3 - A249 offslip (SB)	433	108	893	757	0.572	438	0	2.5	1.4	11.408	B
	4 - Swale Way	1169	292	631	608	1.921	608	700	647.1	787.2	4124.984	F
	5 - Grovehurst Road	535	134	598	699	0.765	555	642	8.5	3.6	27.487	D

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	684	171	494	801	0.854	796	0	168.5	140.5	699.039	F
	2 - Grovehurst Road	177	44	968	504	0.351	178	322	0.7	0.6	11.072	B
	3 - A249 onslip (NB)			793				353				
	4 - B2005 - link	494	123	0	1590	0.310	494	793	0.5	0.5	3.286	A
2 - South	1 - A249 onslip (SB)			571				498				
	2 - B2005 - link	794	198	81	1738	0.457	794	490	0.9	0.8	3.813	A
	3 - A249 offslip (SB)	363	91	875	771	0.471	365	0	1.4	0.9	8.899	A
	4 - Swale Way	979	245	588	632	1.548	632	652	787.2	873.9	4736.842	F
	5 - Grovehurst Road	448	112	614	688	0.652	454	606	3.6	2.0	15.841	C

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.83	0.03	0.33	7.95	24.98			N/A	N/A
	2 - Grovehurst Road	0.43	0.00	0.00	0.43	0.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.64	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.71	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	81.05	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.86	0.71	1.40	1.99	2.48			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	21.59	0.40	11.96	53.93	73.48			N/A	N/A
	2 - Grovehurst Road	0.68	0.25	0.95	1.39	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.82	0.22	0.95	1.41	1.46			N/A	N/A
	3 - A249 offslip (SB)	1.25	0.08	1.00	2.37	3.10			N/A	N/A
	4 - Swale Way	219.72	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.04	0.10	1.22	7.26	10.09			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	87.94	41.84	83.53	130.60	146.52			N/A	N/A
	2 - Grovehurst Road	1.04	0.03	0.27	1.04	1.21			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.25	0.59	0.59			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.87	0.03	0.25	0.87	0.87			N/A	N/A
	3 - A249 offslip (SB)	2.41	0.03	0.30	2.77	11.31			N/A	N/A
	4 - Swale Way	433.30	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	7.34	0.07	1.30	20.95	32.66			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	155.30	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.06	0.03	0.28	1.06	3.51			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.03	0.28	0.71	2.26			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.87	0.03	0.26	0.87	0.87			N/A	N/A
	3 - A249 offslip (SB)	2.48	0.03	0.28	2.48	7.59			N/A	N/A

	4 - Swale Way	647.11	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	8.48	0.05	0.48	24.05	44.34			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	168.48	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.75	0.08	0.79	1.16	1.16			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.53	0.53	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.86	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.37	0.06	0.72	3.20	4.72			N/A	N/A
	4 - Swale Way	787.22	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.57	0.04	0.43	9.90	18.16			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	140.49	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.55	0.05	0.47	1.32	1.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.90	0.04	0.41	2.13	3.50			N/A	N/A
	4 - Swale Way	873.88	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.95	0.03	0.34	4.40	10.26			N/A	N/A

# 2031, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	230.50	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	363.86	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	861	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	689	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	819
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only



	4 - B2005 - link	0	147	327	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	141	0	0	908	183
	3 - A249 offslip (SB)	1	18	0	377	174
	4 - Swale Way	386	226	0	0	77
	5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	7	0	18
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	7	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	16	6
	3 - A249 offslip (SB)	0	6	0	9	4
	4 - Swale Way	38	10	0	0	9
	5 - Grovehurst Road	1	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.15	298.81	72.4	124.5	F	790	1185
	2 - Grovehurst Road	1.16	320.92	39.1	75.6	F	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.29	3.31	0.4	1.7	A	420	629
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.18	2.0	4.8	A	1113	1669
	3 - A249 offslip (SB)	1.49	1124.24	133.6	200.0	F	523	785
	4 - Swale Way	1.20	438.92	76.2	133.4	F	632	948
	5 - Grovehurst Road	1.15	297.54	51.7	95.0	F	561	841

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	648	162	350	887	0.731	638	0	0.0	2.6	13.956	B
	2 - Grovehurst Road	331	83	848	575	0.576	326	140	0.0	1.3	14.189	B

	3 - A249 onslip (NB)			914				260				
	4 - B2005 - link	351	88	0	1530	0.230	350	914	0.0	0.3	3.049	A
2 - South	1 - A249 onslip (SB)			479				541				
	2 - B2005 - link	917	229	127	1780	0.515	912	352	0.0	1.1	4.130	A
	3 - A249 offslip (SB)	429	107	1040	656	0.654	422	0	0.0	1.8	14.961	B
	4 - Swale Way	519	130	383	665	0.781	506	1079	0.0	3.2	21.269	C
	5 - Grovehurst Road	460	115	568	688	0.669	452	321	0.0	1.9	14.830	B

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	774	194	411	844	0.917	754	0	2.6	7.6	34.112	D
	2 - Grovehurst Road	396	99	1001	475	0.834	385	164	1.3	4.0	36.398	E
	3 - A249 onslip (NB)			1080				305				
	4 - B2005 - link	411	103	0	1530	0.269	411	1080	0.3	0.4	3.217	A
2 - South	1 - A249 onslip (SB)			562				635				
	2 - B2005 - link	1083	271	150	1767	0.613	1081	412	1.1	1.6	5.233	A
	3 - A249 offslip (SB)	512	128	1231	507	1.010	473	0	1.8	11.7	70.796	F
	4 - Swale Way	619	155	444	634	0.977	589	1259	3.2	10.7	57.599	F
	5 - Grovehurst Road	549	137	663	618	0.888	534	371	1.9	5.8	37.145	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	948	237	438	825	1.149	816	0	7.6	40.7	120.890	F
	2 - Grovehurst Road	484	121	1078	423	1.144	412	176	4.0	22.1	136.026	F
	3 - A249 onslip (NB)			1165				326				
	4 - B2005 - link	439	110	0	1530	0.287	438	1165	0.4	0.4	3.298	A
2 - South	1 - A249 onslip (SB)			602				680				
	2 - B2005 - link	1168	292	163	1759	0.664	1166	439	1.6	1.9	6.054	A
	3 - A249 offslip (SB)	628	157	1329	431	1.456	430	0	11.7	61.2	325.375	F
	4 - Swale Way	759	190	452	630	1.203	626	1306	10.7	43.9	173.251	F
	5 - Grovehurst Road	673	168	704	589	1.143	578	374	5.8	29.4	127.531	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	948	237	441	823	1.152	821	0	40.7	72.4	258.356	F
	2 - Grovehurst Road	484	121	1085	419	1.157	416	177	22.1	39.1	281.933	F
	3 - A249 onslip (NB)			1174				328				
	4 - B2005 - link	441	110	0	1530	0.289	441	1174	0.4	0.4	3.307	A
2 - South	1 - A249 onslip (SB)			607				685				
	2 - B2005 - link	1177	294	164	1759	0.669	1176	442	1.9	2.0	6.182	A
	3 - A249 offslip (SB)	628	157	1341	422	1.487	422	0	61.2	112.7	749.218	F
	4 - Swale Way	759	190	452	630	1.203	630	1310	43.9	76.2	355.285	F
	5 - Grovehurst Road	673	168	708	585	1.149	583	374	29.4	51.7	263.771	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	774	194	438	825	0.938	814	0	72.4	62.4	298.814	F
	2 - Grovehurst Road	396	99	1076	425	0.931	414	175	39.1	34.5	320.919	F
	3 - A249 onslip (NB)			1165				325				
	4 - B2005 - link	438	109	0	1530	0.286	438	1165	0.4	0.4	3.296	A
2 - South	1 - A249 onslip (SB)			602				678				
	2 - B2005 - link	1168	292	163	1759	0.664	1168	439	2.0	2.0	6.093	A
	3 - A249 offslip (SB)	512	128	1331	429	1.194	429	0	112.7	133.5	1043.421	F
	4 - Swale Way	619	155	452	630	0.983	621	1308	76.2	75.8	438.925	F
	5 - Grovehurst Road	549	137	699	592	0.928	581	374	51.7	43.9	297.536	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	648	162	437	826	0.785	813	0	62.4	21.3	190.054	F

1 - North	2 - Grovehurst Road	331	83	1075	426	0.778	414	175	34.5	13.8	217.566	F
	3 - A249 onslip (NB)			1163				325				
	4 - B2005 - link	437	109	0	1530	0.286	437	1163	0.4	0.4	3.294	A
2 - South	1 - A249 onslip (SB)			601				678				
	2 - B2005 - link	1166	292	163	1759	0.663	1166	438	2.0	2.0	6.069	A
	3 - A249 offslip (SB)	429	107	1329	431	0.995	429	0	133.5	133.6	1124.245	F
	4 - Swale Way	519	130	452	631	0.823	622	1306	75.8	49.9	365.912	F
	5 - Grovehurst Road	460	115	701	591	0.778	578	374	43.9	14.4	188.251	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.56	0.08	1.39	6.17	8.72			N/A	N/A
	2 - Grovehurst Road	1.31	0.05	0.47	3.26	5.06			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.05	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.80	0.03	0.25	1.80	1.80			N/A	N/A
	4 - Swale Way	3.19	0.05	0.48	8.95	15.16			N/A	N/A
	5 - Grovehurst Road	1.92	0.07	1.05	4.61	6.61			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	7.56	0.18	3.70	18.85	26.00			N/A	N/A
	2 - Grovehurst Road	4.02	0.08	1.00	10.77	15.94			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.37	0.00	0.00	0.37	0.37			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.56	0.07	1.00	3.48	4.84			N/A	N/A
	3 - A249 offslip (SB)	11.71	0.03	0.29	11.71	30.43			N/A	N/A
	4 - Swale Way	10.72	0.27	5.88	26.23	35.61			N/A	N/A
	5 - Grovehurst Road	5.78	0.13	2.53	14.61	20.46			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	40.67	14.36	37.17	66.11	76.36			N/A	N/A
	2 - Grovehurst Road	22.06	5.24	19.05	39.06	46.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.94	0.03	0.27	1.94	1.94			N/A	N/A
	3 - A249 offslip (SB)	61.23	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	43.93	16.53	40.47	70.12	80.52			N/A	N/A
	5 - Grovehurst Road	29.38	8.53	26.13	50.05	58.74			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	72.41	32.12	68.20	110.15	124.52			N/A	N/A
	2 - Grovehurst Road	39.11	12.75	35.37	64.98	75.56			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.30	1.27	1.71			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.03	0.26	1.99	1.99			N/A	N/A
	3 - A249 offslip (SB)	112.67	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	76.20	37.35	72.55	111.74	124.92			N/A	N/A
	5 - Grovehurst Road	51.72	19.46	47.71	82.76	95.05			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	62.40	22.68	57.39	101.18	116.63			N/A	N/A
	2 - Grovehurst Road	34.48	7.79	29.72	62.55	74.83			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.20	1.13	3.63	4.61			N/A	N/A
	3 - A249 offslip (SB)	133.50	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	75.85	32.04	71.07	117.42	133.42			N/A	N/A
	5 - Grovehurst Road	43.88	12.34	38.99	76.00	89.52			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	21.30	2.78	17.01	41.96	51.74			N/A	N/A
	2 - Grovehurst Road	13.85	0.88	9.44	30.72	39.75			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.98	0.52	1.31	3.04	3.78			N/A	N/A
	3 - A249 offslip (SB)	133.58	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	49.93	11.34	43.18	91.08	109.02			N/A	N/A
	5 - Grovehurst Road	14.44	0.97	9.96	31.84	41.11			N/A	N/A

# 2031, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	239.33	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1633.71	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	825	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	443	100.000
	4 - Swale Way		ONE HOUR	✓	1276	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	645
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	262	522	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	477	322
	3 - A249 offslip (SB)	1	27	0	199	216
	4 - Swale Way	685	432	0	0	159
	5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	21
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	4	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	28	1
	3 - A249 offslip (SB)	0	11	0	8	4
	4 - Swale Way	18	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.24	441.17	97.1	150.6	F	757	1136
	2 - Grovehurst Road	0.49	13.73	0.9	3.5	B	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.64	0.6	2.2	A	541	811
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.46	3.82	0.8	1.5	A	748	1122
	3 - A249 offslip (SB)	0.65	13.74	1.8	5.6	B	407	610
	4 - Swale Way	2.24	3878.15	764.7	180.1	F	1171	1756
	5 - Grovehurst Road	0.85	33.36	5.1	27.5	D	490	735

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	621	155	494	803	0.774	609	0	0.0	3.1	17.560	C
	2 - Grovehurst Road	171	43	804	622	0.275	169	298	0.0	0.4	7.930	A

	3 - A249 onslip (NB)			625				349				
	4 - B2005 - link	495	124	0	1580	0.314	494	625	0.0	0.5	3.307	A
2 - South	1 - A249 onslip (SB)			573				492				
	2 - B2005 - link	624	156	79	1751	0.357	622	495	0.0	0.6	3.185	A
	3 - A249 offslip (SB)	334	83	701	913	0.365	331	0	0.0	0.6	6.167	A
	4 - Swale Way	961	240	452	716	1.342	705	580	0.0	64.0	175.209	F
	5 - Grovehurst Road	402	101	669	657	0.612	396	488	0.0	1.5	13.495	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	742	185	535	774	0.958	714	0	3.1	10.1	45.822	E
	2 - Grovehurst Road	204	51	914	547	0.373	203	335	0.4	0.6	10.456	B
	3 - A249 onslip (NB)			737				380				
	4 - B2005 - link	535	134	0	1580	0.339	535	737	0.5	0.5	3.444	A
2 - South	1 - A249 onslip (SB)			629				495				
	2 - B2005 - link	736	184	95	1742	0.422	735	534	0.6	0.7	3.575	A
	3 - A249 offslip (SB)	398	100	830	808	0.493	397	0	0.6	1.0	8.710	A
	4 - Swale Way	1147	287	537	669	1.715	669	690	64.0	183.6	695.260	F
	5 - Grovehurst Road	480	120	647	672	0.714	477	558	1.5	2.3	18.086	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	908	227	588	739	1.230	734	0	10.1	53.6	170.395	F
	2 - Grovehurst Road	250	62	965	514	0.486	249	357	0.6	0.9	13.484	B
	3 - A249 onslip (NB)			793				421				
	4 - B2005 - link	588	147	0	1580	0.372	588	793	0.5	0.6	3.626	A
2 - South	1 - A249 onslip (SB)			702				497				
	2 - B2005 - link	787	197	115	1730	0.455	787	587	0.7	0.8	3.811	A
	3 - A249 offslip (SB)	488	122	901	752	0.649	484	0	1.0	1.8	13.309	B
	4 - Swale Way	1405	351	607	629	2.232	629	779	183.6	377.4	1610.749	F
	5 - Grovehurst Road	588	147	621	690	0.852	578	616	2.3	4.8	29.738	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	908	227	592	735	1.235	735	0	53.6	97.1	374.287	F
	2 - Grovehurst Road	250	62	969	512	0.488	250	358	0.9	0.9	13.729	B
	3 - A249 onslip (NB)			794				424				
	4 - B2005 - link	592	148	0	1580	0.375	592	794	0.6	0.6	3.643	A
2 - South	1 - A249 onslip (SB)			708				498				
	2 - B2005 - link	788	197	116	1730	0.456	788	592	0.8	0.8	3.823	A
	3 - A249 offslip (SB)	488	122	905	749	0.651	488	0	1.8	1.8	13.744	B
	4 - Swale Way	1405	351	610	628	2.237	628	783	377.4	571.6	2619.250	F
	5 - Grovehurst Road	588	147	620	691	0.851	586	618	4.8	5.1	33.356	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	742	185	540	771	0.962	763	0	97.1	91.7	441.169	F
	2 - Grovehurst Road	204	51	956	517	0.394	205	347	0.9	0.7	11.575	B
	3 - A249 onslip (NB)			777				384				
	4 - B2005 - link	540	135	0	1580	0.342	540	777	0.6	0.5	3.463	A
2 - South	1 - A249 onslip (SB)			636				494				
	2 - B2005 - link	777	194	97	1740	0.447	777	539	0.8	0.8	3.738	A
	3 - A249 offslip (SB)	398	100	875	772	0.516	401	0	1.8	1.1	9.788	A
	4 - Swale Way	1147	287	557	657	1.745	657	718	571.6	694.0	3393.157	F
	5 - Grovehurst Road	480	120	640	677	0.709	490	575	5.1	2.6	20.163	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	621	155	493	803	0.773	795	0	91.7	48.3	319.637	F

1 - North	2 - Grovehurst Road	171	43	949	519	0.329	172	338	0.7	0.5	10.382	B
	3 - A249 onslip (NB)			772				349				
	4 - B2005 - link	493	123	0	1580	0.312	493	772	0.5	0.5	3.313	A
2 - South	1 - A249 onslip (SB)			572				487				
	2 - B2005 - link	777	194	81	1750	0.444	777	492	0.8	0.8	3.701	A
	3 - A249 offslip (SB)	334	83	858	784	0.425	335	0	1.1	0.8	8.036	A
	4 - Swale Way	961	240	521	678	1.417	678	672	694.0	764.7	3878.150	F
	5 - Grovehurst Road	402	101	654	668	0.602	406	545	2.6	1.6	13.957	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.13	0.06	1.01	8.53	13.10			N/A	N/A
	2 - Grovehurst Road	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.55	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.57	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	63.98	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.52	1.05	1.50	1.90	1.95			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.06	0.27	5.54	24.49	33.18			N/A	N/A
	2 - Grovehurst Road	0.59	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.73	0.20	0.93	1.39	1.44			N/A	N/A
	3 - A249 offslip (SB)	0.95	0.09	0.91	1.52	1.86			N/A	N/A
	4 - Swale Way	183.59	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.35	0.09	1.42	5.37	7.41			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	53.62	24.35	50.53	80.58	90.81			N/A	N/A
	2 - Grovehurst Road	0.92	0.03	0.26	0.92	0.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.25	0.59	0.59			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.83	0.03	0.25	0.83	0.83			N/A	N/A
	3 - A249 offslip (SB)	1.78	0.03	0.28	1.78	5.64			N/A	N/A
	4 - Swale Way	377.44	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.77	0.04	0.44	13.24	24.65			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	97.05	54.43	93.72	134.93	148.46			N/A	N/A
	2 - Grovehurst Road	0.94	0.03	0.28	0.94	3.51			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.03	0.28	0.63	2.18			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.83	0.03	0.26	0.83	0.94			N/A	N/A
	3 - A249 offslip (SB)	1.82	0.03	0.28	1.82	4.50			N/A	N/A
	4 - Swale Way	571.64	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.14	0.03	0.34	9.82	27.52			N/A	N/A



## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	91.68	44.94	87.37	134.67	150.60			N/A	N/A
	2 - Grovehurst Road	0.66	0.08	0.79	1.37	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.09	0.08	0.91	1.93	2.67			N/A	N/A
	4 - Swale Way	694.04	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.59	0.04	0.43	7.12	12.67			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	48.31	15.65	43.74	80.71	93.96			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.44	1.27	1.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.46	0.00	0.00	0.46	0.46			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.80	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.75	0.05	0.48	1.45	1.96			N/A	N/A
	4 - Swale Way	764.68	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.57	0.03	0.35	3.81	8.01			N/A	N/A

# 2031 + Cumulative, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	1282.10	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1003.02	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D21	2031 + Cumulative	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1107	100.000
	2 - Grovehurst Road		ONE HOUR	✓	737	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	620	100.000
	4 - Swale Way		ONE HOUR	✓	766	100.000
	5 - Grovehurst Road		ONE HOUR	✓	775	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From				
	1 - A249 offslip (NB)	0	123	0	984
	2 - Grovehurst Road	0	0	38	699
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	159	403	0
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## Demand (Veh/hr)

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
2 - South	From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	419	0	0	1031
		3 - A249 offslip (SB)	1	22	0	381
		4 - Swale Way	459	229	0	0
		5 - Grovehurst Road	289	313	0	173

## Vehicle Mix

## Heavy Vehicle Percentages

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From	1 - A249 offslip (NB)	0	2	0
		2 - Grovehurst Road	0	0	5
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	6

## Heavy Vehicle Percentages

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
2 - South	From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	0	0	0	16
		3 - A249 offslip (SB)	0	5	0	9
		4 - Swale Way	36	10	0	0
		5 - Grovehurst Road	1	1	0	4

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.39	959.12	238.6	238.6	F	1016	1524
	2 - Grovehurst Road	1.82	2591.72	335.2	195.8	F	676	1014
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.26	3.15	0.3	1.3	A	393	589
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	5.93	2.0	6.1	A	1202	1804
	3 - A249 offslip (SB)	1.53	1488.03	186.2	187.3	F	569	853
	4 - Swale Way	1.55	1617.59	246.8	159.4	F	703	1054
	5 - Grovehurst Road	1.57	1678.33	256.8	196.7	F	711	1067

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	833	208	381	890	0.937	798	0	0.0	8.7	32.148	D
	2 - Grovehurst Road	555	139	983	501	1.107	477	196	0.0	19.5	91.954	F

	3 - A249 onslip (NB)			1162					297				
	4 - B2005 - link	382	95	0	1539	0.248	381	1162	0.0	0.3	3.105	A	
2 - South	1 - A249 onslip (SB)			502				797					
	2 - B2005 - link	1163	291	118	1820	0.639	1156	384	0.0	1.7	5.360	A	
	3 - A249 offslip (SB)	467	117	1274	492	0.948	436	0	0.0	7.7	49.953	E	
	4 - Swale Way	577	144	615	555	1.039	519	1095	0.0	14.4	67.455	F	
	5 - Grovehurst Road	583	146	770	567	1.028	529	363	0.0	13.7	64.049	F	

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	995	249	394	880	1.131	870	0	8.7	39.9	114.695	F
	2 - Grovehurst Road	663	166	1056	452	1.465	452	208	19.5	72.3	383.230	F
	3 - A249 onslip (NB)			1202				306				
	4 - B2005 - link	394	99	0	1539	0.256	394	1202	0.3	0.3	3.144	A
2 - South	1 - A249 onslip (SB)			517				828				
	2 - B2005 - link	1208	302	121	1819	0.664	1207	396	1.7	1.9	5.873	A
	3 - A249 offslip (SB)	557	139	1328	451	1.237	446	0	7.7	35.6	195.265	F
	4 - Swale Way	689	172	638	544	1.267	541	1135	14.4	51.3	234.920	F
	5 - Grovehurst Road	697	174	803	544	1.281	542	376	13.7	52.5	236.253	F

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1219	305	395	880	1.386	879	0	39.9	124.9	346.370	F
	2 - Grovehurst Road	811	203	1064	447	1.816	447	209	72.3	163.4	961.331	F
	3 - A249 onslip (NB)			1205				306				
	4 - B2005 - link	395	99	0	1539	0.257	395	1205	0.3	0.3	3.145	A
2 - South	1 - A249 onslip (SB)			518				830				
	2 - B2005 - link	1211	303	121	1819	0.666	1211	397	1.9	2.0	5.926	A
	3 - A249 offslip (SB)	683	171	1332	447	1.528	446	0	35.6	94.6	539.201	F
	4 - Swale Way	843	211	641	543	1.554	542	1138	51.3	126.5	601.318	F
	5 - Grovehurst Road	853	213	806	542	1.573	542	377	52.5	130.2	617.496	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1219	305	395	880	1.386	880	0	124.9	209.7	691.364	F
	2 - Grovehurst Road	811	203	1065	447	1.817	447	209	163.4	254.6	1695.055	F
	3 - A249 onslip (NB)			1205				306				
	4 - B2005 - link	395	99	0	1539	0.257	395	1205	0.3	0.3	3.146	A
2 - South	1 - A249 onslip (SB)			518				830				
	2 - B2005 - link	1212	303	121	1819	0.666	1212	397	2.0	2.0	5.930	A
	3 - A249 offslip (SB)	683	171	1333	447	1.529	447	0	94.6	153.7	1012.248	F
	4 - Swale Way	843	211	641	543	1.555	542	1139	126.5	201.8	1098.467	F
	5 - Grovehurst Road	853	213	806	542	1.573	542	377	130.2	208.0	1131.542	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	995	249	395	880	1.131	879	0	209.7	238.6	923.506	F
	2 - Grovehurst Road	663	166	1065	447	1.483	447	209	254.6	308.6	2273.166	F
	3 - A249 onslip (NB)			1205				306				
	4 - B2005 - link	395	99	0	1539	0.257	395	1205	0.3	0.3	3.146	A
2 - South	1 - A249 onslip (SB)			518				830				
	2 - B2005 - link	1212	303	121	1819	0.666	1212	397	2.0	2.0	5.930	A
	3 - A249 offslip (SB)	557	139	1333	447	1.248	447	0	153.7	181.4	1359.917	F
	4 - Swale Way	689	172	641	543	1.269	542	1139	201.8	238.3	1468.483	F
	5 - Grovehurst Road	697	174	806	542	1.285	542	377	208.0	246.6	1516.818	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	833	208	395	880	0.948	876	0	238.6	228.0	959.120	F

1 - North	2 - Grovehurst Road	555	139	1062	449	1.236	449	209	308.6	335.2	2591.724	F
	3 - A249 onslip (NB)			1204				306				
	4 - B2005 - link	395	99	0	1539	0.257	395	1204	0.3	0.3	3.146	A
2 - South	1 - A249 onslip (SB)			518				830				
	2 - B2005 - link	1210	303	121	1819	0.665	1210	397	2.0	2.0	5.916	A
	3 - A249 offslip (SB)	467	117	1331	448	1.043	447	0	181.4	186.2	1488.033	F
	4 - Swale Way	577	144	640	543	1.063	542	1138	238.3	246.8	1617.594	F
	5 - Grovehurst Road	583	146	805	543	1.075	542	377	246.6	256.8	1678.330	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	8.74	0.03	0.28	8.74	11.52			N/A	N/A
	2 - Grovehurst Road	19.51	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.74	1.05	1.50	1.90	1.95			N/A	N/A
	3 - A249 offslip (SB)	7.73	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	14.41	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	13.69	>199	>199	>199	>199			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	39.94	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	72.25	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.94	0.08	1.21	4.41	6.11			N/A	N/A
	3 - A249 offslip (SB)	35.60	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	51.28	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	52.46	>199	>199	>199	>199			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	124.87	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	163.42	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.97	0.03	0.27	1.97	1.97			N/A	N/A
	3 - A249 offslip (SB)	94.64	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	126.53	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	130.21	>199	>199	>199	>199			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	209.71	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	254.63	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.03	0.31	1.18	1.25			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.98	0.03	0.26	1.98	1.98			N/A	N/A
	3 - A249 offslip (SB)	153.67	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	201.76	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	207.96	>199	>199	>199	>199			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	238.63	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	308.62	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.11	1.41	4.08	5.50			N/A	N/A
	3 - A249 offslip (SB)	181.38	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	238.29	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	246.56	>199	>199	>199	>199			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	228.01	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	335.15	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.23	1.16	3.56	4.48			N/A	N/A
	3 - A249 offslip (SB)	186.21	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	246.84	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	256.81	>199	>199	>199	>199			N/A	N/A

# 2031 + Cumulative, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	1077.34	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	2483.20	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D22	2031 + Cumulative	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1190	100.000
	2 - Grovehurst Road		ONE HOUR	✓	389	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	529	100.000
	4 - Swale Way		ONE HOUR	✓	1374	100.000
	5 - Grovehurst Road		ONE HOUR	✓	613	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From				
	1 - A249 offslip (NB)	0	430	0	760
	2 - Grovehurst Road	0	0	34	355
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	277	560	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	187	0	0	521	402
	3 - A249 offslip (SB)	1	39	0	202	287
	4 - Swale Way	778	435	0	0	161
	5 - Grovehurst Road	150	356	0	107	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	0	0	19
	2 - Grovehurst Road	0	0	0	0
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	1	0	0	27	1
	3 - A249 offslip (SB)	0	8	0	8	3
	4 - Swale Way	17	3	0	0	3
	5 - Grovehurst Road	0	1	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.70	1867.33	440.0	178.4	F	1092	1638
	2 - Grovehurst Road	0.73	22.91	2.6	13.2	C	357	535
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.60	0.6	2.3	A	540	809
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.48	3.92	0.9	1.5	A	823	1235
	3 - A249 offslip (SB)	0.81	26.35	4.1	20.5	D	485	728
	4 - Swale Way	2.93	6009.28	1050.3	180.3	F	1261	1891
	5 - Grovehurst Road	0.98	86.96	15.7	60.3	F	562	844

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	896	224	482	846	1.059	809	0	0.0	21.8	62.059	F
	2 - Grovehurst Road	293	73	839	610	0.480	289	452	0.0	0.9	11.094	B



	3 - A249 onslip (NB)			780					347				
	4 - B2005 - link	483	121	0	1591	0.304		482	780	0.0	0.4	3.246	A
2 - South	1 - A249 onslip (SB)			561					582				
	2 - B2005 - link	776	194	79	1799	0.431		773	482	0.0	0.8	3.498	A
	3 - A249 offslip (SB)	398	100	852	813	0.490		394	0	0.0	0.9	8.524	A
	4 - Swale Way	1034	259	654	607	1.704		601	593	0.0	108.3	340.881	F
	5 - Grovehurst Road	461	115	691	655	0.705		453	564	0.0	2.2	17.123	C

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1070	267	530	812	1.318	810	0	21.8	86.7	255.231	F
	2 - Grovehurst Road	350	87	872	590	0.593	348	468	0.9	1.4	14.734	B
	3 - A249 onslip (NB)			835				385				
	4 - B2005 - link	530	133	0	1591	0.333	530	835	0.4	0.5	3.394	A
2 - South	1 - A249 onslip (SB)			624				593				
	2 - B2005 - link	824	206	95	1790	0.460	824	530	0.8	0.8	3.722	A
	3 - A249 offslip (SB)	476	119	919	761	0.625	473	0	0.9	1.6	12.390	B
	4 - Swale Way	1235	309	729	565	2.185	565	662	108.3	275.7	1301.726	F
	5 - Grovehurst Road	551	138	674	667	0.826	544	621	2.2	4.1	27.449	D

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1310	328	581	776	1.689	776	0	86.7	220.3	722.742	F
	2 - Grovehurst Road	428	107	884	585	0.732	424	472	1.4	2.5	21.754	C
	3 - A249 onslip (NB)			882				426				
	4 - B2005 - link	581	145	0	1591	0.365	581	882	0.5	0.6	3.565	A
2 - South	1 - A249 onslip (SB)			693				598				
	2 - B2005 - link	862	216	112	1780	0.484	862	581	0.8	0.9	3.919	A
	3 - A249 offslip (SB)	582	146	974	717	0.812	574	0	1.6	3.8	23.750	C
	4 - Swale Way	1513	378	812	520	2.912	520	736	275.7	524.0	2778.818	F
	5 - Grovehurst Road	675	169	647	686	0.984	644	684	4.1	11.9	59.295	F

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1310	328	590	769	1.704	769	0	220.3	355.6	1354.149	F
	2 - Grovehurst Road	428	107	886	584	0.734	428	473	2.5	2.6	22.914	C
	3 - A249 onslip (NB)			882				432				
	4 - B2005 - link	590	148	0	1591	0.371	590	882	0.6	0.6	3.597	A
2 - South	1 - A249 onslip (SB)			705				600				
	2 - B2005 - link	861	215	115	1779	0.484	861	590	0.9	0.9	3.924	A
	3 - A249 offslip (SB)	582	146	976	716	0.814	581	0	3.8	4.1	26.349	D
	4 - Swale Way	1513	378	816	517	2.925	517	741	524.0	773.0	4088.383	F
	5 - Grovehurst Road	675	169	646	687	0.982	660	688	11.9	15.7	86.961	F

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1070	267	558	792	1.351	792	0	355.6	425.1	1733.798	F
	2 - Grovehurst Road	350	87	879	587	0.596	354	471	2.6	1.5	15.754	C
	3 - A249 onslip (NB)			829				404				
	4 - B2005 - link	558	139	0	1591	0.351	558	829	0.6	0.5	3.489	A
2 - South	1 - A249 onslip (SB)			661				602				
	2 - B2005 - link	817	204	103	1785	0.458	817	557	0.9	0.8	3.722	A
	3 - A249 offslip (SB)	476	119	921	760	0.626	485	0	4.1	1.7	13.505	B
	4 - Swale Way	1235	309	733	563	2.194	563	672	773.0	941.0	5224.563	F
	5 - Grovehurst Road	551	138	671	669	0.824	591	625	15.7	5.6	54.775	F

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	896	224	495	836	1.071	836	0	425.1	440.0	1867.326	F

1 - North	2 - Grovehurst Road	293	73	865	592	0.494	295	466	1.5	1.0	12.190	B
	3 - A249 onslip (NB)			803				357				
	4 - B2005 - link	495	124	0	1591	0.311	495	803	0.5	0.5	3.286	A
2 - South	1 - A249 onslip (SB)			576				589				
	2 - B2005 - link	799	200	83	1797	0.445	799	494	0.8	0.8	3.610	A
	3 - A249 offslip (SB)	398	100	882	789	0.505	401	0	1.7	1.0	9.338	A
	4 - Swale Way	1034	259	672	597	1.732	597	611	941.0	1050.3	6009.281	F
	5 - Grovehurst Road	461	115	692	654	0.705	474	577	5.6	2.5	21.076	C

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	21.80	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.90	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.75	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.94	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	108.25	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.24	0.73	1.64	2.95	3.53			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	86.71	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.40	0.11	1.15	2.60	3.38			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.00	0.00	0.50	0.50			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.18	0.94	1.43	1.49			N/A	N/A
	3 - A249 offslip (SB)	1.61	0.07	1.00	3.65	5.10			N/A	N/A
	4 - Swale Way	275.73	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.09	0.13	1.92	9.73	13.33			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	220.34	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	2.52	0.03	0.32	4.53	13.20			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.57	0.03	0.25	0.57	0.57			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.93	0.03	0.25	0.93	0.93			N/A	N/A
	3 - A249 offslip (SB)	3.81	0.04	0.37	9.34	20.47			N/A	N/A
	4 - Swale Way	524.04	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	11.91	0.27	6.45	29.40	40.02			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	355.62	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	2.63	0.03	0.29	2.63	10.18			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.28	0.78	2.29			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.94	0.03	0.26	0.94	0.94			N/A	N/A
	3 - A249 offslip (SB)	4.06	0.03	0.31	5.18	19.62			N/A	N/A
	4 - Swale Way	772.96	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	15.68	0.17	6.45	42.16	60.33			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	425.15	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.53	0.05	0.50	3.88	5.98			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.54	0.54	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.73	0.04	0.44	4.63	7.67			N/A	N/A
	4 - Swale Way	941.00	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.59	0.05	0.49	16.01	28.02			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	440.04	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.00	0.04	0.39	2.50	4.25			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.04	0.03	0.34	2.44	5.10			N/A	N/A
	4 - Swale Way	1050.32	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.55	0.03	0.34	5.67	13.62			N/A	N/A

# 2031 + K3 Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	233.64	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	373.36	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D23	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	864	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	692	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	822
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	147	327	0
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## Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	141	0	0	911	183
		3 - A249 offslip (SB)	1	18	0	377	174
		4 - Swale Way	389	226	0	0	77
		5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

## Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From	1 - A249 offslip (NB)	0	7	0	18
		2 - Grovehurst Road	0	0	8	3
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	7	0

## Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	16	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	39	10	0	0	9
		5 - Grovehurst Road	1	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.15	303.59	73.4	125.6	F	793	1189
	2 - Grovehurst Road	1.16	322.36	39.2	75.7	F	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.29	3.30	0.4	1.7	A	418	627
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.20	2.0	4.9	A	1115	1672
	3 - A249 offslip (SB)	1.49	1135.42	134.6	200.0	F	523	785
	4 - Swale Way	1.21	464.80	79.9	138.5	F	635	952
	5 - Grovehurst Road	1.15	303.51	52.2	95.5	F	561	841

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	650	163	350	887	0.734	640	0	0.0	2.6	14.059	B
	2 - Grovehurst Road	331	83	850	573	0.578	326	140	0.0	1.3	14.264	B

	3 - A249 onslip (NB)			916				260				
	4 - B2005 - link	351	88	0	1530	0.230	350	916	0.0	0.3	3.049	A
2 - South	1 - A249 onslip (SB)			479				543				
	2 - B2005 - link	919	230	127	1780	0.516	914	352	0.0	1.1	4.141	A
	3 - A249 offslip (SB)	429	107	1042	654	0.656	422	0	0.0	1.8	15.062	C
	4 - Swale Way	521	130	383	661	0.788	508	1081	0.0	3.3	21.882	C
	5 - Grovehurst Road	460	115	570	685	0.672	452	321	0.0	1.9	15.022	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	777	194	410	845	0.920	756	0	2.6	7.7	34.572	D
	2 - Grovehurst Road	396	99	1002	473	0.836	385	164	1.3	4.1	36.744	E
	3 - A249 onslip (NB)			1082				305				
	4 - B2005 - link	410	103	0	1530	0.268	410	1082	0.3	0.4	3.215	A
2 - South	1 - A249 onslip (SB)			561				636				
	2 - B2005 - link	1085	271	150	1766	0.614	1083	411	1.1	1.6	5.250	A
	3 - A249 offslip (SB)	512	128	1233	506	1.014	472	0	1.8	11.9	71.981	F
	4 - Swale Way	622	156	444	631	0.985	590	1261	3.3	11.4	60.430	F
	5 - Grovehurst Road	549	137	663	616	0.892	533	370	1.9	5.9	37.921	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	951	238	436	826	1.152	817	0	7.7	41.2	122.211	F
	2 - Grovehurst Road	484	121	1078	423	1.145	412	175	4.1	22.1	136.651	F
	3 - A249 onslip (NB)			1166				325				
	4 - B2005 - link	437	109	0	1530	0.285	436	1166	0.4	0.4	3.292	A
2 - South	1 - A249 onslip (SB)			600				679				
	2 - B2005 - link	1169	292	163	1759	0.665	1168	437	1.6	1.9	6.070	A
	3 - A249 offslip (SB)	628	157	1330	430	1.460	428	0	11.9	61.7	329.127	F
	4 - Swale Way	762	190	451	628	1.214	624	1307	11.4	46.0	181.554	F
	5 - Grovehurst Road	673	168	702	588	1.145	578	373	5.9	29.7	128.958	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	951	238	439	824	1.154	823	0	41.2	73.4	261.360	F
	2 - Grovehurst Road	484	121	1086	418	1.158	416	176	22.1	39.2	282.954	F
	3 - A249 onslip (NB)			1175				327				
	4 - B2005 - link	439	110	0	1530	0.287	439	1175	0.4	0.4	3.301	A
2 - South	1 - A249 onslip (SB)			604				684				
	2 - B2005 - link	1178	295	164	1758	0.670	1178	440	1.9	2.0	6.197	A
	3 - A249 offslip (SB)	628	157	1342	421	1.491	421	0	61.7	113.4	755.750	F
	4 - Swale Way	762	190	451	628	1.214	627	1311	46.0	79.7	372.652	F
	5 - Grovehurst Road	673	168	706	585	1.150	583	373	29.7	52.2	266.407	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	777	194	436	826	0.940	815	0	73.4	63.8	303.591	F
	2 - Grovehurst Road	396	99	1076	424	0.932	414	175	39.2	34.7	322.362	F
	3 - A249 onslip (NB)			1166				324				
	4 - B2005 - link	436	109	0	1530	0.285	436	1166	0.4	0.4	3.291	A
2 - South	1 - A249 onslip (SB)			600				678				
	2 - B2005 - link	1169	292	163	1759	0.665	1169	437	2.0	2.0	6.102	A
	3 - A249 offslip (SB)	512	128	1332	429	1.195	429	0	113.4	134.4	1051.459	F
	4 - Swale Way	622	156	452	628	0.991	622	1309	79.7	79.9	464.804	F
	5 - Grovehurst Road	549	137	700	589	0.933	578	373	52.2	45.0	303.509	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	650	163	435	827	0.787	814	0	63.8	22.8	195.943	F

1 - North	2 - Grovehurst Road	331	83	1075	425	0.779	414	175	34.7	14.1	219.366	F
	3 - A249 onslip (NB)			1165				324				
	4 - B2005 - link	435	109	0	1530	0.285	435	1165	0.4	0.4	3.288	A
2 - South	1 - A249 onslip (SB)			599				677				
	2 - B2005 - link	1168	292	163	1759	0.664	1168	436	2.0	2.0	6.087	A
	3 - A249 offslip (SB)	429	107	1330	430	0.998	428	0	134.4	134.6	1135.422	F
	4 - Swale Way	521	130	451	628	0.830	620	1307	79.9	55.1	393.772	F
	5 - Grovehurst Road	460	115	699	590	0.779	577	373	45.0	15.7	195.392	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.59	0.08	1.37	6.33	8.97			N/A	N/A
	2 - Grovehurst Road	1.32	0.05	0.47	3.29	5.13			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.06	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.82	0.03	0.25	1.82	1.82			N/A	N/A
	4 - Swale Way	3.31	0.04	0.44	9.25	16.43			N/A	N/A
	5 - Grovehurst Road	1.94	0.07	1.03	4.72	6.81			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	7.71	0.18	3.79	19.19	26.45			N/A	N/A
	2 - Grovehurst Road	4.07	0.08	1.03	10.87	16.08			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.57	0.07	1.00	3.51	4.88			N/A	N/A
	3 - A249 offslip (SB)	11.94	0.03	0.29	11.94	32.57			N/A	N/A
	4 - Swale Way	11.41	0.27	6.20	28.06	38.17			N/A	N/A
	5 - Grovehurst Road	5.92	0.14	2.63	14.90	20.81			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	41.25	14.73	37.74	66.80	77.04			N/A	N/A
	2 - Grovehurst Road	22.14	5.28	19.14	39.20	46.63			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.95	0.03	0.27	1.95	1.95			N/A	N/A
	3 - A249 offslip (SB)	61.72	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	45.99	17.54	42.45	73.16	83.90			N/A	N/A
	5 - Grovehurst Road	29.67	8.70	26.42	50.44	59.13			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	73.44	32.91	69.24	111.27	125.62			N/A	N/A
	2 - Grovehurst Road	39.23	12.84	35.51	65.14	75.74			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.30	1.26	1.70			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.00	0.03	0.26	2.00	2.00			N/A	N/A
	3 - A249 offslip (SB)	113.42	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	79.74	39.99	76.10	115.91	129.23			N/A	N/A
	5 - Grovehurst Road	52.15	19.79	48.15	83.22	95.49			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	63.78	23.34	58.72	103.23	118.92			N/A	N/A
	2 - Grovehurst Road	34.65	7.86	29.89	62.81	75.13			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.20	1.12	3.66	4.66			N/A	N/A
	3 - A249 offslip (SB)	134.36	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	79.88	34.85	75.13	122.30	138.49			N/A	N/A
	5 - Grovehurst Road	44.99	12.90	40.09	77.61	91.28			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	22.84	3.58	18.71	43.91	53.68			N/A	N/A
	2 - Grovehurst Road	14.08	0.89	9.61	31.24	40.42			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.52	1.31	3.08	3.80			N/A	N/A
	3 - A249 offslip (SB)	134.59	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	55.11	13.84	48.32	98.39	116.90			N/A	N/A
	5 - Grovehurst Road	15.67	1.39	11.36	33.42	42.53			N/A	N/A



# 2031 + K3 Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	254.29	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1665.61	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D24	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	828	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	443	100.000
	4 - Swale Way		ONE HOUR	✓	1279	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	648
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	262	522	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	480	322
	3 - A249 offslip (SB)	1	27	0	199	216
	4 - Swale Way	688	432	0	0	159
	5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	22
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	4	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	28	1
	3 - A249 offslip (SB)	0	11	0	8	4
	4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.25	466.35	101.2	157.5	F	760	1140
	2 - Grovehurst Road	0.49	13.78	0.9	3.5	B	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.64	0.6	2.2	A	539	808
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.46	3.83	0.8	1.5	A	752	1128
	3 - A249 offslip (SB)	0.65	13.85	1.8	5.8	B	407	610
	4 - Swale Way	2.25	3942.99	773.9	179.2	F	1174	1760
	5 - Grovehurst Road	0.85	33.48	5.2	27.6	D	490	735

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	623	156	492	799	0.781	610	0	0.0	3.2	18.061	C
	2 - Grovehurst Road	171	43	805	619	0.276	169	297	0.0	0.4	7.989	A

	3 - A249 onslip (NB)			627				348				
	4 - B2005 - link	494	123	0	1580	0.312	492	627	0.0	0.5	3.301	A
2 - South	1 - A249 onslip (SB)			571				490				
	2 - B2005 - link	630	158	79	1750	0.360	628	493	0.0	0.6	3.201	A
	3 - A249 offslip (SB)	334	83	707	908	0.367	331	0	0.0	0.6	6.218	A
	4 - Swale Way	963	241	453	711	1.354	701	584	0.0	65.6	180.266	F
	5 - Grovehurst Road	402	101	666	657	0.612	396	488	0.0	1.5	13.504	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	744	186	533	770	0.966	714	0	3.2	10.7	48.205	E
	2 - Grovehurst Road	204	51	914	543	0.375	203	334	0.4	0.6	10.555	B
	3 - A249 onslip (NB)			738				379				
	4 - B2005 - link	533	133	0	1580	0.338	533	738	0.5	0.5	3.437	A
2 - South	1 - A249 onslip (SB)			627				494				
	2 - B2005 - link	741	185	95	1741	0.426	741	533	0.6	0.7	3.597	A
	3 - A249 offslip (SB)	398	100	835	804	0.495	397	0	0.6	1.0	8.810	A
	4 - Swale Way	1150	287	538	665	1.729	665	694	65.6	186.8	712.677	F
	5 - Grovehurst Road	480	120	644	672	0.714	477	559	1.5	2.3	18.093	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	912	228	586	735	1.241	731	0	10.7	56.0	178.451	F
	2 - Grovehurst Road	250	62	962	513	0.487	249	355	0.6	0.9	13.546	B
	3 - A249 onslip (NB)			791				420				
	4 - B2005 - link	586	147	0	1580	0.371	586	791	0.5	0.6	3.620	A
2 - South	1 - A249 onslip (SB)			700				496				
	2 - B2005 - link	789	197	115	1730	0.456	789	585	0.7	0.8	3.823	A
	3 - A249 offslip (SB)	488	122	904	749	0.651	484	0	1.0	1.8	13.418	B
	4 - Swale Way	1408	352	607	626	2.248	626	781	186.8	382.3	1641.556	F
	5 - Grovehurst Road	588	147	618	690	0.852	578	615	2.3	4.8	29.815	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	912	228	591	731	1.247	731	0	56.0	101.2	391.765	F
	2 - Grovehurst Road	250	62	965	511	0.489	250	356	0.9	0.9	13.781	B
	3 - A249 onslip (NB)			792				423				
	4 - B2005 - link	591	148	0	1580	0.374	591	792	0.6	0.6	3.637	A
2 - South	1 - A249 onslip (SB)			707				498				
	2 - B2005 - link	790	198	116	1729	0.457	790	590	0.8	0.8	3.834	A
	3 - A249 offslip (SB)	488	122	907	747	0.653	488	0	1.8	1.8	13.845	B
	4 - Swale Way	1408	352	609	625	2.252	625	785	382.3	578.0	2661.399	F
	5 - Grovehurst Road	588	147	618	690	0.852	586	617	4.8	5.2	33.477	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	744	186	539	767	0.971	759	0	101.2	97.5	466.350	F
	2 - Grovehurst Road	204	51	953	516	0.395	205	345	0.9	0.7	11.618	B
	3 - A249 onslip (NB)			775				383				
	4 - B2005 - link	538	135	0	1580	0.341	539	775	0.6	0.5	3.455	A
2 - South	1 - A249 onslip (SB)			635				493				
	2 - B2005 - link	780	195	97	1740	0.448	780	537	0.8	0.8	3.750	A
	3 - A249 offslip (SB)	398	100	877	770	0.517	401	0	1.8	1.1	9.846	A
	4 - Swale Way	1150	287	557	654	1.757	654	721	578.0	701.9	3447.735	F
	5 - Grovehurst Road	480	120	637	677	0.709	490	574	5.2	2.6	20.219	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	623	156	491	799	0.780	791	0	97.5	55.6	350.619	F

1 - North	2 - Grovehurst Road	171	43	946	518	0.330	172	336	0.7	0.5	10.421	B
	3 - A249 onslip (NB)			770				348				
	4 - B2005 - link	491	123	0	1580	0.311	491	770	0.5	0.5	3.305	A
2 - South	1 - A249 onslip (SB)			571				486				
	2 - B2005 - link	780	195	81	1749	0.446	780	490	0.8	0.8	3.717	A
	3 - A249 offslip (SB)	334	83	860	782	0.427	335	0	1.1	0.8	8.079	A
	4 - Swale Way	963	241	521	675	1.427	675	675	701.9	773.9	3942.986	F
	5 - Grovehurst Road	402	101	651	668	0.602	406	545	2.6	1.6	13.980	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.24	0.05	0.79	9.00	14.35			N/A	N/A
	2 - Grovehurst Road	0.38	0.00	0.00	0.38	0.38			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.56	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.57	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	65.57	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.52	1.05	1.50	1.90	1.95			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.73	0.28	5.94	26.13	35.40			N/A	N/A
	2 - Grovehurst Road	0.59	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.74	0.20	0.93	1.39	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.96	0.09	0.92	1.55	1.89			N/A	N/A
	4 - Swale Way	186.84	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.35	0.09	1.42	5.38	7.42			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	55.98	25.85	52.86	83.63	94.06			N/A	N/A
	2 - Grovehurst Road	0.92	0.03	0.26	0.92	0.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.25	0.59	0.59			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.83	0.03	0.25	0.83	0.83			N/A	N/A
	3 - A249 offslip (SB)	1.79	0.03	0.28	1.79	5.79			N/A	N/A
	4 - Swale Way	382.28	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.78	0.04	0.44	13.30	24.70			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	101.22	57.88	97.92	139.58	153.20			N/A	N/A
	2 - Grovehurst Road	0.94	0.03	0.28	0.94	3.50			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.28	0.65	2.19			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.03	0.26	0.84	0.86			N/A	N/A
	3 - A249 offslip (SB)	1.84	0.03	0.28	1.84	4.53			N/A	N/A
	4 - Swale Way	578.03	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.16	0.03	0.34	9.91	27.64			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	97.47	49.33	93.20	141.40	157.50			N/A	N/A
	2 - Grovehurst Road	0.67	0.08	0.79	1.37	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.82	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.10	0.07	0.90	1.95	2.72			N/A	N/A
	4 - Swale Way	701.91	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.59	0.04	0.43	7.14	12.70			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	55.61	18.26	50.48	92.76	107.90			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.45	1.28	1.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.76	0.05	0.48	1.48	1.99			N/A	N/A
	4 - Swale Way	773.94	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.57	0.03	0.35	3.82	8.02			N/A	N/A

# 2031 + WKN Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	254.77	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	389.50	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D25	2031 + WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	871	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	699	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	829
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	147	327	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	141	0	0	918	183
	3 - A249 offslip (SB)	1	18	0	377	174
	4 - Swale Way	396	226	0	0	77
	5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	7	0	19
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	7	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	17	6
	3 - A249 offslip (SB)	0	6	0	9	4
	4 - Swale Way	40	10	0	0	9
	5 - Grovehurst Road	1	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.17	339.22	80.0	132.9	F	799	1199
	2 - Grovehurst Road	1.16	329.05	39.8	76.5	F	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.29	3.29	0.4	1.7	A	416	624
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.26	2.0	5.0	A	1112	1669
	3 - A249 offslip (SB)	1.50	1164.24	137.4	186.3	F	523	785
	4 - Swale Way	1.23	503.84	86.8	147.3	F	641	962
	5 - Grovehurst Road	1.15	311.92	52.9	96.5	F	561	841

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	656	164	350	880	0.745	645	0	0.0	2.7	14.702	B
	2 - Grovehurst Road	331	83	855	567	0.584	326	140	0.0	1.4	14.628	B

	3 - A249 onslip (NB)			921				260				
	4 - B2005 - link	351	88	0	1530	0.229	350	921	0.0	0.3	3.048	A
2 - South	1 - A249 onslip (SB)			479				548				
	2 - B2005 - link	923	231	127	1768	0.522	918	351	0.0	1.1	4.218	A
	3 - A249 offslip (SB)	429	107	1046	646	0.664	422	0	0.0	1.9	15.549	C
	4 - Swale Way	526	132	382	658	0.800	512	1085	0.0	3.5	22.908	C
	5 - Grovehurst Road	460	115	574	679	0.677	452	320	0.0	2.0	15.352	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	783	196	408	839	0.933	760	0	2.7	8.5	37.515	E
	2 - Grovehurst Road	396	99	1005	467	0.846	384	163	1.4	4.3	38.631	E
	3 - A249 onslip (NB)			1085				304				
	4 - B2005 - link	409	102	0	1530	0.267	408	1085	0.3	0.4	3.210	A
2 - South	1 - A249 onslip (SB)			559				639				
	2 - B2005 - link	1087	272	150	1755	0.620	1085	409	1.1	1.6	5.358	A
	3 - A249 offslip (SB)	512	128	1235	498	1.029	468	0	1.9	13.0	77.181	F
	4 - Swale Way	628	157	442	629	0.999	592	1262	3.5	12.6	65.004	F
	5 - Grovehurst Road	549	137	666	612	0.898	533	368	2.0	6.1	39.231	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	959	240	433	822	1.167	814	0	8.5	44.8	132.075	F
	2 - Grovehurst Road	484	121	1074	422	1.149	411	174	4.3	22.6	139.833	F
	3 - A249 onslip (NB)			1163				322				
	4 - B2005 - link	434	108	0	1530	0.283	433	1163	0.4	0.4	3.283	A
2 - South	1 - A249 onslip (SB)			597				680				
	2 - B2005 - link	1165	291	162	1748	0.666	1163	435	1.6	2.0	6.143	A
	3 - A249 offslip (SB)	628	157	1326	427	1.468	426	0	13.0	63.3	341.810	F
	4 - Swale Way	770	192	448	626	1.229	623	1304	12.6	49.3	194.537	F
	5 - Grovehurst Road	673	168	700	586	1.148	577	370	6.1	30.2	131.480	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	959	240	436	820	1.170	818	0	44.8	80.0	284.434	F
	2 - Grovehurst Road	484	121	1080	418	1.160	415	175	22.6	39.8	287.736	F
	3 - A249 onslip (NB)			1171				325				
	4 - B2005 - link	436	109	0	1530	0.285	436	1171	0.4	0.4	3.291	A
2 - South	1 - A249 onslip (SB)			601				684				
	2 - B2005 - link	1173	293	164	1747	0.671	1173	437	2.0	2.0	6.264	A
	3 - A249 offslip (SB)	628	157	1336	419	1.497	419	0	63.3	115.5	774.112	F
	4 - Swale Way	770	192	448	626	1.229	625	1308	49.3	85.4	399.116	F
	5 - Grovehurst Road	673	168	704	584	1.153	582	370	30.2	52.9	271.038	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	783	196	433	822	0.953	812	0	80.0	72.8	339.222	F
	2 - Grovehurst Road	396	99	1071	423	0.934	413	173	39.8	35.5	329.052	F
	3 - A249 onslip (NB)			1162				322				
	4 - B2005 - link	433	108	0	1530	0.283	433	1162	0.4	0.4	3.285	A
2 - South	1 - A249 onslip (SB)			596				680				
	2 - B2005 - link	1164	291	162	1748	0.666	1164	434	2.0	2.0	6.164	A
	3 - A249 offslip (SB)	512	128	1326	427	1.199	427	0	115.5	136.8	1074.313	F
	4 - Swale Way	628	157	448	626	1.004	623	1305	85.4	86.8	503.838	F
	5 - Grovehurst Road	549	137	701	586	0.937	575	370	52.9	46.5	311.923	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	656	164	432	822	0.797	811	0	72.8	34.0	240.178	F



1 - North	2 - Grovehurst Road	331	83	1070	424	0.781	412	173	35.5	15.2	227.827	F
	3 - A249 onslip (NB)			1161				322				
	4 - B2005 - link	432	108	0	1530	0.283	432	1161	0.4	0.4	3.282	A
	1 - A249 onslip (SB)			596				678				
2 - South	2 - B2005 - link	1163	291	162	1748	0.665	1163	433	2.0	2.0	6.159	A
	3 - A249 offslip (SB)	429	107	1325	428	1.003	427	0	136.8	137.4	1164.237	F
	4 - Swale Way	526	132	448	626	0.841	619	1304	86.8	63.6	438.978	F
	5 - Grovehurst Road	460	115	697	589	0.781	576	370	46.5	17.4	205.509	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.74	0.06	1.09	7.20	10.77			N/A	N/A
	2 - Grovehurst Road	1.35	0.05	0.45	3.45	5.47			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.08	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.88	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	3.51	0.04	0.40	9.49	18.34			N/A	N/A
	5 - Grovehurst Road	1.99	0.06	0.99	4.89	7.14			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	8.53	0.19	4.21	21.38	29.51			N/A	N/A
	2 - Grovehurst Road	4.29	0.08	1.22	11.42	16.77			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.60	0.07	1.02	3.60	4.98			N/A	N/A
	3 - A249 offslip (SB)	12.97	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	12.58	0.27	6.74	31.24	42.67			N/A	N/A
	5 - Grovehurst Road	6.14	0.14	2.79	15.42	21.47			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	44.79	17.01	41.31	71.32	81.83			N/A	N/A
	2 - Grovehurst Road	22.58	5.50	19.58	39.81	47.29			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.96	0.03	0.27	1.96	1.96			N/A	N/A
	3 - A249 offslip (SB)	63.32	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	49.34	19.05	45.62	78.23	89.61			N/A	N/A
	5 - Grovehurst Road	30.19	9.02	26.94	51.10	59.84			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	79.95	38.17	75.93	118.49	132.88			N/A	N/A
	2 - Grovehurst Road	39.82	13.27	36.13	65.84	76.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.30	1.26	1.67			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.01	0.03	0.26	2.01	2.01			N/A	N/A
	3 - A249 offslip (SB)	115.48	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	85.39	44.00	81.75	122.88	136.61			N/A	N/A
	5 - Grovehurst Road	52.94	20.40	48.99	84.18	96.52			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	72.81	28.40	67.60	115.73	132.57			N/A	N/A
	2 - Grovehurst Road	35.45	8.18	30.65	64.06	76.54			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.01	0.18	1.10	3.75	4.80			N/A	N/A
	3 - A249 offslip (SB)	136.80	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	86.79	39.77	82.11	130.70	147.25			N/A	N/A
	5 - Grovehurst Road	46.50	13.62	41.56	79.78	93.66			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	33.95	8.27	29.56	60.54	72.03			N/A	N/A
	2 - Grovehurst Road	15.17	0.96	10.39	33.70	43.61			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.00	0.49	1.31	3.19	3.89			N/A	N/A
	3 - A249 offslip (SB)	137.45	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	63.62	18.53	56.92	109.73	128.92			N/A	N/A
	5 - Grovehurst Road	17.43	1.58	13.31	35.71	44.73			N/A	N/A

# 2031 + WKN Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	267.56	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1721.89	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D26	2031 + WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	836	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	444	100.000
	4 - Swale Way		ONE HOUR	✓	1297	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From				
	1 - A249 offslip (NB)	0	180	0	656
	2 - Grovehurst Road	0	0	27	200
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	262	522	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	488	322
	3 - A249 offslip (SB)	1	27	0	200	216
	4 - Swale Way	706	432	0	0	159
	5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	22
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	4	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	29	1
	3 - A249 offslip (SB)	0	11	0	8	4
	4 - Swale Way	19	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.26	487.94	105.4	164.4	F	767	1151
	2 - Grovehurst Road	0.49	13.83	0.9	3.5	B	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.63	0.6	2.2	A	536	804
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.46	3.87	0.8	1.5	A	751	1127
	3 - A249 offslip (SB)	0.66	14.03	1.9	6.1	B	407	611
	4 - Swale Way	2.28	4049.07	796.9	179.0	F	1190	1785
	5 - Grovehurst Road	0.85	33.97	5.2	28.1	D	490	735

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	629	157	489	800	0.786	616	0	0.0	3.3	18.392	C
	2 - Grovehurst Road	171	43	809	616	0.278	169	296	0.0	0.4	8.038	A

	3 - A249 onslip (NB)			633				345				
	4 - B2005 - link	490	123	0	1580	0.310		489	633	0.0	0.4	3.291 A
2 - South	1 - A249 onslip (SB)			568					495			
	2 - B2005 - link	632	158	79	1740	0.363		630	490	0.0	0.6	3.237 A
	3 - A249 offslip (SB)	334	84	709	903	0.370		332	0	0.0	0.6	6.280 A
	4 - Swale Way	976	244	452	712	1.372		701	589	0.0	68.8	188.328 F
	5 - Grovehurst Road	402	101	667	655	0.613		396	486	0.0	1.5	13.575 B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	752	188	530	772	0.973	719	0	3.3	11.4	50.112	F
	2 - Grovehurst Road	204	51	918	541	0.377	203	332	0.4	0.6	10.637	B
	3 - A249 onslip (NB)			744				377				
	4 - B2005 - link	531	133	0	1580	0.336	530	744	0.4	0.5	3.428	A
2 - South	1 - A249 onslip (SB)			624				498				
	2 - B2005 - link	743	186	95	1731	0.429	742	530	0.6	0.7	3.638	A
	3 - A249 offslip (SB)	399	100	837	799	0.500	398	0	0.6	1.0	8.931	A
	4 - Swale Way	1166	291	535	666	1.752	665	699	68.8	193.9	740.381	F
	5 - Grovehurst Road	480	120	645	671	0.716	477	555	1.5	2.4	18.215	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	920	230	583	736	1.251	732	0	11.4	58.4	185.254	F
	2 - Grovehurst Road	250	62	963	512	0.488	249	353	0.6	0.9	13.601	B
	3 - A249 onslip (NB)			794				418				
	4 - B2005 - link	584	146	0	1580	0.369	583	794	0.5	0.6	3.611	A
2 - South	1 - A249 onslip (SB)			698				501				
	2 - B2005 - link	788	197	115	1720	0.458	787	583	0.7	0.8	3.859	A
	3 - A249 offslip (SB)	489	122	902	747	0.655	486	0	1.0	1.8	13.597	B
	4 - Swale Way	1428	357	603	628	2.274	628	784	193.9	393.9	1690.921	F
	5 - Grovehurst Road	588	147	620	688	0.854	578	611	2.4	4.8	30.164	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	920	230	588	733	1.256	732	0	58.4	105.4	406.691	F
	2 - Grovehurst Road	250	62	966	510	0.490	250	354	0.9	0.9	13.829	B
	3 - A249 onslip (NB)			795				422				
	4 - B2005 - link	589	147	0	1580	0.372	588	795	0.6	0.6	3.628	A
2 - South	1 - A249 onslip (SB)			704				502				
	2 - B2005 - link	789	197	116	1719	0.459	788	588	0.8	0.8	3.869	A
	3 - A249 offslip (SB)	489	122	905	745	0.656	489	0	1.8	1.9	14.029	B
	4 - Swale Way	1428	357	605	627	2.278	627	788	393.9	594.2	2729.811	F
	5 - Grovehurst Road	588	147	620	689	0.854	586	613	4.8	5.2	33.970	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	752	188	536	768	0.978	761	0	105.4	103.1	487.942	F
	2 - Grovehurst Road	204	51	954	515	0.396	205	343	0.9	0.7	11.656	B
	3 - A249 onslip (NB)			778				381				
	4 - B2005 - link	536	134	0	1580	0.339	536	778	0.6	0.5	3.447	A
2 - South	1 - A249 onslip (SB)			632				497				
	2 - B2005 - link	778	195	97	1729	0.450	778	535	0.8	0.8	3.787	A
	3 - A249 offslip (SB)	399	100	876	767	0.520	402	0	1.9	1.1	9.942	A
	4 - Swale Way	1166	291	553	656	1.778	656	724	594.2	721.8	3536.797	F
	5 - Grovehurst Road	480	120	639	675	0.711	491	570	5.2	2.6	20.447	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	629	157	489	800	0.786	793	0	103.1	62.2	377.248	F

1 - North	2 - Grovehurst Road	171	43	947	517	0.331	172	334	0.7	0.5	10.457	B
	3 - A249 onslip (NB)			773				346				
	4 - B2005 - link	488	122	0	1580	0.309	489	773	0.5	0.4	3.300	A
2 - South	1 - A249 onslip (SB)			568				491				
	2 - B2005 - link	779	195	81	1739	0.448	779	487	0.8	0.8	3.748	A
	3 - A249 offslip (SB)	334	84	859	779	0.429	336	0	1.1	0.8	8.143	A
	4 - Swale Way	976	244	517	676	1.444	676	678	721.8	796.9	4049.066	F
	5 - Grovehurst Road	402	101	653	666	0.604	406	540	2.6	1.6	14.079	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.34	0.05	0.56	9.39	15.43			N/A	N/A
	2 - Grovehurst Road	0.38	0.00	0.00	0.38	0.38			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.57	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.58	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	68.78	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.53	1.05	1.50	1.90	1.95			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	11.36	0.29	6.32	27.71	37.54			N/A	N/A
	2 - Grovehurst Road	0.60	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.75	0.21	0.93	1.39	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.98	0.09	0.92	1.59	1.92			N/A	N/A
	4 - Swale Way	193.92	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.36	0.09	1.43	5.42	7.48			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	58.36	27.32	55.20	86.79	97.48			N/A	N/A
	2 - Grovehurst Road	0.93	0.03	0.26	0.93	0.93			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.58	0.03	0.25	0.58	0.58			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.03	0.25	0.84	0.84			N/A	N/A
	3 - A249 offslip (SB)	1.82	0.03	0.28	1.82	6.07			N/A	N/A
	4 - Swale Way	393.93	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.84	0.04	0.44	13.53	24.94			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	105.44	61.27	102.17	144.36	158.09			N/A	N/A
	2 - Grovehurst Road	0.95	0.03	0.28	0.95	3.49			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.28	0.69	2.22			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.03	0.26	0.84	0.84			N/A	N/A
	3 - A249 offslip (SB)	1.87	0.03	0.28	1.87	4.62			N/A	N/A
	4 - Swale Way	594.25	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.23	0.03	0.34	10.29	28.15			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	103.07	53.60	98.85	147.99	164.36			N/A	N/A
	2 - Grovehurst Road	0.67	0.08	0.79	1.37	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.82	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.11	0.07	0.90	1.99	2.80			N/A	N/A
	4 - Swale Way	721.81	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.62	0.04	0.43	7.22	12.85			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	62.23	21.14	56.76	102.93	119.38			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.45	1.28	1.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.76	0.05	0.48	1.53	2.08			N/A	N/A
	4 - Swale Way	796.89	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.58	0.03	0.35	3.84	8.09			N/A	N/A

# 2031 + K3 and WKN Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	259.05	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	394.50	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D27	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	874	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	702	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	832
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only



	4 - B2005 - link	0	147	327	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	141	0	0	921	183
	3 - A249 offslip (SB)	1	18	0	377	174
	4 - Swale Way	399	226	0	0	77
	5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	7	0	19
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	7	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	17	6
	3 - A249 offslip (SB)	0	6	0	9	4
	4 - Swale Way	40	10	0	0	9
	5 - Grovehurst Road	1	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.17	346.24	81.4	135.0	F	802	1203
	2 - Grovehurst Road	1.16	330.47	39.9	76.8	F	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.28	3.29	0.4	1.7	A	415	623
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	6.27	2.0	5.0	A	1114	1670
	3 - A249 offslip (SB)	1.50	1171.97	138.2	186.3	F	523	785
	4 - Swale Way	1.23	516.79	89.3	150.3	F	644	966
	5 - Grovehurst Road	1.15	314.07	53.2	96.6	F	561	841

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	658	164	350	880	0.748	647	0	0.0	2.8	14.822	B
	2 - Grovehurst Road	331	83	857	565	0.586	326	139	0.0	1.4	14.711	B

	3 - A249 onslip (NB)			923				260				
	4 - B2005 - link	351	88	0	1530	0.229	350	923	0.0	0.3	3.048	A
2 - South	1 - A249 onslip (SB)			478				550				
	2 - B2005 - link	925	231	127	1768	0.523	921	351	0.0	1.1	4.229	A
	3 - A249 offslip (SB)	429	107	1048	645	0.666	422	0	0.0	1.9	15.658	C
	4 - Swale Way	529	132	382	658	0.804	514	1087	0.0	3.6	23.214	C
	5 - Grovehurst Road	460	115	576	678	0.679	452	320	0.0	2.0	15.457	C

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	786	196	408	839	0.936	762	0	2.8	8.7	38.108	E
	2 - Grovehurst Road	396	99	1007	466	0.848	384	163	1.4	4.3	39.037	E
	3 - A249 onslip (NB)			1087				303				
	4 - B2005 - link	408	102	0	1530	0.267	408	1087	0.3	0.4	3.209	A
2 - South	1 - A249 onslip (SB)			559				641				
	2 - B2005 - link	1089	272	150	1755	0.621	1087	409	1.1	1.6	5.375	A
	3 - A249 offslip (SB)	512	128	1237	497	1.032	467	0	1.9	13.2	78.349	F
	4 - Swale Way	631	158	441	629	1.003	593	1263	3.6	13.0	66.488	F
	5 - Grovehurst Road	549	137	667	610	0.900	532	367	2.0	6.2	39.637	E

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	962	241	433	822	1.170	815	0	8.7	45.6	134.038	F
	2 - Grovehurst Road	484	121	1074	421	1.150	411	173	4.3	22.7	140.508	F
	3 - A249 onslip (NB)			1163				322				
	4 - B2005 - link	433	108	0	1530	0.283	433	1163	0.4	0.4	3.281	A
2 - South	1 - A249 onslip (SB)			596				681				
	2 - B2005 - link	1166	291	162	1748	0.667	1164	434	1.6	2.0	6.153	A
	3 - A249 offslip (SB)	628	157	1326	427	1.471	426	0	13.2	63.7	344.878	F
	4 - Swale Way	773	193	447	626	1.234	623	1305	13.0	50.5	198.863	F
	5 - Grovehurst Road	673	168	701	586	1.149	576	369	6.2	30.3	132.224	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	962	241	435	820	1.173	819	0	45.6	81.4	288.993	F
	2 - Grovehurst Road	484	121	1080	418	1.160	415	174	22.7	39.9	288.750	F
	3 - A249 onslip (NB)			1171				324				
	4 - B2005 - link	435	109	0	1530	0.285	435	1171	0.4	0.4	3.288	A
2 - South	1 - A249 onslip (SB)			600				685				
	2 - B2005 - link	1173	293	164	1747	0.672	1173	436	2.0	2.0	6.272	A
	3 - A249 offslip (SB)	628	157	1337	419	1.499	418	0	63.7	116.0	778.887	F
	4 - Swale Way	773	193	447	626	1.234	626	1308	50.5	87.3	407.921	F
	5 - Grovehurst Road	673	168	704	583	1.153	581	369	30.3	53.2	272.351	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	786	196	432	822	0.955	812	0	81.4	74.7	346.242	F
	2 - Grovehurst Road	396	99	1072	423	0.935	413	173	39.9	35.6	330.473	F
	3 - A249 onslip (NB)			1163				322				
	4 - B2005 - link	432	108	0	1530	0.283	432	1163	0.4	0.4	3.282	A
2 - South	1 - A249 onslip (SB)			595				681				
	2 - B2005 - link	1165	291	162	1748	0.666	1165	433	2.0	2.0	6.175	A
	3 - A249 offslip (SB)	512	128	1326	427	1.201	427	0	116.0	137.4	1080.530	F
	4 - Swale Way	631	158	448	626	1.008	623	1305	87.3	89.3	516.792	F
	5 - Grovehurst Road	549	137	701	585	0.938	574	370	53.2	46.9	314.067	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	658	164	431	823	0.800	812	0	74.7	36.2	248.929	F

1 - North	2 - Grovehurst Road	331	83	1071	424	0.782	412	173	35.6	15.4	229.602	F
	3 - A249 onslip (NB)			1162				321				
	4 - B2005 - link	431	108	0	1530	0.282	431	1162	0.4	0.4	3.277	A
2 - South	1 - A249 onslip (SB)			595				679				
	2 - B2005 - link	1164	291	162	1748	0.666	1164	432	2.0	2.0	6.168	A
	3 - A249 offslip (SB)	429	107	1326	427	1.005	426	0	137.4	138.2	1171.972	F
	4 - Swale Way	529	132	447	626	0.844	619	1305	89.3	66.6	454.629	F
	5 - Grovehurst Road	460	115	697	588	0.782	576	369	46.9	17.9	208.100	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.78	0.06	1.03	7.39	11.17			N/A	N/A
	2 - Grovehurst Road	1.36	0.05	0.45	3.48	5.53			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.09	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.89	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	3.58	0.04	0.39	9.50	18.98			N/A	N/A
	5 - Grovehurst Road	2.00	0.06	0.98	4.94	7.26			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	8.72	0.19	4.31	21.87	30.18			N/A	N/A
	2 - Grovehurst Road	4.34	0.08	1.26	11.54	16.90			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.61	0.07	1.02	3.62	5.01			N/A	N/A
	3 - A249 offslip (SB)	13.21	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	12.98	0.27	6.90	32.39	44.31			N/A	N/A
	5 - Grovehurst Road	6.21	0.15	2.85	15.58	21.66			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	45.58	17.49	42.10	72.40	83.01			N/A	N/A
	2 - Grovehurst Road	22.68	5.55	19.67	39.93	47.42			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.97	0.03	0.27	1.97	1.97			N/A	N/A
	3 - A249 offslip (SB)	63.71	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	50.50	19.52	46.72	80.11	91.78			N/A	N/A
	5 - Grovehurst Road	30.34	9.10	27.09	51.28	60.00			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	81.38	39.30	77.39	120.10	134.52			N/A	N/A
	2 - Grovehurst Road	39.95	13.35	36.25	65.94	76.52			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.30	1.26	1.66			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.02	0.03	0.26	2.02	2.02			N/A	N/A
	3 - A249 offslip (SB)	116.00	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	87.34	45.34	83.69	125.35	139.23			N/A	N/A
	5 - Grovehurst Road	53.17	20.57	49.21	84.36	96.64			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	74.72	29.62	69.50	118.08	135.00			N/A	N/A
	2 - Grovehurst Road	35.62	8.25	30.82	64.31	76.81			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.01	0.18	1.10	3.77	4.83			N/A	N/A
	3 - A249 offslip (SB)	137.44	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	89.28	41.54	84.61	133.69	150.35			N/A	N/A
	5 - Grovehurst Road	46.87	13.81	41.92	80.31	94.24			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	36.19	8.74	31.49	64.72	77.04			N/A	N/A
	2 - Grovehurst Road	15.40	0.98	10.55	34.20	44.24			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.01	0.48	1.31	3.21	3.91			N/A	N/A
	3 - A249 offslip (SB)	138.22	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	66.61	20.30	59.96	113.63	133.03			N/A	N/A
	5 - Grovehurst Road	17.88	1.78	13.80	36.30	45.29			N/A	N/A

# 2031 + K3 and WKN Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	282.17	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1750.21	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D28	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	838	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	444	100.000
	4 - Swale Way		ONE HOUR	✓	1300	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	658
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	262	523	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	42	0	0	490	322
	3 - A249 offslip (SB)	1	27	0	200	216
	4 - Swale Way	708	433	0	0	159
	5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	1	0	23
	2 - Grovehurst Road	0	0	0	1
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	2	0	0	30	1
	3 - A249 offslip (SB)	0	11	0	8	4
	4 - Swale Way	20	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.27	512.52	109.4	171.0	F	769	1153
	2 - Grovehurst Road	0.49	13.84	0.9	3.5	B	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.60	0.6	2.2	A	539	808
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.46	3.90	0.8	1.4	A	750	1126
	3 - A249 offslip (SB)	0.66	14.11	1.9	6.2	B	407	611
	4 - Swale Way	2.29	4103.27	804.9	178.2	F	1193	1789
	5 - Grovehurst Road	0.86	34.20	5.3	28.4	D	490	735

## Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	631	158	491	796	0.793	617	0	0.0	3.5	18.913	C
	2 - Grovehurst Road	171	43	811	613	0.279	169	296	0.0	0.4	8.088	A

	3 - A249 onslip (NB)			634				347					
	4 - B2005 - link	493	123	0	1591	0.310		491	634	0.0	0.4	3.267	A
2 - South	1 - A249 onslip (SB)			567					494				
	2 - B2005 - link	634	159	79	1731	0.367		632	488	0.0	0.6	3.269	A
	3 - A249 offslip (SB)	334	84	711	899	0.372		332	0	0.0	0.6	6.328	A
	4 - Swale Way	979	245	452	708	1.382		698	591	0.0	70.2	192.834	F
	5 - Grovehurst Road	402	101	665	655	0.614		396	485	0.0	1.5	13.592	B

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	753	188	533	768	0.981	719	0	3.5	12.1	52.722	F
	2 - Grovehurst Road	204	51	919	538	0.379	203	332	0.4	0.6	10.709	B
	3 - A249 onslip (NB)			743				379				
	4 - B2005 - link	533	133	0	1591	0.335	533	743	0.4	0.5	3.402	A
2 - South	1 - A249 onslip (SB)			623				496				
	2 - B2005 - link	744	186	95	1722	0.432	743	529	0.6	0.8	3.675	A
	3 - A249 offslip (SB)	399	100	837	795	0.502	398	0	0.6	1.0	9.016	A
	4 - Swale Way	1169	292	535	662	1.764	662	700	70.2	196.8	755.385	F
	5 - Grovehurst Road	480	120	643	670	0.716	477	554	1.5	2.4	18.255	C

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	923	231	586	732	1.261	728	0	12.1	60.6	193.485	F
	2 - Grovehurst Road	250	62	963	511	0.489	249	352	0.6	0.9	13.624	B
	3 - A249 onslip (NB)			791				420				
	4 - B2005 - link	587	147	0	1591	0.369	586	791	0.5	0.6	3.585	A
2 - South	1 - A249 onslip (SB)			697				500				
	2 - B2005 - link	786	196	115	1711	0.459	785	582	0.8	0.8	3.887	A
	3 - A249 offslip (SB)	489	122	900	745	0.656	485	0	1.0	1.8	13.680	B
	4 - Swale Way	1431	358	602	626	2.287	626	784	196.8	398.1	1716.863	F
	5 - Grovehurst Road	588	147	618	687	0.855	578	609	2.4	4.9	30.320	D

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	923	231	592	728	1.267	728	0	60.6	109.4	423.936	F
	2 - Grovehurst Road	250	62	966	510	0.490	250	354	0.9	0.9	13.842	B
	3 - A249 onslip (NB)			792				424				
	4 - B2005 - link	592	148	0	1591	0.372	592	792	0.6	0.6	3.602	A
2 - South	1 - A249 onslip (SB)			703				501				
	2 - B2005 - link	786	197	116	1710	0.460	786	587	0.8	0.8	3.896	A
	3 - A249 offslip (SB)	489	122	903	743	0.658	489	0	1.8	1.9	14.105	B
	4 - Swale Way	1431	358	604	625	2.291	625	788	398.1	599.8	2765.090	F
	5 - Grovehurst Road	588	147	618	688	0.855	586	611	4.9	5.3	34.205	D

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	753	188	539	764	0.987	756	0	109.4	108.6	512.516	F
	2 - Grovehurst Road	204	51	953	515	0.396	205	342	0.9	0.7	11.666	B
	3 - A249 onslip (NB)			775				383				
	4 - B2005 - link	539	135	0	1591	0.339	539	775	0.6	0.5	3.422	A
2 - South	1 - A249 onslip (SB)			632				496				
	2 - B2005 - link	776	194	97	1721	0.451	776	534	0.8	0.8	3.812	A
	3 - A249 offslip (SB)	399	100	873	766	0.521	402	0	1.9	1.1	9.982	A
	4 - Swale Way	1169	292	552	653	1.788	653	724	599.8	728.6	3582.405	F
	5 - Grovehurst Road	480	120	637	674	0.712	491	568	5.3	2.6	20.558	C

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	631	158	491	796	0.793	788	0	108.6	69.3	407.949	F

1 - North	2 - Grovehurst Road	171	43	946	516	0.331	172	333	0.7	0.5	10.474	B
	3 - A249 onslip (NB)			770				348				
	4 - B2005 - link	491	123	0	1591	0.308	491	770	0.5	0.4	3.276	A
2 - South	1 - A249 onslip (SB)			567				490				
	2 - B2005 - link	777	194	81	1730	0.449	777	487	0.8	0.8	3.779	A
	3 - A249 offslip (SB)	334	84	857	777	0.430	336	0	1.1	0.8	8.175	A
	4 - Swale Way	979	245	516	674	1.453	674	677	728.6	804.9	4103.275	F
	5 - Grovehurst Road	402	101	651	665	0.604	406	539	2.6	1.6	14.124	B

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.45	0.05	0.47	9.73	16.63			N/A	N/A
	2 - Grovehurst Road	0.38	0.00	0.00	0.38	0.38			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.58	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.59	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	70.18	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.53	1.05	1.50	1.90	1.95			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	12.08	0.30	6.74	29.49	39.93			N/A	N/A
	2 - Grovehurst Road	0.60	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.75	0.21	0.94	1.39	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.99	0.09	0.93	1.61	1.93			N/A	N/A
	4 - Swale Way	196.75	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.37	0.09	1.43	5.44	7.51			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	60.64	28.67	57.44	89.89	100.85			N/A	N/A
	2 - Grovehurst Road	0.93	0.03	0.26	0.93	0.93			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.58	0.03	0.25	0.58	0.58			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.84	0.03	0.25	0.84	0.84			N/A	N/A
	3 - A249 offslip (SB)	1.83	0.03	0.28	1.83	6.20			N/A	N/A
	4 - Swale Way	398.14	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.86	0.04	0.44	13.63	25.05			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	109.37	64.46	106.13	148.89	162.81			N/A	N/A
	2 - Grovehurst Road	0.95	0.03	0.28	0.95	3.46			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.28	0.71	2.23			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.03	0.26	0.85	0.85			N/A	N/A
	3 - A249 offslip (SB)	1.88	0.03	0.28	1.88	4.64			N/A	N/A
	4 - Swale Way	599.81	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.26	0.03	0.34	10.47	28.39			N/A	N/A



## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	108.65	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.67	0.08	0.78	1.37	1.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.83	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.11	0.07	0.89	2.03	2.84			N/A	N/A
	4 - Swale Way	728.60	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.63	0.04	0.43	7.25	12.91			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	69.28	24.62	63.59	113.25	130.86			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.45	1.28	1.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.82	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.77	0.05	0.47	1.54	2.13			N/A	N/A
	4 - Swale Way	804.87	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.58	0.03	0.35	3.84	8.12			N/A	N/A

# 2031 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	1290.38	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1004.92	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D29	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1110	100.000
	2 - Grovehurst Road		ONE HOUR	✓	737	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	620	100.000
	4 - Swale Way		ONE HOUR	✓	769	100.000
	5 - Grovehurst Road		ONE HOUR	✓	775	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To
	1 - A249 offslip    2 - Grovehurst    3 - A249 onslip    4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	123	0	987
		2 - Grovehurst Road	0	0	38	699
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	159	403	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	419	0	0	1034	231
		3 - A249 offslip (SB)	1	22	0	381	216
		4 - Swale Way	462	229	0	0	78
5 - Grovehurst Road	289	313	0	173	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	2	0	16
		2 - Grovehurst Road	0	0	5	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	4	6	0		

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	0	0	0	16	5
		3 - A249 offslip (SB)	0	5	0	9	3
		4 - Swale Way	36	10	0	0	9
5 - Grovehurst Road	0	1	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.39	973.55	241.8	241.8	F	1019	1528
	2 - Grovehurst Road	1.82	2596.30	335.6	195.8	F	676	1014
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.26	3.15	0.3	1.3	A	393	589
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	5.93	2.0	6.1	A	1203	1804
	3 - A249 offslip (SB)	1.53	1492.71	186.7	187.3	F	569	853
	4 - Swale Way	1.56	1638.33	250.3	159.3	F	706	1058
	5 - Grovehurst Road	1.57	1657.85	254.3	197.4	F	711	1067

## Main Results for each time segment

07:15 - 07:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	836	209	380	890	0.939	800	0	0.0	8.9	32.560	D
	2 - Grovehurst Road	555	139	984	500	1.109	476	196	0.0	19.7	92.800	F
	3 - A249 onslip (NB)			1163				297				
	4 - B2005 - link	382	95	0	1539	0.248	380	1163	0.0	0.3	3.105	A
2 - South	1 - A249 onslip (SB)			502				798				
	2 - B2005 - link	1163	291	118	1820	0.639	1156	384	0.0	1.7	5.370	A
	3 - A249 offslip (SB)	467	117	1275	491	0.950	436	0	0.0	7.8	50.355	F
	4 - Swale Way	579	145	614	555	1.043	520	1096	0.0	14.8	68.527	F
	5 - Grovehurst Road	583	146	771	569	1.026	529	363	0.0	13.5	63.303	F

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	998	249	394	880	1.134	871	0	8.9	40.7	116.577	F
	2 - Grovehurst Road	663	166	1057	452	1.466	451	208	19.7	72.5	385.390	F
	3 - A249 onslip (NB)			1202				306				
	4 - B2005 - link	394	99	0	1539	0.256	394	1202	0.3	0.3	3.144	A
2 - South	1 - A249 onslip (SB)			518				829				
	2 - B2005 - link	1208	302	121	1818	0.664	1207	397	1.7	1.9	5.877	A
	3 - A249 offslip (SB)	557	139	1328	450	1.238	446	0	7.8	35.8	196.402	F
	4 - Swale Way	691	173	638	544	1.271	542	1136	14.8	52.2	238.883	F
	5 - Grovehurst Road	697	174	803	546	1.276	543	376	13.5	51.8	232.897	F

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1222	306	395	880	1.390	879	0	40.7	126.5	351.297	F
	2 - Grovehurst Road	811	203	1065	447	1.817	447	209	72.5	163.7	964.170	F
	3 - A249 onslip (NB)			1205				306				
	4 - B2005 - link	395	99	0	1539	0.257	395	1205	0.3	0.3	3.146	A
2 - South	1 - A249 onslip (SB)			519				831				
	2 - B2005 - link	1211	303	121	1818	0.666	1211	397	1.9	2.0	5.929	A
	3 - A249 offslip (SB)	683	171	1333	447	1.529	446	0	35.8	94.9	541.263	F
	4 - Swale Way	847	212	640	543	1.560	543	1139	52.2	128.2	609.538	F
	5 - Grovehurst Road	853	213	806	544	1.568	544	377	51.8	129.1	609.829	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1222	306	395	879	1.390	879	0	126.5	212.2	699.880	F
	2 - Grovehurst Road	811	203	1065	446	1.818	446	209	163.7	255.0	1698.493	F
	3 - A249 onslip (NB)			1205				306				
	4 - B2005 - link	395	99	0	1539	0.257	395	1205	0.3	0.3	3.146	A
2 - South	1 - A249 onslip (SB)			519				831				
	2 - B2005 - link	1212	303	121	1818	0.666	1212	397	2.0	2.0	5.933	A
	3 - A249 offslip (SB)	683	171	1333	446	1.530	446	0	94.9	154.0	1015.284	F
	4 - Swale Way	847	212	640	543	1.560	543	1140	128.2	204.2	1111.407	F
	5 - Grovehurst Road	853	213	806	544	1.568	544	377	129.1	206.4	1119.037	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	998	249	395	879	1.135	879	0	212.2	241.8	935.264	F
	2 - Grovehurst Road	663	166	1065	446	1.484	446	209	255.0	309.0	2277.208	F
	3 - A249 onslip (NB)			1205				306				
	4 - B2005 - link	395	99	0	1539	0.257	395	1205	0.3	0.3	3.146	A
2 - South	1 - A249 onslip (SB)			519				831				
	2 - B2005 - link	1212	303	121	1818	0.666	1212	397	2.0	2.0	5.933	A
	3 - A249 offslip (SB)	557	139	1333	446	1.249	446	0	154.0	181.8	1363.836	F
	4 - Swale Way	691	173	640	543	1.274	543	1140	204.2	241.3	1485.693	F
	5 - Grovehurst Road	697	174	806	544	1.280	544	377	206.4	244.6	1499.937	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	836	209	395	879	0.950	876	0	241.8	231.8	973.548	F
	2 - Grovehurst Road	555	139	1062	449	1.237	449	209	309.0	335.6	2596.304	F
	3 - A249 onslip (NB)			1204				306				
	4 - B2005 - link	395	99	0	1539	0.257	395	1204	0.3	0.3	3.146	A
2 - South	1 - A249 onslip (SB)			519				831				
	2 - B2005 - link	1210	303	121	1818	0.666	1210	397	2.0	2.0	5.919	A
	3 - A249 offslip (SB)	467	117	1332	447	1.043	447	0	181.8	186.7	1492.714	F
	4 - Swale Way	579	145	639	543	1.066	543	1139	241.3	250.3	1638.332	F
	5 - Grovehurst Road	583	146	805	544	1.072	544	377	244.6	254.3	1657.853	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	8.91	0.03	0.28	8.91	9.82			N/A	N/A
	2 - Grovehurst Road	19.70	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.74	1.05	1.50	1.90	1.95			N/A	N/A
	3 - A249 offslip (SB)	7.81	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	14.76	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	13.50	>199	>199	>199	>199			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	40.72	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	72.54	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.94	0.08	1.21	4.42	6.11			N/A	N/A
	3 - A249 offslip (SB)	35.77	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	52.21	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	51.84	>199	>199	>199	>199			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	126.51	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	163.75	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.97	0.03	0.27	1.97	1.97			N/A	N/A
	3 - A249 offslip (SB)	94.89	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	128.20	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	129.13	>199	>199	>199	>199			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	212.20	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	255.00	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.03	0.31	1.18	1.25			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.98	0.03	0.26	1.98	1.98			N/A	N/A
	3 - A249 offslip (SB)	154.00	>199	>199	>199	>199			N/A	N/A

	4 - Swale Way	204.18	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	206.42	>199	>199	>199	>199			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	241.83	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	309.03	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.11	1.41	4.09	5.51			N/A	N/A
	3 - A249 offslip (SB)	181.79	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	241.31	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	244.55	>199	>199	>199	>199			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	231.79	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	335.61	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.23	1.16	3.56	4.49			N/A	N/A
	3 - A249 offslip (SB)	186.69	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	250.34	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	254.34	>199	>199	>199	>199			N/A	N/A

# 2031 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	1084.34	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	2487.54	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D30	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1192	100.000
	2 - Grovehurst Road		ONE HOUR	✓	389	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	529	100.000
	4 - Swale Way		ONE HOUR	✓	1376	100.000
	5 - Grovehurst Road		ONE HOUR	✓	613	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	430	0	762
		2 - Grovehurst Road	0	0	34	355
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	277	560	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	187	0	0	524	402
		3 - A249 offslip (SB)	1	39	0	202	287
		4 - Swale Way	780	435	0	0	161
5 - Grovehurst Road	150	356	0	107	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	0	0	19
		2 - Grovehurst Road	0	0	0	0
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	0	3	0		

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	1	0	0	27	1
		3 - A249 offslip (SB)	0	8	0	8	3
		4 - Swale Way	17	3	0	0	3
5 - Grovehurst Road	0	1	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.71	1877.99	442.7	178.3	F	1094	1641
	2 - Grovehurst Road	0.73	22.96	2.6	13.2	C	357	535
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.60	0.6	2.3	A	539	809
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.48	3.93	0.9	1.5	A	824	1235
	3 - A249 offslip (SB)	0.81	26.42	4.1	20.5	D	485	728
	4 - Swale Way	2.93	6015.44	1052.3	180.3	F	1263	1894
	5 - Grovehurst Road	0.98	87.19	15.7	60.4	F	562	844

## Main Results for each time segment

16:15 - 16:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay



Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	897	224	481	846	1.061	809	0	0.0	22.1	62.591	F
	2 - Grovehurst Road	293	73	839	610	0.480	289	451	0.0	0.9	11.111	B
	3 - A249 onslip (NB)			781				347				
	4 - B2005 - link	483	121	0	1591	0.304	481	781	0.0	0.4	3.242	A
2 - South	1 - A249 onslip (SB)			561				583				
	2 - B2005 - link	777	194	79	1799	0.432	774	482	0.0	0.8	3.502	A
	3 - A249 offslip (SB)	398	100	853	813	0.490	394	0	0.0	0.9	8.535	A
	4 - Swale Way	1036	259	653	607	1.706	602	594	0.0	108.5	341.464	F
	5 - Grovehurst Road	461	115	691	655	0.705	453	564	0.0	2.2	17.135	C

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1072	268	530	812	1.320	810	0	22.1	87.4	257.387	F
	2 - Grovehurst Road	350	87	872	590	0.593	348	468	0.9	1.4	14.754	B
	3 - A249 onslip (NB)			835				385				
	4 - B2005 - link	530	133	0	1591	0.333	530	835	0.4	0.5	3.394	A
2 - South	1 - A249 onslip (SB)			624				593				
	2 - B2005 - link	824	206	95	1790	0.461	824	529	0.8	0.8	3.726	A
	3 - A249 offslip (SB)	476	119	919	760	0.626	473	0	0.9	1.6	12.408	B
	4 - Swale Way	1237	309	728	566	2.186	566	663	108.5	276.3	1303.314	F
	5 - Grovehurst Road	551	138	674	667	0.826	544	620	2.2	4.1	27.486	D

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1312	328	581	776	1.692	776	0	87.4	221.6	727.312	F
	2 - Grovehurst Road	428	107	884	584	0.733	424	472	1.4	2.5	21.790	C
	3 - A249 onslip (NB)			883				425				
	4 - B2005 - link	581	145	0	1591	0.365	581	883	0.5	0.6	3.564	A
2 - South	1 - A249 onslip (SB)			693				598				
	2 - B2005 - link	863	216	112	1780	0.485	862	580	0.8	0.9	3.922	A
	3 - A249 offslip (SB)	582	146	975	717	0.813	574	0	1.6	3.8	23.802	C
	4 - Swale Way	1515	379	811	520	2.913	520	737	276.3	525.0	2781.231	F
	5 - Grovehurst Road	675	169	648	686	0.984	644	684	4.1	11.9	59.404	F

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1312	328	590	769	1.706	769	0	221.6	357.4	1361.341	F
	2 - Grovehurst Road	428	107	886	584	0.734	428	473	2.5	2.6	22.956	C
	3 - A249 onslip (NB)			882				432				
	4 - B2005 - link	590	148	0	1591	0.371	590	882	0.6	0.6	3.597	A
2 - South	1 - A249 onslip (SB)			705				601				
	2 - B2005 - link	861	215	115	1778	0.485	861	590	0.9	0.9	3.927	A
	3 - A249 offslip (SB)	582	146	977	715	0.814	581	0	3.8	4.1	26.419	D
	4 - Swale Way	1515	379	815	518	2.926	518	743	525.0	774.4	4092.077	F
	5 - Grovehurst Road	675	169	646	687	0.983	660	687	11.9	15.7	87.191	F

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1072	268	558	792	1.354	792	0	357.4	427.4	1742.690	F
	2 - Grovehurst Road	350	87	879	586	0.596	354	470	2.6	1.5	15.776	C
	3 - A249 onslip (NB)			829				404				
	4 - B2005 - link	558	139	0	1591	0.351	558	829	0.6	0.5	3.486	A
2 - South	1 - A249 onslip (SB)			661				603				
	2 - B2005 - link	817	204	103	1785	0.458	817	557	0.9	0.9	3.722	A
	3 - A249 offslip (SB)	476	119	921	759	0.626	485	0	4.1	1.7	13.530	B
	4 - Swale Way	1237	309	732	564	2.195	564	673	774.4	942.7	5229.615	F
	5 - Grovehurst Road	551	138	672	669	0.824	592	624	15.7	5.6	54.995	F

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	897	224	495	836	1.073	836	0	427.4	442.7	1877.994	F
	2 - Grovehurst Road	293	73	866	592	0.495	295	465	1.5	1.0	12.203	B
	3 - A249 onslip (NB)			804				357				
	4 - B2005 - link	494	124	0	1591	0.311	495	804	0.5	0.5	3.285	A
2 - South	1 - A249 onslip (SB)			576				590				
	2 - B2005 - link	800	200	83	1797	0.445	800	494	0.9	0.8	3.611	A
	3 - A249 offslip (SB)	398	100	882	789	0.505	401	0	1.7	1.0	9.346	A
	4 - Swale Way	1036	259	671	598	1.733	598	612	942.7	1052.3	6015.440	F
	5 - Grovehurst Road	461	115	692	654	0.705	474	576	5.6	2.6	21.109	C

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	22.06	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.90	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.75	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.94	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	108.53	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.24	0.73	1.65	2.96	3.54			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	87.42	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.40	0.11	1.15	2.61	3.38			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.00	0.00	0.50	0.50			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.18	0.94	1.43	1.49			N/A	N/A
	3 - A249 offslip (SB)	1.61	0.07	1.00	3.66	5.11			N/A	N/A
	4 - Swale Way	276.32	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.09	0.14	1.93	9.74	13.35			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	221.60	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	2.53	0.03	0.32	4.55	13.23			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.57	0.03	0.25	0.57	0.57			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.93	0.03	0.25	0.93	0.93			N/A	N/A
	3 - A249 offslip (SB)	3.82	0.04	0.37	9.38	20.52			N/A	N/A
	4 - Swale Way	525.04	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	11.94	0.27	6.48	29.44	40.07			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	357.43	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	2.63	0.03	0.29	2.63	10.21			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.59	0.03	0.28	0.78	2.29			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.94	0.03	0.26	0.94	0.94			N/A	N/A
	3 - A249 offslip (SB)	4.07	0.03	0.31	5.23	19.70			N/A	N/A

	4 - Swale Way	774.37	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	15.73	0.17	6.51	42.23	60.38			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	427.42	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.53	0.05	0.50	3.88	5.99			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.54	0.54	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.85	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.74	0.04	0.44	4.64	7.69			N/A	N/A
	4 - Swale Way	942.72	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	5.60	0.05	0.49	16.06	28.08			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	442.70	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.00	0.04	0.39	2.50	4.26			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.81	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.04	0.03	0.34	2.44	5.11			N/A	N/A
	4 - Swale Way	1052.30	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.55	0.03	0.34	5.68	13.64			N/A	N/A

# 2031 + WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	1330.48	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1035.98	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D31	2031 + WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1118	100.000
	2 - Grovehurst Road		ONE HOUR	✓	737	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	620	100.000
	4 - Swale Way		ONE HOUR	✓	777	100.000
	5 - Grovehurst Road		ONE HOUR	✓	775	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	123	0	995
		2 - Grovehurst Road	0	0	38	699
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	159	403	0

## Demand (Veh/hr)

2 - South	From		To				
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	419	0	0	1041	231
		3 - A249 offslip (SB)	1	22	0	381	216
		4 - Swale Way	470	229	0	0	78
5 - Grovehurst Road	289	313	0	173	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From		To			
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	2	0	17
		2 - Grovehurst Road	0	0	5	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	4	6	0		

## Heavy Vehicle Percentages

2 - South	From		To				
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	0	0	0	16	5
		3 - A249 offslip (SB)	0	5	0	9	3
		4 - Swale Way	37	10	0	0	9
5 - Grovehurst Road	0	1	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.41	1039.63	255.2	255.2	F	1026	1539
	2 - Grovehurst Road	1.82	2618.60	337.8	195.8	F	676	1014
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.25	3.14	0.3	1.2	A	390	585
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	5.96	2.0	6.2	A	1206	1808
	3 - A249 offslip (SB)	1.54	1518.75	189.4	187.3	F	569	853
	4 - Swale Way	1.58	1729.00	264.0	158.4	F	713	1069
	5 - Grovehurst Road	1.57	1668.44	255.7	197.4	F	711	1067

## Main Results for each time segment

07:15 - 07:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	842	210	378	885	0.952	803	0	0.0	9.8	34.863	D
	2 - Grovehurst Road	555	139	985	495	1.121	472	195	0.0	20.6	96.862	F
	3 - A249 onslip (NB)			1162				296				
	4 - B2005 - link	379	95	0	1539	0.247	378	1162	0.0	0.3	3.099	A
2 - South	1 - A249 onslip (SB)			500				800				
	2 - B2005 - link	1169	292	118	1820	0.643	1162	382	0.0	1.8	5.418	A
	3 - A249 offslip (SB)	467	117	1280	487	0.959	434	0	0.0	8.2	52.370	F
	4 - Swale Way	585	146	614	552	1.059	520	1100	0.0	16.2	73.431	F
	5 - Grovehurst Road	583	146	772	566	1.031	528	362	0.0	13.9	64.809	F

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1005	251	391	875	1.148	867	0	9.8	44.2	125.915	F
	2 - Grovehurst Road	663	166	1052	450	1.471	450	206	20.6	73.9	395.623	F
	3 - A249 onslip (NB)			1198				304				
	4 - B2005 - link	391	98	0	1539	0.254	391	1198	0.3	0.3	3.136	A
2 - South	1 - A249 onslip (SB)			515				829				
	2 - B2005 - link	1210	303	121	1818	0.666	1210	394	1.8	2.0	5.907	A
	3 - A249 offslip (SB)	557	139	1331	448	1.245	444	0	8.2	36.7	202.288	F
	4 - Swale Way	699	175	636	542	1.290	540	1138	16.2	56.0	256.684	F
	5 - Grovehurst Road	697	174	802	545	1.279	542	374	13.9	52.5	236.572	F

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1231	308	392	875	1.407	874	0	44.2	133.4	374.525	F
	2 - Grovehurst Road	811	203	1059	446	1.820	446	207	73.9	165.3	977.761	F
	3 - A249 onslip (NB)			1201				304				
	4 - B2005 - link	392	98	0	1539	0.255	392	1201	0.3	0.3	3.138	A
2 - South	1 - A249 onslip (SB)			516				831				
	2 - B2005 - link	1214	303	121	1818	0.668	1214	395	2.0	2.0	5.954	A
	3 - A249 offslip (SB)	683	171	1335	445	1.535	444	0	36.7	96.2	552.350	F
	4 - Swale Way	855	214	638	541	1.582	541	1141	56.0	134.7	645.867	F
	5 - Grovehurst Road	853	213	803	544	1.570	543	375	52.5	129.9	615.358	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1231	308	392	875	1.407	874	0	133.4	222.6	739.292	F
	2 - Grovehurst Road	811	203	1059	446	1.821	446	207	165.3	256.8	1715.165	F
	3 - A249 onslip (NB)			1201				304				
	4 - B2005 - link	392	98	0	1539	0.255	392	1201	0.3	0.3	3.138	A
2 - South	1 - A249 onslip (SB)			516				831				
	2 - B2005 - link	1214	303	121	1818	0.668	1214	395	2.0	2.0	5.958	A
	3 - A249 offslip (SB)	683	171	1335	444	1.536	444	0	96.2	155.8	1031.964	F
	4 - Swale Way	855	214	638	541	1.582	541	1142	134.7	213.4	1168.234	F
	5 - Grovehurst Road	853	213	804	543	1.570	543	375	129.9	207.4	1126.454	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1005	251	392	875	1.149	874	0	222.6	255.2	989.280	F
	2 - Grovehurst Road	663	166	1059	446	1.487	446	207	256.8	311.0	2296.881	F
	3 - A249 onslip (NB)			1201				304				
	4 - B2005 - link	392	98	0	1539	0.255	392	1201	0.3	0.3	3.138	A
2 - South	1 - A249 onslip (SB)			516				831				
	2 - B2005 - link	1214	303	121	1818	0.668	1214	395	2.0	2.0	5.958	A
	3 - A249 offslip (SB)	557	139	1335	444	1.254	444	0	155.8	184.0	1385.574	F
	4 - Swale Way	699	175	638	541	1.292	541	1142	213.4	252.9	1561.051	F
	5 - Grovehurst Road	697	174	804	543	1.282	543	375	207.4	245.7	1509.069	F

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	842	210	392	875	0.962	871	0	255.2	247.9	1039.626	F
	2 - Grovehurst Road	555	139	1057	448	1.240	448	207	311.0	337.8	2618.604	F
	3 - A249 onslip (NB)			1200				304				
	4 - B2005 - link	392	98	0	1539	0.255	392	1200	0.3	0.3	3.139	A
2 - South	1 - A249 onslip (SB)			516				831				
	2 - B2005 - link	1212	303	121	1818	0.667	1212	395	2.0	2.0	5.944	A
	3 - A249 offslip (SB)	467	117	1334	446	1.048	445	0	184.0	189.4	1518.750	F
	4 - Swale Way	585	146	638	541	1.082	541	1141	252.9	264.0	1728.999	F
	5 - Grovehurst Road	583	146	803	544	1.073	544	375	245.7	255.7	1668.439	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	9.79	0.03	0.27	9.79	9.79			N/A	N/A
	2 - Grovehurst Road	20.64	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.77	1.05	1.50	1.90	1.95			N/A	N/A
	3 - A249 offslip (SB)	8.20	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	16.22	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	13.90	>199	>199	>199	>199			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	44.24	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	73.89	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.96	0.08	1.21	4.46	6.18			N/A	N/A
	3 - A249 offslip (SB)	36.66	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	55.95	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	52.47	>199	>199	>199	>199			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	133.44	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	165.32	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.03	0.27	1.99	1.99			N/A	N/A
	3 - A249 offslip (SB)	96.23	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	134.70	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	129.94	>199	>199	>199	>199			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	222.56	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	256.78	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.03	0.31	1.18	1.22			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.03	0.26	1.99	1.99			N/A	N/A
	3 - A249 offslip (SB)	155.78	>199	>199	>199	>199			N/A	N/A

	<b>4 - Swale Way</b>	213.43	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	207.40	>199	>199	>199	>199			N/A	N/A

**08:15 - 08:30**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	255.21	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	311.01	>199	>199	>199	>199			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.34	0.00	0.00	0.34	0.34			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	2.00	0.11	1.40	4.15	5.59			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	184.02	>199	>199	>199	>199			N/A	N/A
	<b>4 - Swale Way</b>	252.90	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	245.72	>199	>199	>199	>199			N/A	N/A

**08:30 - 08:45**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	247.86	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	337.83	>199	>199	>199	>199			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.34	0.00	0.00	0.34	0.34			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	2.00	0.22	1.16	3.60	4.54			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	189.38	>199	>199	>199	>199			N/A	N/A
	<b>4 - Swale Way</b>	263.99	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	255.70	>199	>199	>199	>199			N/A	N/A



# 2031 + WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	1130.07	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	2589.25	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D32	2031 + WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1200	100.000
	2 - Grovehurst Road		ONE HOUR	✓	389	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	529	100.000
	4 - Swale Way		ONE HOUR	✓	1395	100.000
	5 - Grovehurst Road		ONE HOUR	✓	613	100.000

## Origin-Destination Data

### Demand (Veh/hr)

	To			
	1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	430	0	770
		2 - Grovehurst Road	0	0	34	355
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	277	561	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	187	0	0	531	402
		3 - A249 offslip (SB)	1	39	0	202	287
		4 - Swale Way	798	436	0	0	161
5 - Grovehurst Road	150	356	0	107	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	0	0	20
		2 - Grovehurst Road	0	0	0	0
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	0	3	0		

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	1	0	0	28	1
		3 - A249 offslip (SB)	0	8	0	8	3
		4 - Swale Way	18	3	0	0	3
5 - Grovehurst Road	0	1	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.72	1944.49	457.6	177.3	F	1101	1652
	2 - Grovehurst Road	0.74	23.25	2.7	13.4	C	357	535
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.59	0.6	2.3	A	537	805
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.49	3.97	0.9	1.5	A	824	1237
	3 - A249 offslip (SB)	0.82	27.07	4.2	20.9	D	485	728
	4 - Swale Way	2.98	6201.40	1081.3	179.2	F	1280	1920
	5 - Grovehurst Road	0.99	88.44	16.0	60.6	F	562	844

## Main Results for each time segment

16:15 - 16:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	903	226	478	843	1.072	809	0	0.0	23.7	66.073	F
	2 - Grovehurst Road	293	73	839	607	0.483	289	448	0.0	0.9	11.216	B
	3 - A249 onslip (NB)			783				346				
	4 - B2005 - link	480	120	0	1591	0.302	478	783	0.0	0.4	3.233	A
2 - South	1 - A249 onslip (SB)			558				584				
	2 - B2005 - link	779	195	79	1790	0.435	776	479	0.0	0.8	3.541	A
	3 - A249 offslip (SB)	398	100	855	808	0.493	394	0	0.0	1.0	8.636	A
	4 - Swale Way	1050	263	652	605	1.737	599	598	0.0	112.7	355.896	F
	5 - Grovehurst Road	461	115	689	653	0.706	452	562	0.0	2.3	17.224	C

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1079	270	527	809	1.334	807	0	23.7	91.6	271.174	F
	2 - Grovehurst Road	350	87	871	587	0.595	348	464	0.9	1.4	14.885	B
	3 - A249 onslip (NB)			835				383				
	4 - B2005 - link	527	132	0	1591	0.332	527	835	0.4	0.5	3.385	A
2 - South	1 - A249 onslip (SB)			622				594				
	2 - B2005 - link	825	206	95	1781	0.463	825	527	0.8	0.9	3.762	A
	3 - A249 offslip (SB)	476	119	920	757	0.629	473	0	1.0	1.6	12.567	B
	4 - Swale Way	1254	314	726	564	2.224	564	666	112.7	285.3	1352.490	F
	5 - Grovehurst Road	551	138	672	666	0.827	544	618	2.3	4.1	27.694	D

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1321	330	578	773	1.710	773	0	91.6	228.7	756.111	F
	2 - Grovehurst Road	428	107	883	582	0.735	424	468	1.4	2.6	22.040	C
	3 - A249 onslip (NB)			883				424				
	4 - B2005 - link	578	145	0	1591	0.364	578	883	0.5	0.6	3.555	A
2 - South	1 - A249 onslip (SB)			690				599				
	2 - B2005 - link	863	216	112	1771	0.487	862	578	0.9	0.9	3.960	A
	3 - A249 offslip (SB)	582	146	975	713	0.817	573	0	1.6	3.9	24.286	C
	4 - Swale Way	1536	384	808	519	2.961	519	740	285.3	539.6	2870.350	F
	5 - Grovehurst Road	675	169	646	685	0.986	643	680	4.1	12.1	60.017	F

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1321	330	587	766	1.724	766	0	228.7	367.4	1406.458	F
	2 - Grovehurst Road	428	107	885	582	0.736	428	469	2.6	2.7	23.247	C
	3 - A249 onslip (NB)			882				431				
	4 - B2005 - link	587	147	0	1591	0.369	587	882	0.6	0.6	3.588	A
2 - South	1 - A249 onslip (SB)			702				602				
	2 - B2005 - link	862	215	115	1769	0.487	862	587	0.9	0.9	3.965	A
	3 - A249 offslip (SB)	582	146	977	712	0.818	581	0	3.9	4.2	27.066	D
	4 - Swale Way	1536	384	812	516	2.975	516	746	539.6	794.5	4210.849	F
	5 - Grovehurst Road	675	169	644	686	0.984	659	684	12.1	16.0	88.441	F

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1079	270	556	788	1.368	788	0	367.4	440.0	1798.162	F
	2 - Grovehurst Road	350	87	878	584	0.598	354	466	2.7	1.5	15.928	C
	3 - A249 onslip (NB)			829				403				
	4 - B2005 - link	556	139	0	1591	0.349	556	829	0.6	0.5	3.481	A
2 - South	1 - A249 onslip (SB)			659				604				
	2 - B2005 - link	817	204	103	1776	0.460	818	555	0.9	0.9	3.760	A
	3 - A249 offslip (SB)	476	119	921	756	0.629	485	0	4.2	1.8	13.742	B
	4 - Swale Way	1254	314	730	562	2.233	562	676	794.5	967.6	5385.238	F
	5 - Grovehurst Road	551	138	670	668	0.826	592	622	16.0	5.7	56.214	F

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	903	226	492	833	1.084	833	0	440.0	457.6	1944.492	F
	2 - Grovehurst Road	293	73	864	590	0.496	295	461	1.5	1.0	12.292	B
	3 - A249 onslip (NB)			804				355				
	4 - B2005 - link	492	123	0	1591	0.309	492	804	0.5	0.4	3.280	A
2 - South	1 - A249 onslip (SB)			574				591				
	2 - B2005 - link	800	200	83	1788	0.448	800	491	0.9	0.8	3.649	A
	3 - A249 offslip (SB)	398	100	883	785	0.507	401	0	1.8	1.1	9.445	A
	4 - Swale Way	1050	263	669	595	1.764	595	615	967.6	1081.3	6201.398	F
	5 - Grovehurst Road	461	115	691	653	0.707	474	574	5.7	2.6	21.296	C

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	23.69	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.91	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.77	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.95	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	112.74	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.25	0.73	1.65	2.97	3.58			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	91.56	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.42	0.11	1.15	2.64	3.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.49	0.00	0.00	0.49	0.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.86	0.17	0.94	1.02	1.02			N/A	N/A
	3 - A249 offslip (SB)	1.63	0.07	1.01	3.71	5.22			N/A	N/A
	4 - Swale Way	285.29	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.12	0.14	1.95	9.81	13.44			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	228.67	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	2.56	0.03	0.32	4.70	13.44			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.57	0.03	0.25	0.57	0.57			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.94	0.03	0.25	0.94	0.94			N/A	N/A
	3 - A249 offslip (SB)	3.90	0.04	0.37	9.76	20.95			N/A	N/A
	4 - Swale Way	539.59	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	12.08	0.29	6.66	29.67	40.29			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	367.42	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	2.67	0.03	0.29	2.67	10.47			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.58	0.03	0.28	0.81	2.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.95	0.03	0.26	0.95	0.95			N/A	N/A
	3 - A249 offslip (SB)	4.16	0.03	0.31	5.65	20.44			N/A	N/A

	<b>4 - Swale Way</b>	794.51	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	15.98	0.18	6.81	42.62	60.62			N/A	N/A

**17:15 - 17:30**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	440.02	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	1.55	0.05	0.49	3.92	6.10			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.54	0.54	1.00	1.40	1.45			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	0.86	0.55	1.00	1.40	1.45			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	1.76	0.04	0.44	4.71	7.86			N/A	N/A
	<b>4 - Swale Way</b>	967.63	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	5.67	0.05	0.50	16.28	28.39			N/A	N/A

**17:30 - 17:45**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	457.59	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	1.01	0.04	0.39	2.53	4.33			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.45	0.00	0.00	0.45	0.45			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	0.82	0.55	1.00	1.40	1.45			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	1.05	0.03	0.34	2.44	5.20			N/A	N/A
	<b>4 - Swale Way</b>	1081.35	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	2.57	0.03	0.34	5.71	13.73			N/A	N/A

# 2031 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	1334.78	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	1039.24	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D33	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1120	100.000
	2 - Grovehurst Road		ONE HOUR	✓	737	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	620	100.000
	4 - Swale Way		ONE HOUR	✓	779	100.000
	5 - Grovehurst Road		ONE HOUR	✓	775	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	123	0	997
		2 - Grovehurst Road	0	0	38	699
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	159	403	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	419	0	0	1044	231
		3 - A249 offslip (SB)	1	22	0	381	216
		4 - Swale Way	472	229	0	0	78
5 - Grovehurst Road	289	313	0	173	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	2	0	17
		2 - Grovehurst Road	0	0	5	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	4	6	0		

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	0	0	0	17	5
		3 - A249 offslip (SB)	0	5	0	9	3
		4 - Swale Way	38	10	0	0	1
5 - Grovehurst Road	0	1	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.41	1046.20	256.8	256.8	F	1028	1542
	2 - Grovehurst Road	1.82	2621.17	338.1	195.8	F	676	1014
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.25	3.14	0.3	1.2	A	389	584
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.67	5.99	2.0	6.2	A	1199	1799
	3 - A249 offslip (SB)	1.54	1519.28	189.4	187.3	F	569	853
	4 - Swale Way	1.58	1718.64	263.4	158.6	F	715	1072
	5 - Grovehurst Road	1.58	1696.85	259.1	197.4	F	711	1067

## Main Results for each time segment

07:15 - 07:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	843	211	378	885	0.953	804	0	0.0	9.9	35.107	E
	2 - Grovehurst Road	555	139	986	495	1.122	472	195	0.0	20.8	97.350	F
	3 - A249 onslip (NB)			1163				295				
	4 - B2005 - link	379	95	0	1539	0.246	378	1163	0.0	0.3	3.098	A
2 - South	1 - A249 onslip (SB)			499				799				
	2 - B2005 - link	1164	291	118	1810	0.643	1156	382	0.0	1.8	5.450	A
	3 - A249 offslip (SB)	467	117	1274	487	0.959	434	0	0.0	8.2	52.530	F
	4 - Swale Way	586	147	611	554	1.058	522	1097	0.0	16.1	72.865	F
	5 - Grovehurst Road	583	146	772	564	1.035	527	361	0.0	14.2	66.042	F

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1007	252	391	876	1.150	868	0	9.9	44.7	126.901	F
	2 - Grovehurst Road	663	166	1053	450	1.472	449	206	20.8	74.1	396.819	F
	3 - A249 onslip (NB)			1199				303				
	4 - B2005 - link	391	98	0	1539	0.254	391	1199	0.3	0.3	3.135	A
2 - South	1 - A249 onslip (SB)			514				828				
	2 - B2005 - link	1204	301	121	1808	0.666	1203	393	1.8	2.0	5.944	A
	3 - A249 offslip (SB)	557	139	1324	448	1.245	444	0	8.2	36.7	202.601	F
	4 - Swale Way	700	175	633	544	1.288	542	1135	16.1	55.7	254.646	F
	5 - Grovehurst Road	697	174	802	542	1.285	540	373	14.2	53.4	241.610	F

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1233	308	391	875	1.409	875	0	44.7	134.3	376.891	F
	2 - Grovehurst Road	811	203	1059	446	1.820	446	207	74.1	165.5	979.334	F
	3 - A249 onslip (NB)			1201				304				
	4 - B2005 - link	391	98	0	1539	0.254	391	1201	0.3	0.3	3.136	A
2 - South	1 - A249 onslip (SB)			515				830				
	2 - B2005 - link	1207	302	121	1808	0.668	1207	394	2.0	2.0	5.990	A
	3 - A249 offslip (SB)	683	171	1328	445	1.535	444	0	36.7	96.3	552.730	F
	4 - Swale Way	858	214	635	543	1.580	543	1138	55.7	134.5	641.716	F
	5 - Grovehurst Road	853	213	804	541	1.577	541	374	53.4	131.5	626.312	F

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1233	308	391	875	1.409	875	0	134.3	223.8	743.248	F
	2 - Grovehurst Road	811	203	1060	446	1.821	445	207	165.5	257.0	1717.094	F
	3 - A249 onslip (NB)			1201				304				
	4 - B2005 - link	391	98	0	1539	0.254	391	1201	0.3	0.3	3.136	A
2 - South	1 - A249 onslip (SB)			515				830				
	2 - B2005 - link	1207	302	121	1808	0.668	1207	394	2.0	2.0	5.994	A
	3 - A249 offslip (SB)	683	171	1328	444	1.536	444	0	96.3	155.8	1032.394	F
	4 - Swale Way	858	214	635	543	1.580	543	1138	134.5	213.2	1161.729	F
	5 - Grovehurst Road	853	213	804	541	1.577	541	374	131.5	209.6	1143.989	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1007	252	391	875	1.151	875	0	223.8	256.8	994.674	F
	2 - Grovehurst Road	663	166	1060	446	1.487	446	207	257.0	311.2	2299.152	F
	3 - A249 onslip (NB)			1201				304				
	4 - B2005 - link	391	98	0	1539	0.254	391	1201	0.3	0.3	3.136	A
2 - South	1 - A249 onslip (SB)			515				830				
	2 - B2005 - link	1207	302	121	1808	0.668	1207	394	2.0	2.0	5.994	A
	3 - A249 offslip (SB)	557	139	1328	444	1.254	444	0	155.8	184.1	1386.050	F
	4 - Swale Way	700	175	635	543	1.290	543	1138	213.2	252.5	1552.438	F
	5 - Grovehurst Road	697	174	804	541	1.288	541	374	209.6	248.5	1532.563	F

## 08:30 - 08:45



Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	843	211	392	875	0.964	872	0	256.8	249.7	1046.203	F
	2 - Grovehurst Road	555	139	1057	448	1.240	447	206	311.2	338.1	2621.174	F
	3 - A249 onslip (NB)			1200				304				
	4 - B2005 - link	392	98	0	1539	0.254	392	1200	0.3	0.3	3.137	A
2 - South	1 - A249 onslip (SB)			515				830				
	2 - B2005 - link	1206	302	121	1808	0.667	1206	394	2.0	2.0	5.980	A
	3 - A249 offslip (SB)	467	117	1327	446	1.048	445	0	184.1	189.4	1519.276	F
	4 - Swale Way	586	147	634	543	1.080	543	1138	252.5	263.4	1718.641	F
	5 - Grovehurst Road	583	146	803	541	1.078	541	374	248.5	259.1	1696.846	F

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	9.90	0.03	0.27	9.90	9.90			N/A	N/A
	2 - Grovehurst Road	20.76	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.77	1.05	1.50	1.90	1.95			N/A	N/A
	3 - A249 offslip (SB)	8.23	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	16.13	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	14.22	>199	>199	>199	>199			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	44.66	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	74.05	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.96	0.08	1.22	4.46	6.18			N/A	N/A
	3 - A249 offslip (SB)	36.70	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	55.74	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	53.38	>199	>199	>199	>199			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	134.29	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	165.50	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.99	0.03	0.27	1.99	1.99			N/A	N/A
	3 - A249 offslip (SB)	96.27	>199	>199	>199	>199			N/A	N/A
	4 - Swale Way	134.47	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	131.48	>199	>199	>199	>199			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	223.84	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	256.99	>199	>199	>199	>199			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.03	0.31	1.17	1.20			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.00	0.03	0.26	2.00	2.00			N/A	N/A
	3 - A249 offslip (SB)	155.83	>199	>199	>199	>199			N/A	N/A

	<b>4 - Swale Way</b>	213.18	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	209.57	>199	>199	>199	>199			N/A	N/A

**08:15 - 08:30**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	256.82	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	311.24	>199	>199	>199	>199			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.34	0.00	0.00	0.34	0.34			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	2.00	0.11	1.40	4.17	5.62			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	184.08	>199	>199	>199	>199			N/A	N/A
	<b>4 - Swale Way</b>	252.53	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	248.52	>199	>199	>199	>199			N/A	N/A

**08:30 - 08:45**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	249.72	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	338.08	>199	>199	>199	>199			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.34	0.00	0.00	0.34	0.34			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	2.00	0.22	1.16	3.61	4.56			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	189.44	>199	>199	>199	>199			N/A	N/A
	<b>4 - Swale Way</b>	263.43	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	259.12	>199	>199	>199	>199			N/A	N/A

# 2031 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	1141.36	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	2591.04	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D34	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	1203	100.000
	2 - Grovehurst Road		ONE HOUR	✓	389	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	529	100.000
	4 - Swale Way		ONE HOUR	✓	1398	100.000
	5 - Grovehurst Road		ONE HOUR	✓	613	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip	2 - Grovehurst	3 - A249 onslip	4 - B2005 -

1 - North	From		(NB)	Road	(NB)	link
		1 - A249 offslip (NB)	0	430	0	773
		2 - Grovehurst Road	0	0	34	355
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	277	561	0

## Demand (Veh/hr)

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	187	0	0	534	402
		3 - A249 offslip (SB)	1	39	0	202	287
		4 - Swale Way	801	436	0	0	161
5 - Grovehurst Road	150	356	0	107	0		

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North	From	To				
			1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
		1 - A249 offslip (NB)	0	0	0	20
		2 - Grovehurst Road	0	0	0	0
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
4 - B2005 - link	0	0	3	0		

## Heavy Vehicle Percentages

2 - South	From	To					
			1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
		2 - B2005 - link	1	0	0	29	1
		3 - A249 offslip (SB)	0	8	0	8	3
		4 - Swale Way	18	3	0	0	3
5 - Grovehurst Road	0	1	0	4	0		

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.73	1961.86	461.8	177.2	F	1104	1656
	2 - Grovehurst Road	0.74	23.31	2.7	13.5	C	357	535
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.37	3.59	0.6	2.3	A	537	805
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.49	3.99	0.9	1.5	A	821	1232
	3 - A249 offslip (SB)	0.82	27.16	4.2	21.0	D	485	728
	4 - Swale Way	2.97	6198.73	1083.4	179.2	F	1283	1924
	5 - Grovehurst Road	0.99	88.97	16.1	60.8	F	562	844

## Main Results for each time segment

16:15 - 16:30

Total	Junction	Circulating	Capacity	Throughput	Throughput	Start	End	Delay

Junction	Arm	Demand (Veh/hr)	Arrivals (Veh)	flow (Veh/hr)	(Veh/hr)	RFC	(Veh/hr)	(exit side) (Veh/hr)	queue (Veh)	queue (Veh)	(s)	LOS
1 - North	1 - A249 offslip (NB)	906	226	478	843	1.075	809	0	0.0	24.1	66.965	F
	2 - Grovehurst Road	293	73	840	606	0.483	289	447	0.0	0.9	11.240	B
	3 - A249 onslip (NB)			784				345				
	4 - B2005 - link	480	120	0	1591	0.302	478	784	0.0	0.4	3.233	A
2 - South	1 - A249 onslip (SB)			558				584				
	2 - B2005 - link	777	194	79	1782	0.436	774	479	0.0	0.8	3.561	A
	3 - A249 offslip (SB)	398	100	853	807	0.494	394	0	0.0	1.0	8.654	A
	4 - Swale Way	1052	263	650	606	1.737	600	597	0.0	113.0	355.917	F
	5 - Grovehurst Road	461	115	690	653	0.707	452	560	0.0	2.3	17.255	C

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1081	270	527	808	1.338	807	0	24.1	92.7	274.755	F
	2 - Grovehurst Road	350	87	872	587	0.596	348	463	0.9	1.4	14.925	B
	3 - A249 onslip (NB)			836				383				
	4 - B2005 - link	527	132	0	1591	0.332	527	836	0.4	0.5	3.385	A
2 - South	1 - A249 onslip (SB)			622				595				
	2 - B2005 - link	822	206	95	1773	0.464	822	527	0.8	0.9	3.782	A
	3 - A249 offslip (SB)	476	119	917	756	0.629	473	0	1.0	1.6	12.591	B
	4 - Swale Way	1257	314	723	565	2.223	565	666	113.0	285.9	1351.572	F
	5 - Grovehurst Road	551	138	673	666	0.828	544	616	2.3	4.1	27.779	D

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1325	331	578	773	1.714	773	0	92.7	230.7	763.569	F
	2 - Grovehurst Road	428	107	883	582	0.736	424	467	1.4	2.6	22.096	C
	3 - A249 onslip (NB)			883				424				
	4 - B2005 - link	578	145	0	1591	0.364	578	883	0.5	0.6	3.555	A
2 - South	1 - A249 onslip (SB)			690				600				
	2 - B2005 - link	859	215	112	1763	0.488	859	578	0.9	0.9	3.981	A
	3 - A249 offslip (SB)	582	146	971	713	0.817	573	0	1.6	3.9	24.354	C
	4 - Swale Way	1539	385	805	520	2.959	520	740	285.9	540.6	2867.525	F
	5 - Grovehurst Road	675	169	647	684	0.987	643	679	4.1	12.1	60.272	F

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1325	331	587	766	1.729	766	0	230.7	370.3	1418.125	F
	2 - Grovehurst Road	428	107	885	581	0.737	428	468	2.6	2.7	23.310	C
	3 - A249 onslip (NB)			883				431				
	4 - B2005 - link	587	147	0	1591	0.369	587	883	0.6	0.6	3.588	A
2 - South	1 - A249 onslip (SB)			702				602				
	2 - B2005 - link	858	215	115	1761	0.487	858	587	0.9	0.9	3.986	A
	3 - A249 offslip (SB)	582	146	973	711	0.819	581	0	3.9	4.2	27.160	D
	4 - Swale Way	1539	385	810	518	2.973	518	745	540.6	796.0	4208.472	F
	5 - Grovehurst Road	675	169	645	685	0.985	659	682	12.1	16.1	88.972	F

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1081	270	556	788	1.372	788	0	370.3	443.6	1812.666	F
	2 - Grovehurst Road	350	87	879	584	0.599	354	466	2.7	1.6	15.963	C
	3 - A249 onslip (NB)			830				403				
	4 - B2005 - link	556	139	0	1591	0.350	556	830	0.6	0.5	3.482	A
2 - South	1 - A249 onslip (SB)			659				604				
	2 - B2005 - link	814	204	103	1768	0.461	815	556	0.9	0.9	3.777	A
	3 - A249 offslip (SB)	476	119	918	755	0.630	485	0	4.2	1.8	13.768	B
	4 - Swale Way	1257	314	727	563	2.232	563	676	796.0	969.4	5382.715	F
	5 - Grovehurst Road	551	138	671	667	0.826	593	620	16.1	5.7	56.737	F

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	906	226	492	833	1.087	833	0	443.6	461.8	1961.859	F
	2 - Grovehurst Road	293	73	865	590	0.497	295	460	1.6	1.0	12.313	B
	3 - A249 onslip (NB)			804				355				
	4 - B2005 - link	492	123	0	1591	0.309	492	804	0.5	0.4	3.277	A
2 - South	1 - A249 onslip (SB)			574				591				
	2 - B2005 - link	797	199	83	1780	0.448	798	491	0.9	0.8	3.668	A
	3 - A249 offslip (SB)	398	100	880	785	0.508	401	0	1.8	1.1	9.459	A
	4 - Swale Way	1052	263	666	597	1.764	597	615	969.4	1083.4	6198.729	F
	5 - Grovehurst Road	461	115	691	653	0.707	474	572	5.7	2.6	21.373	C

### Queue Variation Results for each time segment

#### 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	24.13	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	0.91	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.77	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.96	0.55	1.00	1.40	1.45			N/A	N/A
	4 - Swale Way	113.01	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.26	0.73	1.66	2.98	3.59			N/A	N/A

#### 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	92.70	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	1.42	0.11	1.16	2.65	3.46			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.49	0.00	0.00	0.49	0.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.86	0.17	0.94	1.03	1.03			N/A	N/A
	3 - A249 offslip (SB)	1.64	0.07	1.01	3.72	5.23			N/A	N/A
	4 - Swale Way	285.88	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	4.14	0.14	1.96	9.83	13.47			N/A	N/A

#### 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	230.67	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	2.56	0.03	0.32	4.74	13.49			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.57	0.03	0.25	0.57	0.57			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.94	0.03	0.25	0.94	0.94			N/A	N/A
	3 - A249 offslip (SB)	3.91	0.04	0.37	9.81	21.01			N/A	N/A
	4 - Swale Way	540.62	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	12.15	0.30	6.73	29.76	40.37			N/A	N/A

#### 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	370.28	>199	>199	>199	>199			N/A	N/A
	2 - Grovehurst Road	2.67	0.03	0.29	2.67	10.52			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.58	0.03	0.28	0.81	2.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.95	0.03	0.26	0.95	0.95			N/A	N/A
	3 - A249 offslip (SB)	4.18	0.03	0.31	5.72	20.55			N/A	N/A

	<b>4 - Swale Way</b>	795.99	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	16.08	0.18	6.94	42.82	60.81			N/A	N/A

**17:15 - 17:30**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	443.63	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	1.55	0.05	0.49	3.93	6.12			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.54	0.54	1.00	1.40	1.45			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	0.86	0.55	1.00	1.40	1.45			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	1.76	0.04	0.44	4.72	7.89			N/A	N/A
	<b>4 - Swale Way</b>	969.43	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	5.70	0.05	0.50	16.38	28.52			N/A	N/A

**17:30 - 17:45**

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>1 - North</b>	<b>1 - A249 offslip (NB)</b>	461.82	>199	>199	>199	>199			N/A	N/A
	<b>2 - Grovehurst Road</b>	1.01	0.04	0.39	2.54	4.35			N/A	N/A
	<b>3 - A249 onslip (NB)</b>									
	<b>4 - B2005 - link</b>	0.45	0.00	0.00	0.45	0.45			N/A	N/A
<b>2 - South</b>	<b>1 - A249 onslip (SB)</b>									
	<b>2 - B2005 - link</b>	0.82	0.55	1.00	1.40	1.45			N/A	N/A
	<b>3 - A249 offslip (SB)</b>	1.05	0.03	0.34	2.44	5.21			N/A	N/A
	<b>4 - Swale Way</b>	1083.37	>199	>199	>199	>199			N/A	N/A
	<b>5 - Grovehurst Road</b>	2.57	0.03	0.34	5.73	13.77			N/A	N/A

# Junctions 9

## ARCADY 9 - Roundabout Module

Version: 9.0.2.5947  
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**Filename:** Dumbbell\_Mitigation\_Sensitivity\_FULLLK3.j9

**Path:** P:\JNY9290 - Kemsley K5\Transport\Arcady\WKN DCO\North and South Dumbell Roundabouts

**Report generation date:** 08/07/2019 17:28:30

- »2017, AM
- »2017, PM
- »2024, AM
- »2024, PM
- »2024 + Cumulative Development, AM
- »2024 + Cumulative Development, PM
- »2024 + K3 Operational, AM
- »2024 + K3 Operational, PM
- »2024 + K3 and WKN Operational, AM
- »2024 + K3 and WKN Operational, PM
- »2024 + K3 Operational + Cumulative Development, AM
- »2024 + K3 Operational + Cumulative Development, PM
- »2024 + K3 and WKN Operational + Cumulative Development, AM
- »2024 + K3 and WKN Operational + Cumulative Development, PM
- »2031, AM
- »2031, PM
- »2031 + Cumulative Development, AM
- »2031 + Cumulative Development, PM
- »2031 + K3 Operational, AM
- »2031 + K3 Operational, PM
- »2031 + K3 and WKN Operational, AM
- »2031 + K3 and WKN Operational, PM
- »2031 + K3 Operational + Cumulative Development, AM
- »2031 + K3 Operational + Cumulative Development, PM
- »2031 + K3 and WKN Operational + Cumulative Development, AM
- »2031 + K3 and WKN Operational + Cumulative Development, PM

### Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
<b>2017</b>						
1 - North - 1 - A249 offslip (NB)	1.7	8.43	0.63	4.7	21.72	0.84
1 - North - 2 - Grovehurst Road	0.9	7.71	0.48	0.4	5.88	0.29
1 - North - 4 - B2005 - link	0.4	3.00	0.29	0.8	3.67	0.43
2 - South - 2 - B2005 - link	1.3	4.38	0.57	0.8	3.37	0.44
2 - South - 3 - A249 offslip (SB)	2.2	14.29	0.69	0.8	6.19	0.45
2 - South - 4 - Swale Way	1.5	8.84	0.60	34.1	106.63	1.04
2 - South - 5 - Grovehurst Road	1.7	9.94	0.64	2.3	14.92	0.71
<b>2024</b>						
1 - North - 1 - A249 offslip (NB)	4.7	19.20	0.83	9.7	41.91	0.93
1 - North - 2 - Grovehurst Road	2.0	15.10	0.67	0.5	6.69	0.32
1 - North - 4 - B2005 - link	0.5	3.12	0.31	0.7	3.63	0.43
2 - South - 2 - B2005 - link	2.5	6.83	0.72	1.0	3.84	0.49
2 - South - 3 - A249 offslip (SB)	44.4	226.40	1.15	1.0	7.65	0.51
2 - South - 4 - Swale Way	2.9	14.51	0.75	194.5	617.22	1.33
2 - South - 5 - Grovehurst Road	3.4	18.91	0.78	2.6	16.36	0.73



2024 + Cumulative Development						
1 - North - 1 - A249 offslip (NB)	7.4	29.29	0.90	20.7	77.50	1.00
1 - North - 2 - Grovehurst Road	2.7	20.90	0.74	0.5	7.51	0.35
1 - North - 4 - B2005 - link	0.5	3.23	0.33	0.7	3.61	0.42
2 - South - 2 - B2005 - link	2.8	7.44	0.74	1.1	4.09	0.53
2 - South - 3 - A249 offslip (SB)	71.6	359.35	1.29	1.4	9.48	0.58
2 - South - 4 - Swale Way	3.4	17.04	0.78	264.5	854.98	1.44
2 - South - 5 - Grovehurst Road	11.0	52.02	0.94	3.2	17.85	0.77
2024 + K3 Operational						
1 - North - 1 - A249 offslip (NB)	6.0	23.91	0.87	12.5	52.38	0.95
1 - North - 2 - Grovehurst Road	2.3	17.33	0.70	0.5	6.94	0.33
1 - North - 4 - B2005 - link	0.5	3.15	0.31	0.7	3.62	0.42
2 - South - 2 - B2005 - link	2.7	7.39	0.74	1.0	3.99	0.51
2 - South - 3 - A249 offslip (SB)	58.5	299.63	1.23	1.1	8.08	0.52
2 - South - 4 - Swale Way	3.4	16.38	0.78	233.1	732.25	1.38
2 - South - 5 - Grovehurst Road	3.9	21.80	0.81	2.6	16.62	0.73
2024 + K3 and WKN Operational						
1 - North - 1 - A249 offslip (NB)	6.8	27.05	0.89	14.5	59.50	0.97
1 - North - 2 - Grovehurst Road	2.4	18.61	0.72	0.5	7.06	0.33
1 - North - 4 - B2005 - link	0.5	3.15	0.31	0.7	3.58	0.42
2 - South - 2 - B2005 - link	2.9	7.74	0.75	1.1	4.11	0.52
2 - South - 3 - A249 offslip (SB)	65.8	339.52	1.27	1.1	8.36	0.53
2 - South - 4 - Swale Way	3.7	17.79	0.79	257.9	804.56	1.41
2 - South - 5 - Grovehurst Road	4.3	24.03	0.82	2.7	16.85	0.74
2024 + K3 Operational + Cumulative Development						
1 - North - 1 - A249 offslip (NB)	10.0	38.67	0.93	28.0	99.19	1.02
1 - North - 2 - Grovehurst Road	3.2	24.54	0.78	0.5	7.70	0.36
1 - North - 4 - B2005 - link	0.5	3.23	0.34	0.7	3.59	0.42
2 - South - 2 - B2005 - link	3.1	8.03	0.76	1.1	4.24	0.54
2 - South - 3 - A249 offslip (SB)	84.8	436.71	1.36	1.4	9.95	0.60
2 - South - 4 - Swale Way	3.9	19.12	0.80	303.7	1016.81	1.49
2 - South - 5 - Grovehurst Road	14.2	65.49	0.97	3.2	18.33	0.77
2024 + K3 and WKN Operational + Cumulative Development						
1 - North - 1 - A249 offslip (NB)	11.9	45.25	0.95	32.7	112.40	1.04
1 - North - 2 - Grovehurst Road	3.5	26.73	0.79	0.6	7.79	0.36
1 - North - 4 - B2005 - link	0.5	3.23	0.33	0.7	3.57	0.42
2 - South - 2 - B2005 - link	3.2	8.40	0.77	1.2	4.31	0.54
2 - South - 3 - A249 offslip (SB)	91.5	480.33	1.41	1.5	10.21	0.60
2 - South - 4 - Swale Way	4.4	21.13	0.82	330.6	1102.57	1.52
2 - South - 5 - Grovehurst Road	17.4	78.32	0.99	3.3	18.61	0.78
2031						
1 - North - 1 - A249 offslip (NB)	4.7	19.20	0.83	9.7	41.91	0.93
1 - North - 2 - Grovehurst Road	2.0	15.10	0.67	0.5	6.69	0.32
1 - North - 4 - B2005 - link	0.5	3.12	0.31	0.7	3.63	0.43
2 - South - 2 - B2005 - link	2.5	6.83	0.72	1.0	3.84	0.49
2 - South - 3 - A249 offslip (SB)	44.4	226.40	1.15	1.0	7.65	0.51
2 - South - 4 - Swale Way	2.9	14.51	0.75	194.5	617.22	1.33
2 - South - 5 - Grovehurst Road	3.4	18.91	0.78	2.6	16.36	0.73
2031 + Cumulative Development						
1 - North - 1 - A249 offslip (NB)	40.9	115.95	1.05	153.1	516.87	1.27
1 - North - 2 - Grovehurst Road	95.5	491.95	1.28	1.0	8.49	0.50
1 - North - 4 - B2005 - link	0.4	3.09	0.31	0.7	3.55	0.41
2 - South - 2 - B2005 - link	4.9	11.30	0.83	1.2	4.14	0.54
2 - South - 3 - A249 offslip (SB)	232.1	1961.28	1.82	1.9	11.91	0.66
2 - South - 4 - Swale Way	13.9	63.51	0.96	466.5	1709.09	1.70
2 - South - 5 - Grovehurst Road	114.8	553.51	1.35	4.5	25.14	0.83
2031 + K3 Operational						
1 - North - 1 - A249 offslip (NB)	6.0	23.91	0.87	12.5	52.38	0.95
1 - North - 2 - Grovehurst Road	2.3	17.33	0.70	0.5	6.94	0.33
1 - North - 4 - B2005 - link	0.5	3.15	0.31	0.7	3.62	0.42
2 - South - 2 - B2005 - link	2.7	7.39	0.74	1.0	3.99	0.51
2 - South - 3 - A249 offslip (SB)	58.5	299.63	1.23	1.1	8.08	0.52
2 - South - 4 - Swale Way	3.4	16.38	0.78	233.1	732.25	1.38
2 - South - 5 - Grovehurst Road	3.9	21.80	0.81	2.6	16.62	0.73

2031 + K3 and WKN Operational						
1 - North - 1 - A249 offslip (NB)	6.8	27.05	0.89	14.5	59.50	0.97
1 - North - 2 - Grovehurst Road	2.4	18.61	0.72	0.5	7.06	0.33
1 - North - 4 - B2005 - link	0.5	3.15	0.31	0.7	3.58	0.42
2 - South - 2 - B2005 - link	2.9	7.74	0.75	1.1	4.11	0.52
2 - South - 3 - A249 offslip (SB)	65.8	339.52	1.27	1.1	8.36	0.53
2 - South - 4 - Swale Way	3.7	17.79	0.79	257.9	804.56	1.41
2 - South - 5 - Grovehurst Road	4.3	24.03	0.82	2.7	16.85	0.74
2031 + K3 Operational + Cumulative Development						
1 - North - 1 - A249 offslip (NB)	55.7	150.73	1.08	168.5	565.98	1.29
1 - North - 2 - Grovehurst Road	104.6	548.09	1.30	1.0	8.59	0.51
1 - North - 4 - B2005 - link	0.4	3.10	0.31	0.7	3.54	0.41
2 - South - 2 - B2005 - link	5.0	11.53	0.84	1.2	4.21	0.55
2 - South - 3 - A249 offslip (SB)	246.6	2188.77	1.83	1.9	12.22	0.66
2 - South - 4 - Swale Way	18.3	79.58	0.99	504.9	1847.29	1.73
2 - South - 5 - Grovehurst Road	124.9	616.18	1.38	4.6	25.85	0.83
2031 + K3 and WKN Operational + Cumulative Development						
1 - North - 1 - A249 offslip (NB)	62.8	167.96	1.09	181.1	604.66	1.31
1 - North - 2 - Grovehurst Road	107.4	571.10	1.30	1.0	8.67	0.51
1 - North - 4 - B2005 - link	0.4	3.08	0.30	0.7	3.52	0.41
2 - South - 2 - B2005 - link	5.0	11.68	0.84	1.2	4.29	0.55
2 - South - 3 - A249 offslip (SB)	254.1	2323.79	1.84	2.0	12.49	0.67
2 - South - 4 - Swale Way	21.1	89.28	1.00	536.7	1961.49	1.76
2 - South - 5 - Grovehurst Road	136.1	671.35	1.41	4.7	26.39	0.84

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

## File summary

### File Description

Title	(untitled)
Location	
Site number	
Date	26/01/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR\Ben.Dance
Description	

## Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

## Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓			0.85	36.00	20.00

## Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓
D20	2031	PM	ONE HOUR	16:15	17:45	15	✓
D21	2031 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D22	2031 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D23	2031 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓
D24	2031 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓
D27	2031 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓
D28	2031 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓
D29	2031 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D30	2031 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓
D33	2031 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓
D34	2031 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

### Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

# 2017, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	6.71	A
2	South	Standard Roundabout	1, 2, 3, 4, 5	8.39	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Junction	Arm	Name	Description
1 - North	1	A249 offslip (NB)	
	2	Grovehurst Road	
	3	A249 onslip (NB)	
	4	B2005 - link	
2 - South	1	A249 onslip (SB)	
	2	B2005 - link	
	3	A249 offslip (SB)	
	4	Swale Way	
	5	Grovehurst Road	

### Roundabout Geometry

Junction	Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - North	1 - A249 offslip (NB)	7.93	9.50	56.8	13.3	45.0	27.0	
	2 - Grovehurst Road	3.66	9.50	25.3	50.9	45.0	34.0	
	3 - A249 onslip (NB)							✓
	4 - B2005 - link	4.01	8.00	13.3	20.6	45.0	41.0	
2 - South	1 - A249 onslip (SB)							✓
	2 - B2005 - link	3.66	7.00	13.1	260.8	36.3	35.0	
	3 - A249 offslip (SB)	8.26	9.50	36.8	24.9	39.2	44.0	
	4 - Swale Way	4.86	9.50	34.2	12.6	39.2	51.0	
	5 - Grovehurst Road	3.65	9.50	27.9	22.1	44.6	34.0	

### Slope / Intercept / Capacity

#### Arm Intercept Adjustments

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Junction	Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - North	1 - A249 offslip (NB)	Direct		-1050
	2 - Grovehurst Road	Direct		-400
	3 - A249 onslip (NB)			
	4 - B2005 - link	None		
2 - South	1 - A249 onslip (SB)			
	2 - B2005 - link	Direct		500
	3 - A249 offslip (SB)	Direct		-730
	4 - Swale Way	Direct		-575
	5 - Grovehurst Road	Direct		-550

### Roundabout Slope and Intercept used in model

Junction	Arm	Final slope	Final intercept (PCU/hr)
1 - North	1 - A249 offslip (NB)	0.838	1749
	2 - Grovehurst Road	0.722	1760
	3 - A249 onslip (NB)		
	4 - B2005 - link	0.630	1765
2 - South	1 - A249 onslip (SB)		
	2 - B2005 - link	0.660	2213
	3 - A249 offslip (SB)	0.838	2001
	4 - Swale Way	0.714	1629
	5 - Grovehurst Road	0.714	1597

The slope and intercept shown above include any corrections and adjustments.

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	669	100.000
	2 - Grovehurst Road		ONE HOUR	✓	398	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	518	100.000
	4 - Swale Way		ONE HOUR	✓	544	100.000
	5 - Grovehurst Road		ONE HOUR	✓	573	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
1 - North	From 1 - A249 offslip (NB)	0	42	0	627
	2 - Grovehurst Road	0	0	25	373
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only

	4 - B2005 - link	0	136	305	0
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## Demand (Veh/hr)

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	141	0	0	674	183
	3 - A249 offslip (SB)	1	18	0	325	174
	4 - Swale Way	285	194	0	0	65
	5 - Grovehurst Road	206	233	0	134	0

## Vehicle Mix

## Heavy Vehicle Percentages

1 - North

		To			
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link
From	1 - A249 offslip (NB)	0	7	0	14
	2 - Grovehurst Road	0	0	8	3
	3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	3	5	0

## Heavy Vehicle Percentages

2 - South

		To				
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road
From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	2 - B2005 - link	0	0	0	13	6
	3 - A249 offslip (SB)	0	6	0	5	4
	4 - Swale Way	32	7	0	0	6
	5 - Grovehurst Road	1	2	0	3	0

## Results

## Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.63	8.43	1.7	2.0	A	614	921
	2 - Grovehurst Road	0.48	7.71	0.9	3.5	A	365	548
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.29	3.00	0.4	1.5	A	408	612
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.57	4.38	1.3	1.8	A	917	1376
	3 - A249 offslip (SB)	0.69	14.29	2.2	7.9	B	475	713
	4 - Swale Way	0.60	8.84	1.5	2.2	A	499	749
	5 - Grovehurst Road	0.64	9.94	1.7	3.1	A	526	789

## Main Results for each time segment

07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	504	126	332	1285	0.392	501	0	0.0	0.6	4.580	A
	2 - Grovehurst Road	300	75	699	1161	0.258	298	134	0.0	0.3	4.166	A

	3 - A249 onslip (NB)			749				248				
	4 - B2005 - link	333	83	0	1690	0.197	332	749	0.0	0.2	2.649	A
2 - South	1 - A249 onslip (SB)			434				474				
	2 - B2005 - link	749	187	100	1952	0.384	747	333	0.0	0.6	2.981	A
	3 - A249 offslip (SB)	390	97	847	1172	0.333	388	0	0.0	0.5	4.583	A
	4 - Swale Way	410	102	387	1119	0.366	407	848	0.0	0.6	5.043	A
	5 - Grovehurst Road	431	108	478	1177	0.367	429	316	0.0	0.6	4.801	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	601	150	399	1233	0.488	600	0	0.6	0.9	5.676	A
	2 - Grovehurst Road	358	89	838	1053	0.340	357	161	0.3	0.5	5.169	A
	3 - A249 onslip (NB)			897				298				
	4 - B2005 - link	399	100	0	1690	0.236	399	897	0.2	0.3	2.786	A
2 - South	1 - A249 onslip (SB)			519				568				
	2 - B2005 - link	897	224	120	1939	0.463	896	399	0.6	0.9	3.449	A
	3 - A249 offslip (SB)	466	116	1017	1024	0.455	464	0	0.5	0.8	6.421	A
	4 - Swale Way	489	122	464	1071	0.457	488	1017	0.6	0.8	6.160	A
	5 - Grovehurst Road	515	129	573	1099	0.469	514	379	0.6	0.9	6.140	A

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	737	184	487	1165	0.632	734	0	0.9	1.7	8.284	A
	2 - Grovehurst Road	438	110	1024	909	0.482	437	196	0.5	0.9	7.602	A
	3 - A249 onslip (NB)			1097				364				
	4 - B2005 - link	487	122	0	1690	0.288	487	1097	0.3	0.4	2.991	A
2 - South	1 - A249 onslip (SB)			634				694				
	2 - B2005 - link	1097	274	147	1923	0.570	1095	488	0.9	1.3	4.339	A
	3 - A249 offslip (SB)	570	143	1242	827	0.690	565	0	0.8	2.1	13.495	B
	4 - Swale Way	599	150	566	1008	0.594	597	1241	0.8	1.4	8.691	A
	5 - Grovehurst Road	631	158	701	995	0.634	628	462	0.9	1.7	9.713	A

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	737	184	490	1163	0.633	736	0	1.7	1.7	8.430	A
	2 - Grovehurst Road	438	110	1029	905	0.484	438	197	0.9	0.9	7.709	A
	3 - A249 onslip (NB)			1101				366				
	4 - B2005 - link	490	122	0	1690	0.290	490	1101	0.4	0.4	2.997	A
2 - South	1 - A249 onslip (SB)			637				697				
	2 - B2005 - link	1101	275	148	1922	0.573	1101	490	1.3	1.3	4.382	A
	3 - A249 offslip (SB)	570	143	1248	821	0.695	570	0	2.1	2.2	14.292	B
	4 - Swale Way	599	150	570	1006	0.595	599	1249	1.4	1.5	8.840	A
	5 - Grovehurst Road	631	158	704	993	0.636	631	465	1.7	1.7	9.940	A

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	601	150	403	1230	0.489	604	0	1.7	1.0	5.779	A
	2 - Grovehurst Road	358	89	845	1048	0.341	359	162	0.9	0.5	5.242	A
	3 - A249 onslip (NB)			903				301				
	4 - B2005 - link	402	101	0	1690	0.238	403	903	0.4	0.3	2.797	A
2 - South	1 - A249 onslip (SB)			524				573				
	2 - B2005 - link	903	226	121	1939	0.466	905	402	1.3	0.9	3.488	A
	3 - A249 offslip (SB)	466	116	1026	1015	0.459	471	0	2.2	0.9	6.683	A
	4 - Swale Way	489	122	469	1068	0.458	491	1028	1.5	0.9	6.268	A
	5 - Grovehurst Road	515	129	578	1095	0.470	518	383	1.7	0.9	6.272	A

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
	1 - A249 offslip (NB)	504	126	336	1282	0.393	505	0	1.0	0.7	4.644	A

1 - North	2 - Grovehurst Road	300	75	706	1156	0.259	300	135	0.5	0.4	4.211	A
	3 - A249 onslip (NB)			755				251				
	4 - B2005 - link	336	84	0	1690	0.199	336	755	0.3	0.2	2.658	A
	1 - A249 onslip (SB)			437				478				
2 - South	2 - B2005 - link	755	189	101	1951	0.387	756	336	0.9	0.6	3.013	A
	3 - A249 offslip (SB)	390	97	857	1163	0.335	391	0	0.9	0.5	4.673	A
	4 - Swale Way	410	102	391	1116	0.367	411	857	0.9	0.6	5.111	A
	5 - Grovehurst Road	431	108	483	1173	0.368	433	319	0.9	0.6	4.871	A

### Queue Variation Results for each time segment

#### 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	0.64	0.55	1.00	1.40	1.45			N/A	N/A
	2 - Grovehurst Road	0.35	0.00	0.00	0.35	0.35			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.24	0.00	0.00	0.24	0.24			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.62	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.50	0.00	0.00	0.50	0.50			N/A	N/A
	4 - Swale Way	0.57	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	0.57	0.55	1.00	1.40	1.45			N/A	N/A

#### 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	0.94	0.08	0.85	1.60	1.96			N/A	N/A
	2 - Grovehurst Road	0.51	0.05	0.54	1.31	1.40			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.31	0.00	0.00	0.31	0.31			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.86	0.08	0.82	1.32	1.75			N/A	N/A
	3 - A249 offslip (SB)	0.82	0.06	0.70	1.44	1.88			N/A	N/A
	4 - Swale Way	0.83	0.09	0.86	1.49	1.50			N/A	N/A
	5 - Grovehurst Road	0.87	0.08	0.83	1.38	1.79			N/A	N/A

#### 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.68	0.03	0.27	1.68	1.73			N/A	N/A
	2 - Grovehurst Road	0.92	0.03	0.26	0.92	0.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.40	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.31	0.03	0.26	1.31	1.31			N/A	N/A
	3 - A249 offslip (SB)	2.12	0.03	0.29	2.12	7.89			N/A	N/A
	4 - Swale Way	1.43	0.03	0.27	1.43	1.43			N/A	N/A
	5 - Grovehurst Road	1.68	0.03	0.27	1.68	2.69			N/A	N/A

#### 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.70	0.03	0.27	1.70	1.79			N/A	N/A
	2 - Grovehurst Road	0.93	0.03	0.28	0.93	3.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.41	0.03	0.32	1.32	1.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.33	0.03	0.26	1.33	1.33			N/A	N/A
	3 - A249 offslip (SB)	2.21	0.03	0.28	2.21	7.57			N/A	N/A
	4 - Swale Way	1.45	0.03	0.27	1.45	2.17			N/A	N/A
	5 - Grovehurst Road	1.72	0.03	0.27	1.72	3.05			N/A	N/A



## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	0.97	0.10	0.94	1.51	1.85			N/A	N/A
	2 - Grovehurst Road	0.52	0.06	0.62	1.32	1.41			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.31	0.00	0.00	0.31	0.31			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.88	0.52	0.99	1.41	1.46			N/A	N/A
	3 - A249 offslip (SB)	0.86	0.06	0.68	1.59	2.00			N/A	N/A
	4 - Swale Way	0.86	0.10	0.89	1.49	1.51			N/A	N/A
	5 - Grovehurst Road	0.90	0.08	0.87	1.41	1.80			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	0.65	0.05	0.50	1.46	1.49			N/A	N/A
	2 - Grovehurst Road	0.35	0.03	0.27	0.48	0.78			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.25	0.00	0.00	0.25	0.25			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.63	0.09	0.79	1.36	1.43			N/A	N/A
	3 - A249 offslip (SB)	0.51	0.04	0.36	1.44	1.63			N/A	N/A
	4 - Swale Way	0.58	0.05	0.49	1.36	1.48			N/A	N/A
	5 - Grovehurst Road	0.59	0.04	0.44	1.39	1.39			N/A	N/A

# 2017, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	12.50	B
2	South	Standard Roundabout	1, 2, 3, 4, 5	43.78	E

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2017	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	749	100.000
	2 - Grovehurst Road		ONE HOUR	✓	222	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	431	100.000
	4 - Swale Way		ONE HOUR	✓	989	100.000
	5 - Grovehurst Road		ONE HOUR	✓	528	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	569
		2 - Grovehurst Road	0	0	27	195
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	234	470	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	42	0	0	396	322
		3 - A249 offslip (SB)	1	27	0	187	216
		4 - Swale Way	509	351	0	0	129
		5 - Grovehurst Road	110	318	0	100	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	1	0	16
		2 - Grovehurst Road	0	0	0	1
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	3	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	22	1
		3 - A249 offslip (SB)	0	11	0	7	4
		4 - Swale Way	14	2	0	0	2
		5 - Grovehurst Road	0	2	0	3	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.84	21.72	4.7	23.6	C	687	1031
	2 - Grovehurst Road	0.29	5.88	0.4	1.3	A	204	306
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.43	3.67	0.8	2.1	A	640	960
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.44	3.37	0.8	2.1	A	702	1052
	3 - A249 offslip (SB)	0.45	6.19	0.8	3.3	A	395	593
	4 - Swale Way	1.04	106.63	34.1	91.4	F	908	1361
	5 - Grovehurst Road	0.71	14.92	2.3	8.6	B	485	727

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	564	141	520	1161	0.486	560	0	0.0	0.9	5.957	A
	2 - Grovehurst Road	167	42	773	1135	0.147	166	308	0.0	0.2	3.714	A
	3 - A249 onslip (NB)			572				368				
	4 - B2005 - link	522	130	0	1730	0.302	520	572	0.0	0.4	2.972	A
2 - South	1 - A249 onslip (SB)			595				494				
	2 - B2005 - link	573	143	75	1930	0.297	571	520	0.0	0.4	2.645	A
	3 - A249 offslip (SB)	324	81	646	1325	0.245	323	0	0.0	0.3	3.590	A
	4 - Swale Way	745	186	456	1197	0.622	738	513	0.0	1.6	7.747	A
	5 - Grovehurst Road	398	99	694	1039	0.383	395	500	0.0	0.6	5.570	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	673	168	624	1082	0.622	671	0	0.9	1.6	8.694	A
	2 - Grovehurst Road	200	50	926	1015	0.197	199	369	0.2	0.2	4.414	A
	3 - A249 onslip (NB)			685				441				
	4 - B2005 - link	624	156	0	1730	0.361	624	685	0.4	0.6	3.252	A
2 - South	1 - A249 onslip (SB)			712				591				
	2 - B2005 - link	686	171	90	1921	0.357	685	622	0.4	0.6	2.910	A
	3 - A249 offslip (SB)	387	97	775	1211	0.320	387	0	0.3	0.5	4.364	A
	4 - Swale Way	889	222	547	1135	0.783	882	614	1.6	3.4	13.833	B
	5 - Grovehurst Road	475	119	830	935	0.507	473	599	0.6	1.0	7.759	A

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	825	206	740	994	0.830	814	0	1.6	4.3	18.942	C
	2 - Grovehurst Road	244	61	1112	867	0.282	244	441	0.2	0.4	5.770	A
	3 - A249 onslip (NB)			832				523				
	4 - B2005 - link	740	185	0	1730	0.428	740	832	0.6	0.7	3.634	A
2 - South	1 - A249 onslip (SB)			847				691				
	2 - B2005 - link	833	208	109	1909	0.437	833	738	0.6	0.8	3.340	A
	3 - A249 offslip (SB)	475	119	942	1064	0.446	473	0	0.5	0.8	6.078	A
	4 - Swale Way	1089	272	667	1054	1.033	1017	748	3.4	21.4	56.760	F
	5 - Grovehurst Road	581	145	961	836	0.696	577	723	1.0	2.2	13.662	B

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	825	206	750	986	0.837	823	0	4.3	4.7	21.724	C
	2 - Grovehurst Road	244	61	1126	856	0.286	244	447	0.4	0.4	5.885	A
	3 - A249 onslip (NB)			840				531				
	4 - B2005 - link	751	188	0	1730	0.434	750	840	0.7	0.8	3.675	A
2 - South	1 - A249 onslip (SB)			858				703				
	2 - B2005 - link	841	210	110	1909	0.441	841	748	0.8	0.8	3.371	A
	3 - A249 offslip (SB)	475	119	951	1056	0.449	474	0	0.8	0.8	6.191	A
	4 - Swale Way	1089	272	671	1051	1.036	1038	754	21.4	34.1	106.632	F
	5 - Grovehurst Road	581	145	980	821	0.708	581	730	2.2	2.3	14.919	B

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	673	168	673	1044	0.645	685	0	4.7	1.9	10.316	B
	2 - Grovehurst Road	200	50	970	981	0.203	200	388	0.4	0.3	4.613	A
	3 - A249 onslip (NB)			696				474				
	4 - B2005 - link	673	168	0	1730	0.389	673	696	0.8	0.6	3.410	A
	1 - A249 onslip (SB)			761				658				

2 - South	2 - B2005 - link	697	174	91	1921	0.363	698	671	0.8	0.6	2.946	A
	3 - A249 offslip (SB)	387	97	789	1199	0.323	389	0	0.8	0.5	4.453	A
	4 - Swale Way	889	222	554	1130	0.787	1009	623	34.1	4.1	46.441	E
	5 - Grovehurst Road	475	119	941	851	0.558	479	622	2.3	1.3	9.791	A

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	564	141	532	1152	0.489	567	0	1.9	1.0	6.194	A
	2 - Grovehurst Road	167	42	786	1125	0.149	167	313	0.3	0.2	3.762	A
	3 - A249 onslip (NB)			578				375				
	4 - B2005 - link	531	133	0	1730	0.307	532	578	0.6	0.4	3.008	A
2 - South	1 - A249 onslip (SB)			605				504				
	2 - B2005 - link	579	145	76	1930	0.300	580	529	0.6	0.4	2.669	A
	3 - A249 offslip (SB)	324	81	656	1316	0.247	325	0	0.5	0.3	3.637	A
	4 - Swale Way	745	186	462	1193	0.624	754	519	4.1	1.7	8.380	A
	5 - Grovehurst Road	398	99	709	1028	0.387	400	507	1.3	0.6	5.759	A

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	0.93	0.55	1.00	1.40	1.45			N/A	N/A
	2 - Grovehurst Road	0.17	0.00	0.00	0.17	0.17			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.42	0.00	0.00	0.42	0.42			N/A	N/A
	3 - A249 offslip (SB)	0.32	0.00	0.00	0.32	0.32			N/A	N/A
	4 - Swale Way	1.61	0.26	1.40	2.62	3.15			N/A	N/A
	5 - Grovehurst Road	0.61	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.61	0.05	0.66	3.98	6.02			N/A	N/A
	2 - Grovehurst Road	0.24	0.00	0.00	0.24	0.24			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.56	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.55	0.08	0.75	1.35	1.43			N/A	N/A
	3 - A249 offslip (SB)	0.47	0.00	0.00	0.47	0.47			N/A	N/A
	4 - Swale Way	3.38	0.06	0.92	9.34	14.65			N/A	N/A
	5 - Grovehurst Road	1.01	0.07	0.84	1.83	2.49			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.34	0.04	0.36	10.03	23.62			N/A	N/A
	2 - Grovehurst Road	0.39	0.03	0.25	0.46	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.74	0.03	0.25	0.74	0.74			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.77	0.03	0.25	0.77	0.77			N/A	N/A
	3 - A249 offslip (SB)	0.80	0.03	0.26	0.80	0.80			N/A	N/A
	4 - Swale Way	21.40	1.44	15.74	45.68	57.99			N/A	N/A
	5 - Grovehurst Road	2.18	0.03	0.29	2.18	8.56			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	4.74	0.03	0.31	5.41	22.27			N/A	N/A
	2 - Grovehurst Road	0.40	0.03	0.33	1.25	1.25			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.76	0.03	0.27	0.76	2.05			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.78	0.03	0.27	0.78	2.13			N/A	N/A
	3 - A249 offslip (SB)	0.81	0.03	0.28	1.06	3.32			N/A	N/A
	4 - Swale Way	34.05	2.82	25.62	72.31	91.41			N/A	N/A
	5 - Grovehurst Road	2.34	0.03	0.28	2.34	7.28			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.87	0.05	0.50	4.91	7.75			N/A	N/A
	2 - Grovehurst Road	0.26	0.00	0.00	0.26	0.26			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.64	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.57	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.48	0.00	0.00	0.48	0.48			N/A	N/A
	4 - Swale Way	4.15	0.04	0.41	11.30	21.73			N/A	N/A
	5 - Grovehurst Road	1.29	0.09	1.05	2.42	3.14			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	0.97	0.03	0.33	2.11	4.82			N/A	N/A
	2 - Grovehurst Road	0.18	0.00	0.00	0.18	0.18			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.44	0.00	0.00	0.44	0.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.43	0.00	0.00	0.43	0.43			N/A	N/A
	3 - A249 offslip (SB)	0.33	0.00	0.00	0.33	0.33			N/A	N/A
	4 - Swale Way	1.70	0.03	0.29	1.70	6.48			N/A	N/A
	5 - Grovehurst Road	0.64	0.04	0.38	1.40	2.21			N/A	N/A

# 2024, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	14.06	B
2	South	Standard Roundabout	1, 2, 3, 4, 5	50.00	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	838	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	569	100.000
	4 - Swale Way		ONE HOUR	✓	676	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	796
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	147	326	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	141	0	0	885	183
		3 - A249 offslip (SB)	1	18	0	376	174
		4 - Swale Way	374	225	0	0	77
		5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	7	0	17
		2 - Grovehurst Road	0	0	8	3
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	6	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	15	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	36	9	0	0	9
		5 - Grovehurst Road	1	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.83	19.20	4.7	24.1	C	769	1153
	2 - Grovehurst Road	0.67	15.10	2.0	7.3	C	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.31	3.12	0.5	1.9	A	437	655
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.72	6.83	2.5	4.8	A	1113	1670
	3 - A249 offslip (SB)	1.15	226.40	44.4	84.7	F	522	783
	4 - Swale Way	0.75	14.51	2.9	12.9	B	620	930
	5 - Grovehurst Road	0.78	18.91	3.4	16.7	C	561	841



## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	631	158	355	1232	0.512	627	0	0.0	1.0	5.905	A
	2 - Grovehurst Road	331	83	840	1036	0.320	329	142	0.0	0.5	5.083	A
	3 - A249 onslip (NB)			906				264				
	4 - B2005 - link	356	89	0	1674	0.213	355	906	0.0	0.3	2.726	A
2 - South	1 - A249 onslip (SB)			485				540				
	2 - B2005 - link	909	227	129	1899	0.479	905	356	0.0	0.9	3.609	A
	3 - A249 offslip (SB)	428	107	1034	969	0.442	425	0	0.0	0.8	6.586	A
	4 - Swale Way	509	127	387	1083	0.470	505	1072	0.0	0.9	6.194	A
	5 - Grovehurst Road	460	115	568	1084	0.424	457	325	0.0	0.7	5.714	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	753	188	426	1178	0.639	751	0	1.0	1.7	8.360	A
	2 - Grovehurst Road	396	99	1007	903	0.438	394	170	0.5	0.8	7.059	A
	3 - A249 onslip (NB)			1085				316				
	4 - B2005 - link	427	107	0	1674	0.255	426	1085	0.3	0.3	2.884	A
2 - South	1 - A249 onslip (SB)			580				647				
	2 - B2005 - link	1088	272	154	1883	0.578	1086	426	0.9	1.4	4.508	A
	3 - A249 offslip (SB)	512	128	1240	790	0.648	508	0	0.8	1.8	12.580	B
	4 - Swale Way	608	152	463	1038	0.586	606	1285	0.9	1.4	8.296	A
	5 - Grovehurst Road	549	137	680	989	0.555	547	389	0.7	1.2	8.105	A

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	923	231	516	1110	0.831	912	0	1.7	4.4	17.290	C
	2 - Grovehurst Road	484	121	1222	732	0.662	480	206	0.8	1.9	14.066	B
	3 - A249 onslip (NB)			1319				383				
	4 - B2005 - link	517	129	0	1674	0.309	516	1319	0.3	0.4	3.109	A
2 - South	1 - A249 onslip (SB)			704				787				
	2 - B2005 - link	1323	331	187	1863	0.710	1318	516	1.4	2.4	6.565	A
	3 - A249 offslip (SB)	626	157	1506	560	1.118	542	0	1.8	23.0	100.388	F
	4 - Swale Way	744	186	537	994	0.749	739	1510	1.4	2.8	13.808	B
	5 - Grovehurst Road	673	168	826	866	0.777	665	449	1.2	3.2	17.242	C

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	923	231	521	1106	0.834	922	0	4.4	4.7	19.198	C
	2 - Grovehurst Road	484	121	1235	722	0.671	484	208	1.9	2.0	15.096	C
	3 - A249 onslip (NB)			1332				387				
	4 - B2005 - link	521	130	0	1674	0.311	521	1332	0.4	0.5	3.121	A
2 - South	1 - A249 onslip (SB)			710				795				
	2 - B2005 - link	1336	334	189	1861	0.718	1335	521	2.4	2.5	6.832	A
	3 - A249 offslip (SB)	626	157	1524	544	1.152	541	0	23.0	44.4	226.403	F
	4 - Swale Way	744	186	541	991	0.751	744	1524	2.8	2.9	14.509	B
	5 - Grovehurst Road	673	168	833	861	0.782	672	452	3.2	3.4	18.906	C

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	753	188	439	1169	0.645	765	0	4.7	1.9	9.145	A
	2 - Grovehurst Road	396	99	1029	886	0.447	400	175	2.0	0.8	7.483	A
	3 - A249 onslip (NB)			1104				325				
	4 - B2005 - link	439	110	0	1674	0.262	439	1104	0.5	0.4	2.916	A
	1 - A249 onslip (SB)			595				658				

2 - South	2 - B2005 - link	1107	277	157	1881	0.589	1111	438	2.5	1.4	4.700	A
	3 - A249 offslip (SB)	512	128	1268	766	0.668	680	0	44.4	2.3	87.971	F
	4 - Swale Way	608	152	528	998	0.609	613	1420	2.9	1.6	9.463	A
	5 - Grovehurst Road	549	137	695	977	0.562	558	446	3.4	1.3	8.742	A

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	631	158	361	1228	0.514	634	0	1.9	1.1	6.092	A
	2 - Grovehurst Road	331	83	851	1027	0.323	333	144	0.8	0.5	5.193	A
	3 - A249 onslip (NB)			916				268				
	4 - B2005 - link	361	90	0	1674	0.215	361	916	0.4	0.3	2.740	A
2 - South	1 - A249 onslip (SB)			490				547				
	2 - B2005 - link	919	230	130	1898	0.484	921	360	1.4	0.9	3.694	A
	3 - A249 offslip (SB)	428	107	1051	954	0.449	434	0	2.3	0.8	7.000	A
	4 - Swale Way	509	127	394	1079	0.472	512	1091	1.6	0.9	6.376	A
	5 - Grovehurst Road	460	115	575	1078	0.427	462	330	1.3	0.8	5.870	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.03	0.55	1.00	1.40	1.45			N/A	N/A
	2 - Grovehurst Road	0.47	0.00	0.00	0.47	0.47			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.91	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.78	0.06	0.72	1.18	1.68			N/A	N/A
	4 - Swale Way	0.87	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	0.73	0.55	1.00	1.40	1.45			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.73	0.05	0.65	4.41	6.71			N/A	N/A
	2 - Grovehurst Road	0.77	0.07	0.74	1.50	1.56			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.35	0.05	0.60	3.24	4.84			N/A	N/A
	3 - A249 offslip (SB)	1.77	0.04	0.39	4.71	8.57			N/A	N/A
	4 - Swale Way	1.38	0.06	0.88	3.00	4.32			N/A	N/A
	5 - Grovehurst Road	1.22	0.06	0.71	2.74	3.91			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.43	0.03	0.35	9.69	24.07			N/A	N/A
	2 - Grovehurst Road	1.87	0.03	0.28	1.87	6.43			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.44	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.39	0.03	0.27	2.39	3.14			N/A	N/A
	3 - A249 offslip (SB)	23.01	5.30	19.81	41.09	49.00			N/A	N/A
	4 - Swale Way	2.82	0.03	0.30	2.89	12.89			N/A	N/A
	5 - Grovehurst Road	3.21	0.03	0.32	5.55	16.72			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	4.71	0.03	0.30	4.71	20.41			N/A	N/A
	2 - Grovehurst Road	1.98	0.03	0.29	1.98	7.30			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.31	1.38	1.86			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.49	0.03	0.27	2.49	2.49			N/A	N/A
	3 - A249 offslip (SB)	44.35	15.08	40.37	73.03	84.68			N/A	N/A
	4 - Swale Way	2.92	0.03	0.28	2.92	7.64			N/A	N/A
	5 - Grovehurst Road	3.40	0.03	0.29	3.40	13.85			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.86	0.05	0.47	4.95	8.03			N/A	N/A
	2 - Grovehurst Road	0.82	0.06	0.71	1.40	1.84			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.45	0.11	1.18	2.69	3.51			N/A	N/A
	3 - A249 offslip (SB)	2.25	0.03	0.33	4.58	11.96			N/A	N/A
	4 - Swale Way	1.59	0.06	0.91	3.72	5.33			N/A	N/A
	5 - Grovehurst Road	1.31	0.05	0.50	3.18	4.85			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.07	0.03	0.34	2.48	5.33			N/A	N/A
	2 - Grovehurst Road	0.48	0.04	0.36	1.38	1.40			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.95	0.05	0.59	1.91	2.77			N/A	N/A
	3 - A249 offslip (SB)	0.83	0.03	0.26	0.83	0.83			N/A	N/A
	4 - Swale Way	0.90	0.04	0.38	2.18	3.78			N/A	N/A
	5 - Grovehurst Road	0.75	0.03	0.34	1.75	3.41			N/A	N/A

# 2024, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	22.68	C
2	South	Standard Roundabout	1, 2, 3, 4, 5	258.52	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	813	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	442	100.000
	4 - Swale Way		ONE HOUR	✓	1252	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	633
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	262	521	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	42	0	0	465	322
		3 - A249 offslip (SB)	1	27	0	198	216
		4 - Swale Way	662	431	0	0	159
	5 - Grovehurst Road	110	318	0	106	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	1	0	20
		2 - Grovehurst Road	0	0	0	1
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	3	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	26	1
		3 - A249 offslip (SB)	0	11	0	8	4
		4 - Swale Way	17	2	0	0	3
	5 - Grovehurst Road	0	2	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.93	41.91	9.7	51.5	E	746	1119
	2 - Grovehurst Road	0.32	6.69	0.5	1.8	A	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.43	3.63	0.7	1.5	A	682	1023
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.49	3.84	1.0	1.5	A	766	1149
	3 - A249 offslip (SB)	0.51	7.65	1.0	3.6	A	406	608
	4 - Swale Way	1.33	617.22	194.5	200.0	F	1149	1723
	5 - Grovehurst Road	0.73	16.36	2.6	12.0	C	490	735

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	612	153	577	1085	0.564	607	0	0.0	1.3	7.458	A
	2 - Grovehurst Road	171	43	856	1056	0.162	170	327	0.0	0.2	4.061	A
	3 - A249 onslip (NB)			622				404				
	4 - B2005 - link	579	145	0	1730	0.335	577	622	0.0	0.5	3.116	A
2 - South	1 - A249 onslip (SB)			656				605				
	2 - B2005 - link	624	156	79	1876	0.333	622	577	0.0	0.5	2.867	A
	3 - A249 offslip (SB)	333	83	702	1254	0.265	331	0	0.0	0.4	3.897	A
	4 - Swale Way	943	236	456	1176	0.801	928	577	0.0	3.7	13.753	B
	5 - Grovehurst Road	402	101	862	897	0.448	399	521	0.0	0.8	7.177	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	731	183	678	1010	0.723	726	0	1.3	2.5	12.447	B
	2 - Grovehurst Road	204	51	1016	927	0.220	204	388	0.2	0.3	4.978	A
	3 - A249 onslip (NB)			745				475				
	4 - B2005 - link	678	170	0	1730	0.392	678	745	0.5	0.6	3.419	A
2 - South	1 - A249 onslip (SB)			771				702				
	2 - B2005 - link	747	187	95	1866	0.400	746	676	0.5	0.7	3.213	A
	3 - A249 offslip (SB)	397	99	841	1129	0.352	397	0	0.4	0.5	4.913	A
	4 - Swale Way	1126	281	547	1116	1.008	1068	691	3.7	18.0	48.927	E
	5 - Grovehurst Road	480	120	996	794	0.605	477	619	0.8	1.5	11.269	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	895	224	737	967	0.926	872	0	2.5	8.3	31.976	D
	2 - Grovehurst Road	250	62	1169	800	0.312	249	439	0.3	0.4	6.525	A
	3 - A249 onslip (NB)			898				520				
	4 - B2005 - link	737	184	0	1730	0.426	737	898	0.6	0.7	3.621	A
2 - South	1 - A249 onslip (SB)			850				715				
	2 - B2005 - link	901	225	116	1854	0.486	899	734	0.7	0.9	3.770	A
	3 - A249 offslip (SB)	487	122	1015	972	0.501	485	0	0.5	1.0	7.363	A
	4 - Swale Way	1378	345	663	1039	1.327	1037	838	18.0	103.3	220.307	F
	5 - Grovehurst Road	588	147	982	805	0.730	584	718	1.5	2.5	15.929	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	895	224	738	966	0.927	890	0	8.3	9.7	41.906	E
	2 - Grovehurst Road	250	62	1184	788	0.317	250	444	0.4	0.5	6.695	A
	3 - A249 onslip (NB)			913				521				
	4 - B2005 - link	738	185	0	1730	0.427	738	913	0.7	0.7	3.628	A
2 - South	1 - A249 onslip (SB)			852				715				
	2 - B2005 - link	915	229	117	1853	0.494	915	736	0.9	1.0	3.838	A
	3 - A249 offslip (SB)	487	122	1032	957	0.509	487	0	1.0	1.0	7.645	A
	4 - Swale Way	1378	345	670	1034	1.333	1034	848	103.3	189.5	504.156	F
	5 - Grovehurst Road	588	147	980	807	0.728	588	725	2.5	2.6	16.356	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	731	183	695	997	0.733	758	0	9.7	2.9	16.572	C
	2 - Grovehurst Road	204	51	1053	896	0.228	205	401	0.5	0.3	5.211	A
	3 - A249 onslip (NB)			771				487				
	4 - B2005 - link	695	174	0	1730	0.402	695	771	0.7	0.7	3.480	A
2 - South	1 - A249 onslip (SB)			789				725				

2 - South	2 - B2005 - link	774	193	96	1865	0.415	775	693	1.0	0.7	3.306	A
	3 - A249 offslip (SB)	397	99	871	1101	0.361	399	0	1.0	0.6	5.140	A
	4 - Swale Way	1126	281	561	1107	1.017	1106	709	189.5	194.5	617.219	F
	5 - Grovehurst Road	480	120	1030	767	0.626	484	637	2.6	1.7	12.837	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	612	153	664	1020	0.600	618	0	2.9	1.5	9.055	A
	2 - Grovehurst Road	171	43	923	1006	0.170	171	359	0.3	0.2	4.315	A
	3 - A249 onslip (NB)			632				462				
	4 - B2005 - link	664	166	0	1730	0.384	664	632	0.7	0.6	3.380	A
2 - South	1 - A249 onslip (SB)			743				733				
	2 - B2005 - link	634	158	80	1875	0.338	635	662	0.7	0.5	2.903	A
	3 - A249 offslip (SB)	333	83	715	1242	0.268	334	0	0.6	0.4	3.966	A
	4 - Swale Way	943	236	463	1172	0.804	1166	586	194.5	138.6	514.936	F
	5 - Grovehurst Road	402	101	1071	735	0.547	404	558	1.7	1.2	10.946	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.27	0.55	1.18	1.65	1.85			N/A	N/A
	2 - Grovehurst Road	0.19	0.00	0.00	0.19	0.19			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.50	0.00	0.00	0.50	0.50			N/A	N/A
	3 - A249 offslip (SB)	0.36	0.00	0.00	0.36	0.36			N/A	N/A
	4 - Swale Way	3.73	0.03	0.35	8.10	20.19			N/A	N/A
	5 - Grovehurst Road	0.80	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.49	0.06	0.92	6.61	10.03			N/A	N/A
	2 - Grovehurst Road	0.28	0.00	0.00	0.28	0.28			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.64	0.20	0.93	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.66	0.10	0.83	1.37	1.44			N/A	N/A
	3 - A249 offslip (SB)	0.54	0.06	0.66	1.33	1.42			N/A	N/A
	4 - Swale Way	18.03	0.39	10.22	44.42	60.17			N/A	N/A
	5 - Grovehurst Road	1.48	0.09	1.11	2.94	3.96			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	8.33	0.07	1.24	24.08	38.23			N/A	N/A
	2 - Grovehurst Road	0.45	0.03	0.25	0.46	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.74	0.03	0.25	0.74	0.74			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.94	0.03	0.25	0.94	0.94			N/A	N/A
	3 - A249 offslip (SB)	0.99	0.03	0.26	0.99	0.99			N/A	N/A
	4 - Swale Way	103.34	58.14	99.83	143.51	157.81			N/A	N/A
	5 - Grovehurst Road	2.55	0.03	0.30	2.94	11.99			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	9.74	0.05	0.47	27.47	51.49			N/A	N/A
	2 - Grovehurst Road	0.46	0.03	0.32	1.41	1.82			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.74	0.03	0.27	0.74	1.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.97	0.03	0.27	0.97	1.19			N/A	N/A
	3 - A249 offslip (SB)	1.02	0.03	0.28	1.02	3.61			N/A	N/A
	4 - Swale Way	189.55	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.61	0.03	0.28	2.61	6.62			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.90	0.04	0.42	7.97	14.56			N/A	N/A
	2 - Grovehurst Road	0.30	0.00	0.00	0.30	0.30			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.68	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.71	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.57	0.09	0.79	1.36	1.43			N/A	N/A
	4 - Swale Way	194.45	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.73	0.06	0.78	4.30	6.41			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.53	0.03	0.31	2.76	7.90			N/A	N/A
	2 - Grovehurst Road	0.21	0.00	0.00	0.21	0.21			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.63	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.51	0.51	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.37	0.03	0.28	0.66	1.08			N/A	N/A
	4 - Swale Way	138.59	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.24	0.05	0.47	2.99	4.69			N/A	N/A



# 2024 + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	20.39	C
2	South	Standard Roundabout	1, 2, 3, 4, 5	80.36	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	881	100.000
	2 - Grovehurst Road		ONE HOUR	✓	446	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	592	100.000
	4 - Swale Way		ONE HOUR	✓	677	100.000
	5 - Grovehurst Road		ONE HOUR	✓	736	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	45	0	836
		2 - Grovehurst Road	0	0	25	421
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	151	365	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	144	0	0	885	225
		3 - A249 offslip (SB)	1	18	0	376	197
		4 - Swale Way	375	225	0	0	77
		5 - Grovehurst Road	287	277	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	13	0	16
		2 - Grovehurst Road	0	0	8	4
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	6	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	15	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	37	9	0	0	9
		5 - Grovehurst Road	1	1	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.90	29.29	7.4	40.7	D	808	1213
	2 - Grovehurst Road	0.74	20.90	2.7	12.5	C	409	614
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.33	3.23	0.5	2.3	A	473	710
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.74	7.44	2.8	5.6	A	1153	1730
	3 - A249 offslip (SB)	1.29	359.35	71.6	112.3	F	543	815
	4 - Swale Way	0.78	17.04	3.4	16.8	C	621	932
	5 - Grovehurst Road	0.94	52.02	11.0	54.2	F	675	1013

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	663	166	385	1217	0.545	659	0	0.0	1.2	6.395	A
	2 - Grovehurst Road	336	84	897	987	0.340	334	146	0.0	0.5	5.497	A
	3 - A249 onslip (NB)			940				291				
	4 - B2005 - link	386	96	0	1674	0.230	385	940	0.0	0.3	2.789	A
2 - South	1 - A249 onslip (SB)			517				603				
	2 - B2005 - link	941	235	129	1899	0.495	937	389	0.0	1.0	3.727	A
	3 - A249 offslip (SB)	446	111	1065	942	0.473	442	0	0.0	0.9	7.149	A
	4 - Swale Way	510	127	437	1047	0.487	506	1070	0.0	0.9	6.613	A
	5 - Grovehurst Road	554	139	570	1084	0.511	550	373	0.0	1.0	6.687	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	792	198	461	1158	0.684	788	0	1.2	2.1	9.638	A
	2 - Grovehurst Road	401	100	1074	848	0.473	399	175	0.5	0.9	8.002	A
	3 - A249 onslip (NB)			1125				349				
	4 - B2005 - link	462	115	0	1674	0.276	461	1125	0.3	0.4	2.969	A
2 - South	1 - A249 onslip (SB)			619				722				
	2 - B2005 - link	1126	282	154	1883	0.598	1124	465	1.0	1.5	4.730	A
	3 - A249 offslip (SB)	532	133	1278	758	0.702	527	0	0.9	2.2	15.234	C
	4 - Swale Way	609	152	523	995	0.611	606	1282	0.9	1.5	9.194	A
	5 - Grovehurst Road	662	165	683	988	0.670	658	446	1.0	2.0	10.782	B

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	970	242	552	1089	0.890	952	0	2.1	6.5	23.690	C
	2 - Grovehurst Road	491	123	1294	676	0.727	485	210	0.9	2.5	18.261	C
	3 - A249 onslip (NB)			1361				417				
	4 - B2005 - link	552	138	0	1674	0.330	552	1361	0.4	0.5	3.205	A
2 - South	1 - A249 onslip (SB)			739				871				
	2 - B2005 - link	1362	341	183	1865	0.730	1357	556	1.5	2.6	7.026	A
	3 - A249 offslip (SB)	652	163	1540	530	1.230	520	0	2.2	35.2	147.544	F
	4 - Swale Way	745	186	589	956	0.780	738	1471	1.5	3.3	16.061	C
	5 - Grovehurst Road	810	203	827	865	0.937	783	501	2.0	8.8	35.952	E

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	970	242	560	1083	0.896	966	0	6.5	7.4	29.295	D
	2 - Grovehurst Road	491	123	1314	660	0.744	490	213	2.5	2.7	20.904	C
	3 - A249 onslip (NB)			1380				424				
	4 - B2005 - link	560	140	0	1674	0.335	560	1380	0.5	0.5	3.232	A
2 - South	1 - A249 onslip (SB)			752				884				
	2 - B2005 - link	1381	345	187	1862	0.741	1380	565	2.6	2.8	7.445	A
	3 - A249 offslip (SB)	652	163	1567	507	1.286	506	0	35.2	71.6	359.348	F
	4 - Swale Way	745	186	591	955	0.781	745	1483	3.3	3.4	17.043	C
	5 - Grovehurst Road	810	203	835	858	0.944	801	501	8.8	11.0	52.025	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	792	198	485	1140	0.694	812	0	7.4	2.4	11.590	B
	2 - Grovehurst Road	401	100	1114	817	0.490	408	183	2.7	1.0	8.935	A
	3 - A249 onslip (NB)			1156				366				
	4 - B2005 - link	484	121	0	1674	0.289	485	1156	0.5	0.4	3.029	A
	1 - A249 onslip (SB)			651				747				

2 - South	2 - B2005 - link	1157	289	163	1877	0.616	1162	488	2.8	1.6	5.061	A
	3 - A249 offslip (SB)	532	133	1324	718	0.742	708	0	71.6	27.8	253.396	F
	4 - Swale Way	609	152	600	949	0.641	615	1432	3.4	1.8	10.959	B
	5 - Grovehurst Road	662	165	701	974	0.679	697	514	11.0	2.2	14.542	B

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	663	166	395	1209	0.549	668	0	2.4	1.2	6.709	A
	2 - Grovehurst Road	336	84	913	974	0.345	338	150	1.0	0.5	5.671	A
	3 - A249 onslip (NB)			952				298				
	4 - B2005 - link	395	99	0	1674	0.236	395	952	0.4	0.3	2.815	A
2 - South	1 - A249 onslip (SB)			528				613				
	2 - B2005 - link	953	238	131	1897	0.502	956	398	1.6	1.0	3.834	A
	3 - A249 offslip (SB)	446	111	1086	924	0.482	553	0	27.8	1.0	13.074	B
	4 - Swale Way	510	127	483	1019	0.500	513	1156	1.8	1.0	7.157	A
	5 - Grovehurst Road	554	139	582	1075	0.516	559	414	2.2	1.1	7.034	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.18	0.56	1.08	1.26	1.63			N/A	N/A
	2 - Grovehurst Road	0.51	0.51	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.97	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.88	0.05	0.47	1.88	2.80			N/A	N/A
	4 - Swale Way	0.94	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	1.03	0.53	1.03	1.37	1.37			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.09	0.05	0.63	5.57	8.68			N/A	N/A
	2 - Grovehurst Road	0.88	0.06	0.71	1.63	2.09			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.47	0.05	0.55	3.65	5.55			N/A	N/A
	3 - A249 offslip (SB)	2.23	0.04	0.40	5.98	11.14			N/A	N/A
	4 - Swale Way	1.53	0.06	0.89	3.55	5.04			N/A	N/A
	5 - Grovehurst Road	1.96	0.05	0.50	5.20	8.24			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	6.53	0.05	0.47	18.53	33.85			N/A	N/A
	2 - Grovehurst Road	2.48	0.03	0.31	3.37	12.13			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.49	0.03	0.25	0.49	0.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.63	0.03	0.28	2.63	4.92			N/A	N/A
	3 - A249 offslip (SB)	35.18	14.20	32.60	54.66	62.30			N/A	N/A
	4 - Swale Way	3.29	0.03	0.32	5.28	16.85			N/A	N/A
	5 - Grovehurst Road	8.76	0.09	2.10	24.74	37.56			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	7.41	0.04	0.36	16.50	40.70			N/A	N/A
	2 - Grovehurst Road	2.74	0.03	0.30	2.78	12.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.03	0.30	1.39	2.27			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.80	0.03	0.27	2.80	2.80			N/A	N/A
	3 - A249 offslip (SB)	71.64	38.26	68.76	101.44	112.26			N/A	N/A
	4 - Swale Way	3.41	0.03	0.29	3.41	11.53			N/A	N/A
	5 - Grovehurst Road	11.01	0.06	1.36	32.27	54.18			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.36	0.04	0.44	6.48	11.19			N/A	N/A
	2 - Grovehurst Road	0.98	0.05	0.60	1.98	2.90			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.41	0.00	0.00	0.41	0.41			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.63	0.10	1.23	3.21	4.28			N/A	N/A
	3 - A249 offslip (SB)	27.76	11.39	25.69	42.65	48.51			N/A	N/A
	4 - Swale Way	1.84	0.06	0.85	4.59	6.78			N/A	N/A
	5 - Grovehurst Road	2.21	0.04	0.39	5.85	11.10			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.24	0.03	0.31	2.25	6.31			N/A	N/A
	2 - Grovehurst Road	0.53	0.03	0.34	1.08	2.00			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.31	0.00	0.00	0.31	0.31			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.02	0.05	0.50	2.25	3.34			N/A	N/A
	3 - A249 offslip (SB)	0.95	0.03	0.26	0.95	0.95			N/A	N/A
	4 - Swale Way	1.02	0.04	0.36	2.53	4.63			N/A	N/A
	5 - Grovehurst Road	1.08	0.03	0.29	1.47	4.81			N/A	N/A

# 2024 + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	41.33	E
2	South	Standard Roundabout	1, 2, 3, 4, 5	339.29	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	884	100.000
	2 - Grovehurst Road		ONE HOUR	✓	235	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	481	100.000
	4 - Swale Way		ONE HOUR	✓	1252	100.000
	5 - Grovehurst Road		ONE HOUR	✓	595	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	183	0	701
		2 - Grovehurst Road	0	0	27	208
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	264	540	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	45	0	0	467	393
		3 - A249 offslip (SB)	1	27	0	198	255
		4 - Swale Way	662	431	0	0	159
		5 - Grovehurst Road	150	339	0	106	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	2	0	18
		2 - Grovehurst Road	0	0	0	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	3	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	9	0	0	26	2
		3 - A249 offslip (SB)	0	11	0	8	3
		4 - Swale Way	17	2	0	0	3
		5 - Grovehurst Road	1	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.00	77.50	20.7	75.3	F	811	1217
	2 - Grovehurst Road	0.35	7.51	0.5	2.4	A	216	323
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.42	3.61	0.7	1.5	A	682	1023
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.53	4.09	1.1	1.5	A	830	1245
	3 - A249 offslip (SB)	0.58	9.48	1.4	4.0	A	441	662
	4 - Swale Way	1.44	854.98	264.5	264.5	F	1149	1723
	5 - Grovehurst Road	0.77	17.85	3.2	15.9	C	546	819

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	666	166	591	1085	0.613	659	0	0.0	1.5	8.345	A
	2 - Grovehurst Road	177	44	920	1002	0.177	176	330	0.0	0.2	4.356	A
	3 - A249 onslip (NB)			679				417				
	4 - B2005 - link	593	148	0	1730	0.343	591	679	0.0	0.5	3.156	A
2 - South	1 - A249 onslip (SB)			670				635				
	2 - B2005 - link	676	169	79	1881	0.360	674	591	0.0	0.6	2.977	A
	3 - A249 offslip (SB)	362	91	753	1217	0.298	360	0	0.0	0.4	4.197	A
	4 - Swale Way	943	236	538	1120	0.842	924	575	0.0	4.7	17.012	C
	5 - Grovehurst Road	448	112	861	896	0.500	444	601	0.0	1.0	7.902	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	795	199	682	1017	0.781	788	0	1.5	3.3	15.225	C
	2 - Grovehurst Road	211	53	1082	872	0.242	211	387	0.2	0.3	5.442	A
	3 - A249 onslip (NB)			811				482				
	4 - B2005 - link	682	171	0	1730	0.394	682	811	0.5	0.6	3.432	A
2 - South	1 - A249 onslip (SB)			775				717				
	2 - B2005 - link	808	202	95	1872	0.432	807	680	0.6	0.8	3.381	A
	3 - A249 offslip (SB)	432	108	902	1082	0.399	431	0	0.4	0.7	5.522	A
	4 - Swale Way	1126	281	645	1049	1.073	1025	689	4.7	29.7	74.120	F
	5 - Grovehurst Road	535	134	960	819	0.653	532	710	1.0	1.8	12.397	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	973	243	733	979	0.994	927	0	3.3	14.9	47.945	E
	2 - Grovehurst Road	259	65	1228	754	0.343	258	433	0.3	0.5	7.245	A
	3 - A249 onslip (NB)			963				522				
	4 - B2005 - link	733	183	0	1730	0.424	733	963	0.6	0.7	3.612	A
2 - South	1 - A249 onslip (SB)			847				721				
	2 - B2005 - link	959	240	116	1859	0.516	958	731	0.8	1.1	3.989	A
	3 - A249 offslip (SB)	530	132	1074	928	0.571	527	0	0.7	1.3	8.923	A
	4 - Swale Way	1378	345	774	962	1.432	962	827	29.7	133.9	315.655	F
	5 - Grovehurst Road	655	164	918	852	0.769	650	817	1.8	3.1	17.384	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	973	243	734	978	0.995	950	0	14.9	20.7	77.496	F
	2 - Grovehurst Road	259	65	1246	738	0.351	259	438	0.5	0.5	7.507	A
	3 - A249 onslip (NB)			982				523				
	4 - B2005 - link	734	184	0	1730	0.424	734	982	0.7	0.7	3.614	A
2 - South	1 - A249 onslip (SB)			848				720				
	2 - B2005 - link	978	245	117	1859	0.526	978	731	1.1	1.1	4.088	A
	3 - A249 offslip (SB)	530	132	1095	909	0.583	529	0	1.3	1.4	9.480	A
	4 - Swale Way	1378	345	785	955	1.444	955	839	133.9	239.8	688.302	F
	5 - Grovehurst Road	655	164	913	856	0.766	655	827	3.1	3.2	17.848	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	795	199	688	1013	0.785	861	0	20.7	4.0	31.312	D
	2 - Grovehurst Road	211	53	1145	820	0.258	212	404	0.5	0.4	5.930	A
	3 - A249 onslip (NB)			871				486				
	4 - B2005 - link	687	172	0	1730	0.397	688	871	0.7	0.7	3.457	A
	1 - A249 onslip (SB)			782				723				



2 - South	2 - B2005 - link	869	217	96	1871	0.465	870	685	1.1	0.9	3.602	A
	3 - A249 offslip (SB)	432	108	966	1024	0.422	435	0	1.4	0.7	6.138	A
	4 - Swale Way	1126	281	677	1027	1.096	1027	724	239.8	264.5	854.976	F
	5 - Grovehurst Road	535	134	965	815	0.656	540	739	3.2	2.0	13.288	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	666	166	661	1033	0.644	674	0	4.0	1.9	10.264	B
	2 - Grovehurst Road	177	44	978	958	0.185	177	356	0.4	0.2	4.618	A
	3 - A249 onslip (NB)			692				464				
	4 - B2005 - link	660	165	0	1730	0.382	661	692	0.7	0.6	3.367	A
2 - South	1 - A249 onslip (SB)			739				735				
	2 - B2005 - link	689	172	80	1880	0.367	691	659	0.9	0.6	3.027	A
	3 - A249 offslip (SB)	362	91	771	1201	0.302	363	0	0.7	0.4	4.303	A
	4 - Swale Way	943	236	548	1113	0.847	1109	586	264.5	222.8	791.253	F
	5 - Grovehurst Road	448	112	1024	769	0.582	450	633	2.0	1.4	11.358	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.55	0.42	1.40	2.29	2.78			N/A	N/A
	2 - Grovehurst Road	0.21	0.00	0.00	0.21	0.21			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.56	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.42	0.00	0.00	0.42	0.42			N/A	N/A
	4 - Swale Way	4.71	0.03	0.29	4.71	17.89			N/A	N/A
	5 - Grovehurst Road	0.98	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.32	0.07	1.19	8.94	13.51			N/A	N/A
	2 - Grovehurst Road	0.32	0.00	0.00	0.32	0.32			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.65	0.22	0.94	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.76	0.10	0.85	1.41	1.48			N/A	N/A
	3 - A249 offslip (SB)	0.66	0.08	0.76	1.37	1.44			N/A	N/A
	4 - Swale Way	29.74	0.82	18.05	72.02	96.39			N/A	N/A
	5 - Grovehurst Road	1.82	0.09	1.20	3.94	5.47			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	14.89	0.35	8.44	36.47	49.33			N/A	N/A
	2 - Grovehurst Road	0.52	0.03	0.25	0.52	0.52			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.73	0.03	0.25	0.73	0.73			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.06	0.03	0.26	1.06	1.06			N/A	N/A
	3 - A249 offslip (SB)	1.30	0.03	0.26	1.30	1.30			N/A	N/A
	4 - Swale Way	133.93	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.09	0.03	0.32	5.08	15.93			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	20.67	0.26	9.99	53.90	75.31			N/A	N/A
	2 - Grovehurst Road	0.53	0.03	0.31	1.50	2.40			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.73	0.03	0.27	0.73	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.10	0.03	0.27	1.10	1.17			N/A	N/A
	3 - A249 offslip (SB)	1.37	0.03	0.28	1.37	4.00			N/A	N/A
	4 - Swale Way	239.85	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.16	0.03	0.28	3.16	9.59			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.02	0.04	0.42	11.03	20.79			N/A	N/A
	2 - Grovehurst Road	0.35	0.00	0.00	0.35	0.35			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.66	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.87	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.74	0.12	0.88	1.39	1.45			N/A	N/A
	4 - Swale Way	264.49	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.98	0.05	0.48	5.31	8.52			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.87	0.03	0.30	2.33	8.91			N/A	N/A
	2 - Grovehurst Road	0.23	0.00	0.00	0.23	0.23			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.62	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.58	0.10	0.83	1.37	1.43			N/A	N/A
	3 - A249 offslip (SB)	0.43	0.04	0.37	1.20	1.36			N/A	N/A
	4 - Swale Way	222.84	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.43	0.04	0.43	3.74	6.15			N/A	N/A

# 2024 + K3 Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	17.09	C
2	South	Standard Roundabout	1, 2, 3, 4, 5	63.21	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2024 + K3 Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	864	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	692	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	822
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	147	327	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	141	0	0	911	183
		3 - A249 offslip (SB)	1	18	0	377	174
		4 - Swale Way	389	226	0	0	77
		5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	7	0	18
		2 - Grovehurst Road	0	0	8	3
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	7	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	16	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	39	10	0	0	9
		5 - Grovehurst Road	1	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.87	23.91	6.0	30.7	C	793	1189
	2 - Grovehurst Road	0.70	17.33	2.3	9.2	C	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.31	3.15	0.5	1.9	A	437	655
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.74	7.39	2.7	5.4	A	1137	1705
	3 - A249 offslip (SB)	1.23	299.63	58.5	98.5	F	523	785
	4 - Swale Way	0.78	16.38	3.4	16.3	C	635	952
	5 - Grovehurst Road	0.81	21.80	3.9	19.5	C	561	841

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	650	163	355	1221	0.533	646	0	0.0	1.1	6.218	A
	2 - Grovehurst Road	331	83	860	1014	0.327	329	142	0.0	0.5	5.244	A
	3 - A249 onslip (NB)			925				264				
	4 - B2005 - link	356	89	0	1664	0.214	355	925	0.0	0.3	2.748	A
2 - South	1 - A249 onslip (SB)			485				551				
	2 - B2005 - link	927	232	129	1885	0.492	924	357	0.0	1.0	3.729	A
	3 - A249 offslip (SB)	429	107	1052	947	0.453	426	0	0.0	0.8	6.869	A
	4 - Swale Way	521	130	386	1064	0.490	517	1092	0.0	0.9	6.540	A
	5 - Grovehurst Road	460	115	579	1066	0.432	457	324	0.0	0.8	5.884	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	777	194	426	1167	0.666	773	0	1.1	1.9	9.080	A
	2 - Grovehurst Road	396	99	1030	877	0.451	394	170	0.5	0.8	7.440	A
	3 - A249 onslip (NB)			1108				316				
	4 - B2005 - link	427	107	0	1664	0.256	426	1108	0.3	0.3	2.909	A
2 - South	1 - A249 onslip (SB)			581				660				
	2 - B2005 - link	1110	278	154	1870	0.594	1108	427	1.0	1.4	4.717	A
	3 - A249 offslip (SB)	512	128	1262	763	0.671	508	0	0.8	2.0	13.846	B
	4 - Swale Way	622	156	463	1019	0.610	620	1308	0.9	1.5	8.956	A
	5 - Grovehurst Road	549	137	694	967	0.568	547	388	0.8	1.3	8.520	A

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	951	238	515	1100	0.865	937	0	1.9	5.5	20.571	C
	2 - Grovehurst Road	484	121	1247	703	0.689	479	205	0.8	2.1	15.761	C
	3 - A249 onslip (NB)			1344				382				
	4 - B2005 - link	515	129	0	1664	0.310	515	1344	0.3	0.4	3.134	A
2 - South	1 - A249 onslip (SB)			703				802				
	2 - B2005 - link	1347	337	187	1850	0.728	1342	516	1.4	2.6	7.028	A
	3 - A249 offslip (SB)	628	157	1529	531	1.181	518	0	2.0	29.3	126.540	F
	4 - Swale Way	762	190	528	981	0.776	755	1520	1.5	3.2	15.455	C
	5 - Grovehurst Road	673	168	842	841	0.800	663	441	1.3	3.6	19.356	C

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	951	238	520	1096	0.868	949	0	5.5	6.0	23.913	C
	2 - Grovehurst Road	484	121	1262	690	0.702	484	207	2.1	2.3	17.332	C
	3 - A249 onslip (NB)			1359				386				
	4 - B2005 - link	520	130	0	1664	0.313	520	1359	0.4	0.5	3.148	A
2 - South	1 - A249 onslip (SB)			710				811				
	2 - B2005 - link	1363	341	189	1848	0.737	1362	521	2.6	2.7	7.392	A
	3 - A249 offslip (SB)	628	157	1551	512	1.227	510	0	29.3	58.5	299.629	F
	4 - Swale Way	762	190	530	980	0.778	761	1532	3.2	3.4	16.381	C
	5 - Grovehurst Road	673	168	849	834	0.806	672	442	3.6	3.9	21.797	C

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	777	194	441	1156	0.672	792	0	6.0	2.1	10.303	B
	2 - Grovehurst Road	396	99	1058	855	0.463	401	175	2.3	0.9	8.031	A
	3 - A249 onslip (NB)			1132				327				
	4 - B2005 - link	441	110	0	1664	0.265	441	1132	0.5	0.4	2.947	A
	1 - A249 onslip (SB)			599				673				

2 - South	2 - B2005 - link	1135	284	157	1867	0.608	1140	441	2.7	1.6	4.979	A
	3 - A249 offslip (SB)	512	128	1297	733	0.699	721	0	58.5	6.4	169.516	F
	4 - Swale Way	622	156	543	972	0.640	628	1475	3.4	1.8	10.648	B
	5 - Grovehurst Road	549	137	712	953	0.576	559	459	3.9	1.4	9.365	A

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	650	163	362	1215	0.535	654	0	2.1	1.2	6.458	A
	2 - Grovehurst Road	331	83	872	1004	0.330	333	144	0.9	0.5	5.375	A
	3 - A249 onslip (NB)			936				268				
	4 - B2005 - link	361	90	0	1664	0.217	362	936	0.4	0.3	2.767	A
2 - South	1 - A249 onslip (SB)			492				559				
	2 - B2005 - link	939	235	130	1884	0.498	941	362	1.6	1.0	3.825	A
	3 - A249 offslip (SB)	429	107	1071	930	0.461	451	0	6.4	0.9	7.860	A
	4 - Swale Way	521	130	400	1056	0.493	524	1123	1.8	1.0	6.811	A
	5 - Grovehurst Road	460	115	588	1058	0.435	462	336	1.4	0.8	6.066	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.12	0.55	1.03	1.12	1.12			N/A	N/A
	2 - Grovehurst Road	0.48	0.00	0.00	0.48	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.96	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.82	0.05	0.57	1.58	2.08			N/A	N/A
	4 - Swale Way	0.95	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	0.75	0.55	1.00	1.40	1.45			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.94	0.05	0.63	5.03	7.80			N/A	N/A
	2 - Grovehurst Road	0.81	0.06	0.73	1.31	1.77			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.44	0.05	0.56	3.58	5.42			N/A	N/A
	3 - A249 offslip (SB)	1.95	0.04	0.39	5.18	9.67			N/A	N/A
	4 - Swale Way	1.53	0.06	0.89	3.54	5.02			N/A	N/A
	5 - Grovehurst Road	1.29	0.06	0.67	2.94	4.36			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	5.49	0.04	0.40	14.47	29.66			N/A	N/A
	2 - Grovehurst Road	2.10	0.03	0.29	2.10	8.82			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.60	0.03	0.28	2.60	4.81			N/A	N/A
	3 - A249 offslip (SB)	29.26	9.84	26.49	47.90	55.52			N/A	N/A
	4 - Swale Way	3.23	0.03	0.32	4.83	16.27			N/A	N/A
	5 - Grovehurst Road	3.61	0.03	0.34	7.70	19.53			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	5.98	0.03	0.33	9.43	30.65			N/A	N/A
	2 - Grovehurst Road	2.26	0.03	0.29	2.26	9.19			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.31	1.38	1.88			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.75	0.03	0.27	2.75	2.75			N/A	N/A
	3 - A249 offslip (SB)	58.55	27.05	55.31	87.55	98.51			N/A	N/A
	4 - Swale Way	3.36	0.03	0.29	3.36	10.77			N/A	N/A
	5 - Grovehurst Road	3.89	0.03	0.30	4.07	17.89			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.12	0.04	0.44	5.78	9.78			N/A	N/A
	2 - Grovehurst Road	0.88	0.06	0.67	1.65	2.19			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.57	0.10	1.19	3.07	4.11			N/A	N/A
	3 - A249 offslip (SB)	6.42	0.10	2.06	17.31	25.30			N/A	N/A
	4 - Swale Way	1.83	0.06	0.90	4.52	6.62			N/A	N/A
	5 - Grovehurst Road	1.39	0.05	0.47	3.53	5.54			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.17	0.03	0.32	2.42	5.94			N/A	N/A
	2 - Grovehurst Road	0.50	0.04	0.35	1.45	1.68			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.00	0.05	0.50	2.18	3.24			N/A	N/A
	3 - A249 offslip (SB)	0.87	0.03	0.26	0.87	0.87			N/A	N/A
	4 - Swale Way	0.99	0.04	0.36	2.45	4.49			N/A	N/A
	5 - Grovehurst Road	0.78	0.03	0.33	1.74	3.70			N/A	N/A

# 2024 + K3 Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	28.29	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	309.29	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2024 + K3 Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	828	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	443	100.000
	4 - Swale Way		ONE HOUR	✓	1279	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000



## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	648
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	262	522	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	42	0	0	480	322
		3 - A249 offslip (SB)	1	27	0	199	216
		4 - Swale Way	688	432	0	0	159
		5 - Grovehurst Road	110	318	0	106	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	1	0	22
		2 - Grovehurst Road	0	0	0	1
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	4	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	28	1
		3 - A249 offslip (SB)	0	11	0	8	4
		4 - Swale Way	19	3	0	0	3
		5 - Grovehurst Road	0	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.95	52.38	12.5	60.4	F	760	1140
	2 - Grovehurst Road	0.33	6.94	0.5	1.9	A	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.42	3.62	0.7	1.5	A	672	1008
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.51	3.99	1.0	1.5	A	781	1172
	3 - A249 offslip (SB)	0.52	8.08	1.1	3.7	A	407	610
	4 - Swale Way	1.38	732.25	233.1	233.1	F	1174	1760
	5 - Grovehurst Road	0.73	16.62	2.6	12.4	C	490	735

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	623	156	576	1068	0.584	618	0	0.0	1.4	7.912	A
	2 - Grovehurst Road	171	43	867	1037	0.165	170	327	0.0	0.2	4.150	A
	3 - A249 onslip (NB)			633				404				
	4 - B2005 - link	578	145	0	1719	0.336	576	633	0.0	0.5	3.145	A
2 - South	1 - A249 onslip (SB)			656				623				
	2 - B2005 - link	637	159	79	1854	0.343	635	577	0.0	0.5	2.947	A
	3 - A249 offslip (SB)	334	83	714	1236	0.270	332	0	0.0	0.4	3.976	A
	4 - Swale Way	963	241	457	1160	0.830	945	589	0.0	4.4	15.697	C
	5 - Grovehurst Road	402	101	880	873	0.460	399	522	0.0	0.8	7.535	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	744	186	670	999	0.745	739	0	1.4	2.8	13.568	B
	2 - Grovehurst Road	204	51	1024	908	0.225	204	385	0.2	0.3	5.112	A
	3 - A249 onslip (NB)			758				470				
	4 - B2005 - link	671	168	0	1719	0.390	670	758	0.5	0.6	3.431	A
2 - South	1 - A249 onslip (SB)			764				712				
	2 - B2005 - link	762	190	95	1845	0.413	761	669	0.5	0.7	3.320	A
	3 - A249 offslip (SB)	398	100	856	1107	0.360	397	0	0.4	0.6	5.067	A
	4 - Swale Way	1150	287	547	1100	1.045	1069	706	4.4	24.7	62.026	F
	5 - Grovehurst Road	480	120	999	780	0.615	477	617	0.8	1.5	11.774	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	912	228	724	959	0.951	882	0	2.8	10.2	37.265	E
	2 - Grovehurst Road	250	62	1172	783	0.319	249	434	0.3	0.5	6.739	A
	3 - A249 onslip (NB)			910				512				
	4 - B2005 - link	725	181	0	1719	0.422	724	910	0.6	0.7	3.620	A
2 - South	1 - A249 onslip (SB)			839				718				
	2 - B2005 - link	914	229	116	1832	0.499	913	723	0.7	1.0	3.910	A
	3 - A249 offslip (SB)	488	122	1029	950	0.513	486	0	0.6	1.0	7.719	A
	4 - Swale Way	1408	352	661	1025	1.373	1024	853	24.7	120.6	264.476	F
	5 - Grovehurst Road	588	147	973	801	0.734	584	713	1.5	2.6	16.243	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	912	228	725	958	0.951	902	0	10.2	12.5	52.384	F
	2 - Grovehurst Road	250	62	1189	768	0.325	250	439	0.5	0.5	6.943	A
	3 - A249 onslip (NB)			926				513				
	4 - B2005 - link	725	181	0	1719	0.422	725	926	0.7	0.7	3.623	A
2 - South	1 - A249 onslip (SB)			841				717				
	2 - B2005 - link	931	233	117	1832	0.508	931	724	1.0	1.0	3.994	A
	3 - A249 offslip (SB)	488	122	1048	933	0.523	488	0	1.0	1.1	8.078	A
	4 - Swale Way	1408	352	670	1020	1.381	1020	865	120.6	217.8	588.082	F
	5 - Grovehurst Road	588	147	970	804	0.732	588	720	2.6	2.6	16.621	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	744	186	682	990	0.752	781	0	12.5	3.2	19.834	C
	2 - Grovehurst Road	204	51	1065	873	0.234	205	398	0.5	0.3	5.394	A
	3 - A249 onslip (NB)			792				478				
	4 - B2005 - link	681	170	0	1719	0.396	682	792	0.7	0.7	3.471	A
	1 - A249 onslip (SB)			776				726				

2 - South	2 - B2005 - link	797	199	96	1844	0.432	798	680	1.0	0.8	3.445	A
	3 - A249 offslip (SB)	398	100	894	1072	0.372	400	0	1.1	0.6	5.375	A
	4 - Swale Way	1150	287	565	1089	1.056	1089	730	217.8	233.1	732.247	F
	5 - Grovehurst Road	480	120	1018	765	0.628	484	635	2.6	1.7	12.963	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	623	156	651	1013	0.616	630	0	3.2	1.6	9.551	A
	2 - Grovehurst Road	171	43	926	992	0.172	171	354	0.3	0.2	4.391	A
	3 - A249 onslip (NB)			644				454				
	4 - B2005 - link	651	163	0	1719	0.379	651	644	0.7	0.6	3.374	A
2 - South	1 - A249 onslip (SB)			730				735				
	2 - B2005 - link	647	162	80	1853	0.349	648	649	0.8	0.5	2.991	A
	3 - A249 offslip (SB)	334	83	729	1223	0.273	334	0	0.6	0.4	4.056	A
	4 - Swale Way	963	241	464	1155	0.834	1150	599	233.1	186.2	656.726	F
	5 - Grovehurst Road	402	101	1061	731	0.550	404	553	1.7	1.3	11.081	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.37	0.54	1.28	1.81	1.97			N/A	N/A
	2 - Grovehurst Road	0.20	0.00	0.00	0.20	0.20			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	4 - Swale Way	4.41	0.03	0.31	5.60	21.27			N/A	N/A
	5 - Grovehurst Road	0.84	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.77	0.06	1.02	7.38	11.18			N/A	N/A
	2 - Grovehurst Road	0.29	0.00	0.00	0.29	0.29			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.64	0.21	0.93	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.70	0.10	0.84	1.38	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.56	0.07	0.70	1.34	1.42			N/A	N/A
	4 - Swale Way	24.67	0.67	14.86	59.72	80.00			N/A	N/A
	5 - Grovehurst Road	1.55	0.09	1.15	3.10	4.20			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	10.16	0.10	3.04	28.26	41.97			N/A	N/A
	2 - Grovehurst Road	0.46	0.03	0.25	0.46	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.25	0.72	0.72			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.99	0.03	0.26	0.99	0.99			N/A	N/A
	3 - A249 offslip (SB)	1.04	0.03	0.26	1.04	1.04			N/A	N/A
	4 - Swale Way	120.62	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.59	0.03	0.31	3.17	12.37			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	12.49	0.07	1.35	36.69	60.37			N/A	N/A
	2 - Grovehurst Road	0.48	0.03	0.32	1.44	1.92			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.73	0.03	0.27	0.73	1.02			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.03	0.03	0.27	1.03	1.45			N/A	N/A
	3 - A249 offslip (SB)	1.08	0.03	0.28	1.08	3.73			N/A	N/A
	4 - Swale Way	217.77	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.65	0.03	0.28	2.65	6.79			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.24	0.04	0.41	8.85	16.50			N/A	N/A
	2 - Grovehurst Road	0.31	0.00	0.00	0.31	0.31			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.66	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.77	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.60	0.10	0.83	1.37	1.43			N/A	N/A
	4 - Swale Way	233.06	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.74	0.05	0.69	4.43	6.69			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.64	0.03	0.31	2.59	8.29			N/A	N/A
	2 - Grovehurst Road	0.21	0.00	0.00	0.21	0.21			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.54	0.54	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.38	0.03	0.30	0.90	1.20			N/A	N/A
	4 - Swale Way	186.24	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.25	0.05	0.46	3.09	4.87			N/A	N/A

# 2024 + K3 and WKN Operational, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	19.08	C
2	South	Standard Roundabout	1, 2, 3, 4, 5	70.37	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2024 + K3 and WKN Operational	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	874	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	570	100.000
	4 - Swale Way		ONE HOUR	✓	702	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From	1 - A249 offslip (NB)	0	42	0	832
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	147	327	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	141	0	0	921	183
		3 - A249 offslip (SB)	1	18	0	377	174
		4 - Swale Way	399	226	0	0	77
		5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From	1 - A249 offslip (NB)	0	7	0	19
		2 - Grovehurst Road	0	0	8	3
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	7	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From	1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	17	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	41	10	0	0	9
		5 - Grovehurst Road	1	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.89	27.05	6.8	36.8	D	802	1203
	2 - Grovehurst Road	0.72	18.61	2.4	10.3	C	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.31	3.15	0.5	1.9	A	437	655
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.75	7.74	2.9	5.8	A	1145	1718
	3 - A249 offslip (SB)	1.27	339.52	65.8	105.6	F	523	785
	4 - Swale Way	0.79	17.79	3.7	18.6	C	644	966
	5 - Grovehurst Road	0.82	24.03	4.3	21.2	C	561	841

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	658	164	355	1211	0.543	653	0	0.0	1.2	6.405	A
	2 - Grovehurst Road	331	83	867	1003	0.330	329	142	0.0	0.5	5.325	A
	3 - A249 onslip (NB)			932				264				
	4 - B2005 - link	356	89	0	1664	0.214	355	932	0.0	0.3	2.748	A
2 - South	1 - A249 onslip (SB)			485				558				
	2 - B2005 - link	934	234	129	1872	0.499	930	357	0.0	1.0	3.806	A
	3 - A249 offslip (SB)	429	107	1059	935	0.459	426	0	0.0	0.8	7.022	A
	4 - Swale Way	529	132	386	1053	0.502	525	1098	0.0	1.0	6.761	A
	5 - Grovehurst Road	460	115	587	1055	0.436	457	324	0.0	0.8	5.993	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	786	196	426	1157	0.679	782	0	1.2	2.0	9.508	A
	2 - Grovehurst Road	396	99	1039	865	0.458	394	170	0.5	0.8	7.632	A
	3 - A249 onslip (NB)			1116				316				
	4 - B2005 - link	426	107	0	1664	0.256	426	1116	0.3	0.3	2.909	A
2 - South	1 - A249 onslip (SB)			581				669				
	2 - B2005 - link	1118	280	154	1857	0.602	1116	427	1.0	1.5	4.848	A
	3 - A249 offslip (SB)	512	128	1270	750	0.683	508	0	0.8	2.1	14.578	B
	4 - Swale Way	631	158	462	1009	0.625	629	1316	1.0	1.6	9.399	A
	5 - Grovehurst Road	549	137	703	954	0.576	547	388	0.8	1.3	8.796	A

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	962	241	514	1091	0.882	946	0	2.0	6.1	22.577	C
	2 - Grovehurst Road	484	121	1255	690	0.703	479	205	0.8	2.2	16.666	C
	3 - A249 onslip (NB)			1352				382				
	4 - B2005 - link	514	129	0	1664	0.309	514	1352	0.3	0.4	3.131	A
2 - South	1 - A249 onslip (SB)			701				812				
	2 - B2005 - link	1354	339	186	1837	0.737	1350	515	1.5	2.7	7.306	A
	3 - A249 offslip (SB)	628	157	1536	517	1.214	506	0	2.1	32.5	141.159	F
	4 - Swale Way	773	193	523	974	0.793	765	1519	1.6	3.5	16.645	C
	5 - Grovehurst Road	673	168	851	825	0.815	662	437	1.3	3.9	20.894	C

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	962	241	520	1087	0.885	960	0	6.1	6.8	27.054	D
	2 - Grovehurst Road	484	121	1272	676	0.717	484	207	2.2	2.4	18.606	C
	3 - A249 onslip (NB)			1370				386				
	4 - B2005 - link	520	130	0	1664	0.312	520	1370	0.4	0.5	3.146	A
2 - South	1 - A249 onslip (SB)			709				822				
	2 - B2005 - link	1372	343	189	1836	0.748	1372	520	2.7	2.9	7.738	A
	3 - A249 offslip (SB)	628	157	1561	495	1.267	494	0	32.5	65.8	339.516	F
	4 - Swale Way	773	193	524	973	0.794	772	1531	3.5	3.7	17.787	C
	5 - Grovehurst Road	673	168	859	818	0.822	671	437	3.9	4.3	24.030	C

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	786	196	441	1146	0.686	804	0	6.8	2.3	11.046	B
	2 - Grovehurst Road	396	99	1070	840	0.471	402	175	2.4	0.9	8.327	A
	3 - A249 onslip (NB)			1144				327				
	4 - B2005 - link	441	110	0	1664	0.265	441	1144	0.5	0.4	2.945	A
	1 - A249 onslip (SB)			599				683				

2 - South	2 - B2005 - link	1147	287	158	1855	0.618	1152	441	2.9	1.6	5.155	A
	3 - A249 offslip (SB)	512	128	1309	716	0.716	705	0	65.8	17.7	216.862	F
	4 - Swale Way	631	158	538	965	0.654	638	1476	3.7	2.0	11.240	B
	5 - Grovehurst Road	549	137	722	939	0.585	561	454	4.3	1.4	9.788	A

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	658	164	363	1205	0.546	662	0	2.3	1.2	6.686	A
	2 - Grovehurst Road	331	83	881	992	0.334	333	144	0.9	0.5	5.474	A
	3 - A249 onslip (NB)			944				270				
	4 - B2005 - link	363	91	0	1664	0.218	363	944	0.4	0.3	2.768	A
2 - South	1 - A249 onslip (SB)			494				567				
	2 - B2005 - link	946	237	130	1871	0.506	949	363	1.6	1.0	3.912	A
	3 - A249 offslip (SB)	429	107	1079	918	0.468	496	0	17.7	0.9	10.002	B
	4 - Swale Way	529	132	415	1036	0.510	532	1160	2.0	1.1	7.185	A
	5 - Grovehurst Road	460	115	598	1045	0.440	463	349	1.4	0.8	6.203	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.17	0.56	1.06	1.17	1.56			N/A	N/A
	2 - Grovehurst Road	0.49	0.00	0.00	0.49	0.49			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.99	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.84	0.05	0.49	1.73	2.50			N/A	N/A
	4 - Swale Way	0.99	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	0.76	0.55	1.00	1.40	1.45			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.05	0.05	0.64	5.42	8.41			N/A	N/A
	2 - Grovehurst Road	0.83	0.06	0.72	1.43	1.86			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.49	0.05	0.54	3.74	5.71			N/A	N/A
	3 - A249 offslip (SB)	2.06	0.04	0.39	5.46	10.26			N/A	N/A
	4 - Swale Way	1.63	0.06	0.89	3.83	5.56			N/A	N/A
	5 - Grovehurst Road	1.33	0.05	0.65	3.10	4.63			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	6.14	0.04	0.44	17.07	32.35			N/A	N/A
	2 - Grovehurst Road	2.22	0.03	0.30	2.22	9.98			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.25	0.45	0.48			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.72	0.03	0.28	2.72	5.84			N/A	N/A
	3 - A249 offslip (SB)	32.47	12.32	29.85	51.41	58.96			N/A	N/A
	4 - Swale Way	3.53	0.03	0.33	6.34	18.60			N/A	N/A
	5 - Grovehurst Road	3.92	0.04	0.36	9.17	21.20			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker



1 - North	1 - A249 offslip (NB)	6.81	0.03	0.35	13.53	36.84			N/A	N/A
	2 - Grovehurst Road	2.42	0.03	0.29	2.42	10.32			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.45	0.03	0.31	1.38	1.88			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.89	0.03	0.27	2.89	2.89			N/A	N/A
	3 - A249 offslip (SB)	65.77	33.45	62.79	94.89	105.62			N/A	N/A
	4 - Swale Way	3.69	0.03	0.29	3.69	13.36			N/A	N/A
	5 - Grovehurst Road	4.27	0.03	0.31	5.66	20.82			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.26	0.04	0.43	6.17	10.69			N/A	N/A
	2 - Grovehurst Road	0.91	0.06	0.64	1.77	2.47			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.64	0.09	1.20	3.37	4.54			N/A	N/A
	3 - A249 offslip (SB)	17.65	3.94	15.07	31.43	37.50			N/A	N/A
	4 - Swale Way	1.95	0.06	0.82	4.96	7.48			N/A	N/A
	5 - Grovehurst Road	1.44	0.05	0.45	3.73	5.94			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.22	0.03	0.32	2.36	6.27			N/A	N/A
	2 - Grovehurst Road	0.51	0.03	0.35	1.47	1.79			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.03	0.05	0.48	2.36	3.54			N/A	N/A
	3 - A249 offslip (SB)	0.89	0.03	0.26	0.89	0.89			N/A	N/A
	4 - Swale Way	1.06	0.04	0.36	2.62	4.95			N/A	N/A
	5 - Grovehurst Road	0.80	0.03	0.32	1.70	3.85			N/A	N/A

# 2024 + K3 and WKN Operational, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	32.18	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	341.81	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2024 + K3 and WKN Operational	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	838	100.000
	2 - Grovehurst Road		ONE HOUR	✓	227	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	444	100.000
	4 - Swale Way		ONE HOUR	✓	1300	100.000
	5 - Grovehurst Road		ONE HOUR	✓	534	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	180	0	658
		2 - Grovehurst Road	0	0	27	200
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	262	523	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	42	0	0	490	322
		3 - A249 offslip (SB)	1	27	0	200	216
		4 - Swale Way	708	433	0	0	159
	5 - Grovehurst Road	110	318	0	106	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	1	0	23
		2 - Grovehurst Road	0	0	0	1
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	3	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	30	1
		3 - A249 offslip (SB)	0	11	0	8	4
		4 - Swale Way	20	3	0	0	3
	5 - Grovehurst Road	0	2	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.97	59.50	14.5	64.9	F	769	1153
	2 - Grovehurst Road	0.33	7.06	0.5	2.0	A	208	312
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.42	3.58	0.7	1.4	A	671	1006
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.52	4.11	1.1	1.5	A	787	1181
	3 - A249 offslip (SB)	0.53	8.36	1.1	3.8	A	407	611
	4 - Swale Way	1.41	804.56	257.9	257.9	F	1193	1789
	5 - Grovehurst Road	0.74	16.85	2.7	12.7	C	490	735

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	631	158	580	1060	0.595	625	0	0.0	1.4	8.178	A
	2 - Grovehurst Road	171	43	877	1028	0.166	170	328	0.0	0.2	4.194	A
	3 - A249 onslip (NB)			641				407				
	4 - B2005 - link	582	145	0	1730	0.336	580	641	0.0	0.5	3.125	A
2 - South	1 - A249 onslip (SB)			656				637				
	2 - B2005 - link	642	160	79	1834	0.350	639	577	0.0	0.5	3.009	A
	3 - A249 offslip (SB)	334	84	719	1225	0.273	333	0	0.0	0.4	4.028	A
	4 - Swale Way	979	245	455	1154	0.848	959	596	0.0	4.9	17.071	C
	5 - Grovehurst Road	402	101	894	858	0.469	399	520	0.0	0.9	7.779	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	753	188	670	995	0.757	747	0	1.4	2.9	14.214	B
	2 - Grovehurst Road	204	51	1033	899	0.227	204	384	0.2	0.3	5.176	A
	3 - A249 onslip (NB)			766				471				
	4 - B2005 - link	671	168	0	1730	0.388	670	766	0.5	0.6	3.394	A
2 - South	1 - A249 onslip (SB)			760				720				
	2 - B2005 - link	767	192	95	1825	0.421	767	665	0.5	0.7	3.400	A
	3 - A249 offslip (SB)	399	100	861	1094	0.365	398	0	0.4	0.6	5.168	A
	4 - Swale Way	1169	292	546	1095	1.067	1070	714	4.9	29.5	71.101	F
	5 - Grovehurst Road	480	120	1002	773	0.621	477	614	0.9	1.6	12.065	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	923	231	723	957	0.965	889	0	2.9	11.4	40.584	E
	2 - Grovehurst Road	250	62	1179	775	0.322	249	432	0.3	0.5	6.835	A
	3 - A249 onslip (NB)			917				511				
	4 - B2005 - link	723	181	0	1730	0.418	723	917	0.6	0.7	3.574	A
2 - South	1 - A249 onslip (SB)			833				722				
	2 - B2005 - link	918	229	116	1812	0.506	917	717	0.7	1.0	4.014	A
	3 - A249 offslip (SB)	489	122	1033	937	0.521	487	0	0.6	1.1	7.953	A
	4 - Swale Way	1431	358	658	1021	1.401	1021	861	29.5	132.2	293.937	F
	5 - Grovehurst Road	588	147	972	798	0.737	584	707	1.6	2.6	16.488	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	923	231	724	956	0.965	910	0	11.4	14.5	59.498	F
	2 - Grovehurst Road	250	62	1197	760	0.329	250	437	0.5	0.5	7.060	A
	3 - A249 onslip (NB)			935				512				
	4 - B2005 - link	724	181	0	1730	0.418	724	935	0.7	0.7	3.577	A
2 - South	1 - A249 onslip (SB)			835				721				
	2 - B2005 - link	936	234	117	1812	0.517	936	718	1.0	1.1	4.107	A
	3 - A249 offslip (SB)	489	122	1052	919	0.532	489	0	1.1	1.1	8.356	A
	4 - Swale Way	1431	358	667	1016	1.409	1015	874	132.2	236.1	641.497	F
	5 - Grovehurst Road	588	147	968	801	0.734	588	715	2.6	2.7	16.854	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	753	188	679	988	0.762	798	0	14.5	3.5	22.452	C
	2 - Grovehurst Road	204	51	1078	860	0.237	205	398	0.5	0.3	5.500	A
	3 - A249 onslip (NB)			807				477				
	4 - B2005 - link	678	170	0	1730	0.392	679	807	0.7	0.6	3.424	A
	1 - A249 onslip (SB)			769				730				

2 - South	2 - B2005 - link	809	202	96	1824	0.444	810	673	1.1	0.8	3.557	A
	3 - A249 offslip (SB)	399	100	906	1052	0.379	401	0	1.1	0.6	5.543	A
	4 - Swale Way	1169	292	566	1082	1.080	1082	742	236.1	257.9	804.559	F
	5 - Grovehurst Road	480	120	1015	763	0.629	484	633	2.7	1.8	13.058	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	631	158	648	1011	0.624	638	0	3.5	1.7	9.828	A
	2 - Grovehurst Road	171	43	933	985	0.173	171	353	0.3	0.2	4.425	A
	3 - A249 onslip (NB)			652				452				
	4 - B2005 - link	648	162	0	1730	0.374	648	652	0.6	0.6	3.326	A
2 - South	1 - A249 onslip (SB)			722				739				
	2 - B2005 - link	653	163	80	1833	0.356	654	642	0.8	0.6	3.056	A
	3 - A249 offslip (SB)	334	84	734	1211	0.276	335	0	0.6	0.4	4.115	A
	4 - Swale Way	979	245	463	1149	0.852	1145	606	257.9	216.4	746.281	F
	5 - Grovehurst Road	402	101	1058	728	0.552	404	550	1.8	1.3	11.179	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.44	0.53	1.33	1.90	2.26			N/A	N/A
	2 - Grovehurst Road	0.20	0.00	0.00	0.20	0.20			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.54	0.54	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	4 - Swale Way	4.92	0.03	0.30	4.92	20.76			N/A	N/A
	5 - Grovehurst Road	0.87	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.94	0.06	1.08	7.84	11.86			N/A	N/A
	2 - Grovehurst Road	0.29	0.00	0.00	0.29	0.29			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.63	0.21	0.93	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.72	0.10	0.84	1.39	1.46			N/A	N/A
	3 - A249 offslip (SB)	0.57	0.07	0.72	1.34	1.42			N/A	N/A
	4 - Swale Way	29.49	0.82	17.95	71.29	95.34			N/A	N/A
	5 - Grovehurst Road	1.59	0.09	1.17	3.21	4.34			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	11.40	0.14	4.45	30.67	44.10			N/A	N/A
	2 - Grovehurst Road	0.47	0.03	0.25	0.47	0.48			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.71	0.03	0.25	0.71	0.71			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.02	0.03	0.26	1.02	1.02			N/A	N/A
	3 - A249 offslip (SB)	1.07	0.03	0.26	1.07	1.07			N/A	N/A
	4 - Swale Way	132.15	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.63	0.03	0.31	3.36	12.68			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

1 - North	1 - A249 offslip (NB)	14.51	0.09	3.09	41.90	64.87			N/A	N/A
	2 - Grovehurst Road	0.49	0.03	0.32	1.45	1.97			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.27	0.72	1.09			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.06	0.03	0.27	1.06	1.36			N/A	N/A
	3 - A249 offslip (SB)	1.12	0.03	0.28	1.12	3.80			N/A	N/A
	4 - Swale Way	236.12	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	2.69	0.03	0.28	2.69	7.00			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.45	0.04	0.41	9.42	17.69			N/A	N/A
	2 - Grovehurst Road	0.31	0.00	0.00	0.31	0.31			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.65	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.80	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.62	0.10	0.84	1.37	1.43			N/A	N/A
	4 - Swale Way	257.86	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.76	0.05	0.63	4.51	6.88			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.71	0.03	0.31	2.49	8.47			N/A	N/A
	2 - Grovehurst Road	0.21	0.00	0.00	0.21	0.21			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.56	0.08	0.78	1.36	1.43			N/A	N/A
	3 - A249 offslip (SB)	0.38	0.03	0.31	0.99	1.25			N/A	N/A
	4 - Swale Way	216.41	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.26	0.05	0.45	3.16	5.00			N/A	N/A

# 2024 + K3 Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	26.13	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	95.88	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2024 + K3 Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	906	100.000
	2 - Grovehurst Road		ONE HOUR	✓	446	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	593	100.000
	4 - Swale Way		ONE HOUR	✓	693	100.000

5 - Grovehurst Road	ONE HOUR	✓	736	100.000
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## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	45	0	861
		2 - Grovehurst Road	0	0	25	421
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	151	366	0	

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	144	0	0	911	225
		3 - A249 offslip (SB)	1	18	0	377	197
		4 - Swale Way	390	226	0	0	77
	5 - Grovehurst Road	287	277	0	172	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	13	0	17
		2 - Grovehurst Road	0	0	8	4
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	6	0	

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	16	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	39	10	0	0	9
	5 - Grovehurst Road	1	1	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.93	38.67	10.0	53.6	E	831	1247
	2 - Grovehurst Road	0.78	24.54	3.2	15.8	C	409	614
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.34	3.23	0.5	2.3	A	476	714
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.76	8.03	3.1	6.7	A	1176	1764
	3 - A249 offslip (SB)	1.36	436.71	84.8	125.4	F	544	816
	4 - Swale Way	0.80	19.12	3.9	20.1	C	636	954
	5 - Grovehurst Road	0.97	65.49	14.2	61.0	F	675	1013



## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	682	171	387	1205	0.566	677	0	0.0	1.3	6.752	A
	2 - Grovehurst Road	336	84	917	966	0.348	334	147	0.0	0.5	5.674	A
	3 - A249 onslip (NB)			958				293				
	4 - B2005 - link	388	97	0	1674	0.232	387	958	0.0	0.3	2.794	A
2 - South	1 - A249 onslip (SB)			518				614				
	2 - B2005 - link	959	240	128	1886	0.509	955	389	0.0	1.0	3.851	A
	3 - A249 offslip (SB)	446	112	1083	921	0.485	443	0	0.0	0.9	7.475	A
	4 - Swale Way	522	130	436	1033	0.505	518	1089	0.0	1.0	6.933	A
	5 - Grovehurst Road	554	139	582	1068	0.519	550	372	0.0	1.1	6.894	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	814	204	464	1147	0.710	810	0	1.3	2.4	10.560	B
	2 - Grovehurst Road	401	100	1098	823	0.487	399	176	0.5	0.9	8.457	A
	3 - A249 onslip (NB)			1147				351				
	4 - B2005 - link	464	116	0	1674	0.277	464	1147	0.3	0.4	2.975	A
2 - South	1 - A249 onslip (SB)			619				735				
	2 - B2005 - link	1147	287	154	1870	0.614	1145	466	1.0	1.6	4.951	A
	3 - A249 offslip (SB)	533	133	1299	732	0.728	527	0	0.9	2.5	17.014	C
	4 - Swale Way	623	156	522	982	0.634	620	1304	1.0	1.7	9.864	A
	5 - Grovehurst Road	662	165	697	969	0.683	658	445	1.1	2.1	11.429	B

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	998	249	552	1080	0.923	973	0	2.4	8.4	28.775	D
	2 - Grovehurst Road	491	123	1316	652	0.753	484	209	0.9	2.8	20.555	C
	3 - A249 onslip (NB)			1382				418				
	4 - B2005 - link	552	138	0	1674	0.330	552	1382	0.4	0.5	3.208	A
2 - South	1 - A249 onslip (SB)			735				883				
	2 - B2005 - link	1382	346	181	1853	0.746	1377	554	1.6	2.8	7.478	A
	3 - A249 offslip (SB)	653	163	1558	506	1.291	498	0	2.5	41.1	176.441	F
	4 - Swale Way	763	191	578	949	0.804	755	1478	1.7	3.7	17.805	C
	5 - Grovehurst Road	810	203	842	843	0.961	777	491	2.1	10.5	41.790	E

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	998	249	561	1073	0.929	991	0	8.4	10.0	38.670	E
	2 - Grovehurst Road	491	123	1339	634	0.775	489	213	2.8	3.2	24.535	C
	3 - A249 onslip (NB)			1404				424				
	4 - B2005 - link	561	140	0	1674	0.335	561	1404	0.5	0.5	3.233	A
2 - South	1 - A249 onslip (SB)			749				898				
	2 - B2005 - link	1404	351	186	1850	0.759	1404	563	2.8	3.1	8.029	A
	3 - A249 offslip (SB)	653	163	1590	479	1.364	478	0	41.1	84.8	436.708	F
	4 - Swale Way	763	191	579	949	0.804	762	1489	3.7	3.9	19.116	C
	5 - Grovehurst Road	810	203	851	835	0.970	796	490	10.5	14.2	65.488	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	814	204	491	1126	0.723	844	0	10.0	2.7	13.927	B
	2 - Grovehurst Road	401	100	1149	783	0.512	409	185	3.2	1.1	9.832	A
	3 - A249 onslip (NB)			1188				371				
	4 - B2005 - link	491	123	0	1674	0.293	491	1188	0.5	0.4	3.046	A

2 - South	1 - A249 onslip (SB)			658				767				
	2 - B2005 - link	1189	297	166	1863	0.638	1194	493	3.1	1.8	5.427	A
	3 - A249 offslip (SB)	533	133	1360	679	0.785	672	0	84.8	50.2	351.697	F
	4 - Swale Way	623	156	589	943	0.661	631	1443	3.9	2.0	11.784	B
	5 - Grovehurst Road	662	165	716	953	0.694	709	503	14.2	2.4	17.425	C

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	682	171	400	1195	0.571	688	0	2.7	1.4	7.171	A
	2 - Grovehurst Road	336	84	937	951	0.353	338	151	1.1	0.6	5.894	A
	3 - A249 onslip (NB)			972				302				
	4 - B2005 - link	400	100	0	1674	0.239	400	972	0.4	0.3	2.829	A
2 - South	1 - A249 onslip (SB)			532				624				
	2 - B2005 - link	973	243	131	1884	0.516	976	401	1.8	1.1	3.976	A
	3 - A249 offslip (SB)	446	112	1106	900	0.496	643	0	50.2	1.0	32.763	D
	4 - Swale Way	522	130	516	986	0.529	525	1234	2.0	1.1	7.864	A
	5 - Grovehurst Road	554	139	597	1056	0.525	559	444	2.4	1.1	7.325	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.28	0.56	1.18	1.65	1.84			N/A	N/A
	2 - Grovehurst Road	0.53	0.53	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.03	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.93	0.04	0.42	2.16	3.48			N/A	N/A
	4 - Swale Way	1.00	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	1.06	0.50	1.05	1.25	1.64			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.36	0.05	0.67	6.36	9.95			N/A	N/A
	2 - Grovehurst Road	0.93	0.06	0.69	1.80	2.51			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.57	0.05	0.52	3.95	6.10			N/A	N/A
	3 - A249 offslip (SB)	2.50	0.04	0.40	6.78	12.58			N/A	N/A
	4 - Swale Way	1.68	0.06	0.91	3.98	5.82			N/A	N/A
	5 - Grovehurst Road	2.07	0.05	0.49	5.58	8.87			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	8.38	0.06	1.43	24.34	39.48			N/A	N/A
	2 - Grovehurst Road	2.79	0.03	0.32	5.12	14.72			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.49	0.03	0.25	0.49	0.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.84	0.03	0.28	2.84	6.72			N/A	N/A
	3 - A249 offslip (SB)	41.15	19.02	38.76	61.21	68.83			N/A	N/A
	4 - Swale Way	3.73	0.03	0.34	7.49	20.05			N/A	N/A
	5 - Grovehurst Road	10.52	0.14	4.14	28.15	40.39			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or	Probability of exactly reaching
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									exceeding marker	marker
1 - North	1 - A249 offslip (NB)	10.03	0.05	0.46	28.06	53.63			N/A	N/A
	2 - Grovehurst Road	3.19	0.03	0.31	4.47	15.77			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.03	0.30	1.38	2.28			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	3.06	0.03	0.27	3.06	3.06			N/A	N/A
	3 - A249 offslip (SB)	84.81	50.32	82.25	114.85	125.43			N/A	N/A
	4 - Swale Way	3.90	0.03	0.29	3.90	15.36			N/A	N/A
	5 - Grovehurst Road	14.20	0.10	3.78	40.36	61.01			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.73	0.04	0.43	7.57	13.49			N/A	N/A
	2 - Grovehurst Road	1.07	0.05	0.55	2.40	3.51			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.42	0.00	0.00	0.42	0.42			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.79	0.10	1.28	3.74	4.98			N/A	N/A
	3 - A249 offslip (SB)	50.21	29.92	48.53	67.45	73.59			N/A	N/A
	4 - Swale Way	2.01	0.05	0.70	5.26	8.07			N/A	N/A
	5 - Grovehurst Road	2.38	0.04	0.38	6.27	12.25			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.35	0.03	0.31	2.00	6.73			N/A	N/A
	2 - Grovehurst Road	0.55	0.03	0.33	1.14	2.36			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.32	0.00	0.00	0.32	0.32			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.08	0.05	0.47	2.54	3.83			N/A	N/A
	3 - A249 offslip (SB)	1.01	0.03	0.26	1.01	1.01			N/A	N/A
	4 - Swale Way	1.14	0.04	0.36	2.85	5.43			N/A	N/A
	5 - Grovehurst Road	1.12	0.03	0.29	1.29	4.66			N/A	N/A

# 2024 + K3 Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	53.17	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	407.43	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2024 + K3 Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	899	100.000
	2 - Grovehurst Road		ONE HOUR	✓	235	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	482	100.000
	4 - Swale Way		ONE HOUR	✓	1279	100.000

5 - Grovehurst Road	ONE HOUR	✓	595	100.000
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## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	183	0	716
		2 - Grovehurst Road	0	0	27	208
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	264	541	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	45	0	0	482	393
		3 - A249 offslip (SB)	1	27	0	199	255
		4 - Swale Way	688	432	0	0	159
		5 - Grovehurst Road	150	339	0	106	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	2	0	20
		2 - Grovehurst Road	0	0	0	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	0	3	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	9	0	0	29	2
		3 - A249 offslip (SB)	0	11	0	8	3
		4 - Swale Way	19	3	0	0	3
		5 - Grovehurst Road	1	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.02	99.19	28.0	83.2	F	825	1237
	2 - Grovehurst Road	0.36	7.70	0.5	2.5	A	216	323
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.42	3.59	0.7	1.5	A	676	1014
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.54	4.24	1.1	1.5	A	843	1264
	3 - A249 offslip (SB)	0.60	9.95	1.4	4.1	A	442	663
	4 - Swale Way	1.49	1016.81	303.7	303.7	F	1174	1760
	5 - Grovehurst Road	0.77	18.33	3.2	16.5	C	546	819

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	677	169	593	1068	0.634	670	0	0.0	1.7	8.912	A
	2 - Grovehurst Road	177	44	932	984	0.180	176	331	0.0	0.2	4.453	A
	3 - A249 onslip (NB)			689				419				
	4 - B2005 - link	595	149	0	1730	0.344	593	689	0.0	0.5	3.163	A
2 - South	1 - A249 onslip (SB)			670				652				
	2 - B2005 - link	686	172	79	1853	0.370	684	591	0.0	0.6	3.073	A
	3 - A249 offslip (SB)	363	91	763	1198	0.303	361	0	0.0	0.4	4.291	A
	4 - Swale Way	963	241	538	1105	0.872	940	586	0.0	5.7	19.744	C
	5 - Grovehurst Road	448	112	878	873	0.513	444	600	0.0	1.0	8.314	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	808	202	676	1007	0.803	800	0	1.7	3.7	16.783	C
	2 - Grovehurst Road	211	53	1092	855	0.247	211	385	0.2	0.3	5.587	A
	3 - A249 onslip (NB)			824				479				
	4 - B2005 - link	677	169	0	1730	0.391	676	824	0.5	0.6	3.415	A
2 - South	1 - A249 onslip (SB)			766				723				
	2 - B2005 - link	820	205	95	1844	0.445	819	671	0.6	0.8	3.509	A
	3 - A249 offslip (SB)	433	108	914	1060	0.409	432	0	0.4	0.7	5.721	A
	4 - Swale Way	1150	287	644	1035	1.111	1019	702	5.7	38.3	91.493	F
	5 - Grovehurst Road	535	134	958	810	0.661	532	705	1.0	1.9	12.781	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	990	247	727	969	1.021	930	0	3.7	18.6	56.558	F
	2 - Grovehurst Road	259	65	1229	741	0.349	258	428	0.3	0.5	7.433	A
	3 - A249 onslip (NB)			969				518				
	4 - B2005 - link	727	182	0	1730	0.420	727	969	0.6	0.7	3.590	A
2 - South	1 - A249 onslip (SB)			837				724				
	2 - B2005 - link	963	241	116	1831	0.526	962	722	0.8	1.1	4.135	A
	3 - A249 offslip (SB)	531	133	1078	911	0.583	528	0	0.7	1.4	9.340	A
	4 - Swale Way	1408	352	768	953	1.478	952	838	38.3	152.3	369.252	F
	5 - Grovehurst Road	655	164	912	846	0.774	650	809	1.9	3.2	17.827	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	990	247	728	969	1.022	952	0	18.6	28.0	99.192	F
	2 - Grovehurst Road	259	65	1248	726	0.356	259	433	0.5	0.5	7.698	A
	3 - A249 onslip (NB)			987				519				
	4 - B2005 - link	728	182	0	1730	0.421	728	987	0.7	0.7	3.592	A
2 - South	1 - A249 onslip (SB)			839				723				
	2 - B2005 - link	982	245	117	1831	0.536	982	722	1.1	1.1	4.238	A
	3 - A249 offslip (SB)	531	133	1098	892	0.595	530	0	1.4	1.4	9.947	A
	4 - Swale Way	1408	352	779	946	1.489	946	850	152.3	267.9	781.866	F
	5 - Grovehurst Road	655	164	907	850	0.771	655	817	3.2	3.2	18.328	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	808	202	678	1006	0.804	901	0	28.0	4.7	48.609	E
	2 - Grovehurst Road	211	53	1173	785	0.269	212	406	0.5	0.4	6.286	A
	3 - A249 onslip (NB)			905				480				
	4 - B2005 - link	677	169	0	1730	0.392	678	905	0.7	0.6	3.425	A

2 - South	1 - A249 onslip (SB)			768				723					
	2 - B2005 - link	904	226	96	1843	0.490		904	672	1.1	1.0	3.841	A
	3 - A249 offslip (SB)	433	108	1001	980	0.442		436	0	1.4	0.8	6.647	A
	4 - Swale Way	1150	287	687	1007	1.142		1007	750	267.9	303.7	1016.808	F
	5 - Grovehurst Road	535	134	951	815	0.656		540	742	3.2	2.0	13.304	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	677	169	652	1025	0.661	688	0	4.7	2.0	11.001	B
	2 - Grovehurst Road	177	44	986	943	0.188	177	354	0.4	0.2	4.705	A
	3 - A249 onslip (NB)			705				458				
	4 - B2005 - link	652	163	0	1730	0.377	652	705	0.6	0.6	3.339	A
2 - South	1 - A249 onslip (SB)			726				737				
	2 - B2005 - link	702	175	80	1852	0.379	703	646	1.0	0.6	3.136	A
	3 - A249 offslip (SB)	363	91	783	1180	0.308	364	0	0.8	0.4	4.424	A
	4 - Swale Way	963	241	549	1097	0.877	1094	599	303.7	271.0	945.996	F
	5 - Grovehurst Road	448	112	1013	766	0.585	450	629	2.0	1.4	11.487	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.69	0.32	1.48	2.70	3.27			N/A	N/A
	2 - Grovehurst Road	0.22	0.00	0.00	0.22	0.22			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.59	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.43	0.00	0.00	0.43	0.43			N/A	N/A
	4 - Swale Way	5.71	0.03	0.28	5.71	14.07			N/A	N/A
	5 - Grovehurst Road	1.03	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.73	0.07	1.37	10.00	14.94			N/A	N/A
	2 - Grovehurst Road	0.33	0.00	0.00	0.33	0.33			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.64	0.22	0.94	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.80	0.10	0.86	1.19	1.19			N/A	N/A
	3 - A249 offslip (SB)	0.68	0.08	0.77	1.38	1.46			N/A	N/A
	4 - Swale Way	38.33	0.84	22.53	94.54	127.56			N/A	N/A
	5 - Grovehurst Road	1.87	0.09	1.23	4.08	5.66			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	18.61	1.18	12.85	41.44	53.57			N/A	N/A
	2 - Grovehurst Road	0.53	0.03	0.25	0.53	0.53			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.25	0.72	0.72			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.10	0.03	0.26	1.10	1.10			N/A	N/A
	3 - A249 offslip (SB)	1.36	0.03	0.27	1.36	1.36			N/A	N/A
	4 - Swale Way	152.30	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.17	0.03	0.32	5.49	16.52			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or	Probability of exactly reaching
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									exceeding marker	marker
1 - North	1 - A249 offslip (NB)	28.00	1.48	19.02	63.87	83.23			N/A	N/A
	2 - Grovehurst Road	0.55	0.03	0.31	1.00	2.51			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.72	0.03	0.27	0.72	1.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.15	0.03	0.26	1.15	1.15			N/A	N/A
	3 - A249 offslip (SB)	1.44	0.03	0.28	1.44	4.14			N/A	N/A
	4 - Swale Way	267.93	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.24	0.03	0.29	3.24	10.26			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	4.71	0.04	0.44	13.13	24.29			N/A	N/A
	2 - Grovehurst Road	0.37	0.00	0.00	0.37	0.37			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.65	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.97	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.80	0.14	0.91	1.42	1.48			N/A	N/A
	4 - Swale Way	303.75	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.98	0.05	0.47	5.35	8.74			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.01	0.03	0.30	2.17	9.30			N/A	N/A
	2 - Grovehurst Road	0.23	0.00	0.00	0.23	0.23			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.61	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.61	0.11	0.86	1.37	1.44			N/A	N/A
	3 - A249 offslip (SB)	0.45	0.04	0.38	1.23	1.38			N/A	N/A
	4 - Swale Way	271.00	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.45	0.04	0.42	3.79	6.34			N/A	N/A



# 2024 + K3 and WKN Operational + Cumulative Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	30.15	D
2	South	Standard Roundabout	1, 2, 3, 4, 5	105.49	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2024 + K3 and WKN Operational + Cumulative Development	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	917	100.000
	2 - Grovehurst Road		ONE HOUR	✓	446	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	593	100.000
	4 - Swale Way		ONE HOUR	✓	704	100.000

5 - Grovehurst Road	ONE HOUR	✓	736	100.000
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## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	45	0	872
		2 - Grovehurst Road	0	0	25	421
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	151	366	0	

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	144	0	0	921	225
		3 - A249 offslip (SB)	1	18	0	377	197
		4 - Swale Way	401	226	0	0	77
	5 - Grovehurst Road	287	277	0	172	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	13	0	18
		2 - Grovehurst Road	0	0	8	4
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	4	6	0	

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	2	0	0	17	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	41	10	0	0	9
	5 - Grovehurst Road	1	1	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.95	45.25	11.9	60.3	E	841	1262
	2 - Grovehurst Road	0.79	26.73	3.5	17.8	D	409	614
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.33	3.23	0.5	2.3	A	476	714
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.77	8.40	3.2	7.8	A	1186	1778
	3 - A249 offslip (SB)	1.41	480.33	91.5	132.1	F	544	816
	4 - Swale Way	0.82	21.13	4.4	22.5	C	646	969
	5 - Grovehurst Road	0.99	78.32	17.4	65.8	F	675	1013

## Main Results for each time segment

## 07:15 - 07:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	690	173	387	1195	0.577	685	0	0.0	1.3	6.981	A
	2 - Grovehurst Road	336	84	925	955	0.352	334	147	0.0	0.5	5.773	A
	3 - A249 onslip (NB)			966				292				
	4 - B2005 - link	388	97	0	1674	0.232	387	966	0.0	0.3	2.794	A
2 - South	1 - A249 onslip (SB)			518				622				
	2 - B2005 - link	967	242	128	1873	0.516	962	389	0.0	1.1	3.934	A
	3 - A249 offslip (SB)	446	112	1091	909	0.491	443	0	0.0	1.0	7.667	A
	4 - Swale Way	530	133	437	1022	0.519	526	1097	0.0	1.1	7.194	A
	5 - Grovehurst Road	554	139	590	1056	0.525	550	372	0.0	1.1	7.055	A

## 07:30 - 07:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	824	206	464	1138	0.725	820	0	1.3	2.5	11.154	B
	2 - Grovehurst Road	401	100	1108	810	0.495	399	176	0.5	1.0	8.721	A
	3 - A249 onslip (NB)			1156				351				
	4 - B2005 - link	464	116	0	1674	0.277	464	1156	0.3	0.4	2.975	A
2 - South	1 - A249 onslip (SB)			619				745				
	2 - B2005 - link	1157	289	154	1858	0.622	1154	466	1.1	1.6	5.099	A
	3 - A249 offslip (SB)	533	133	1308	718	0.743	526	0	1.0	2.7	18.169	C
	4 - Swale Way	633	158	522	972	0.651	630	1312	1.1	1.8	10.422	B
	5 - Grovehurst Road	662	165	707	954	0.693	657	445	1.1	2.2	11.956	B

## 07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1010	252	549	1074	0.940	981	0	2.5	9.6	32.023	D
	2 - Grovehurst Road	491	123	1322	640	0.767	483	208	1.0	3.0	21.849	C
	3 - A249 onslip (NB)			1389				416				
	4 - B2005 - link	549	137	0	1674	0.328	549	1389	0.4	0.5	3.200	A
2 - South	1 - A249 onslip (SB)			731				892				
	2 - B2005 - link	1389	347	180	1842	0.754	1384	551	1.6	3.0	7.763	A
	3 - A249 offslip (SB)	653	163	1564	493	1.324	487	0	2.7	44.2	192.952	F
	4 - Swale Way	775	194	573	942	0.823	766	1477	1.8	4.1	19.417	C
	5 - Grovehurst Road	810	203	852	826	0.981	771	487	2.2	12.1	46.872	E

## 08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1010	252	558	1067	0.946	1000	0	9.6	11.9	45.251	E
	2 - Grovehurst Road	491	123	1346	621	0.791	489	212	3.0	3.5	26.725	D
	3 - A249 onslip (NB)			1413				422				
	4 - B2005 - link	558	140	0	1674	0.333	558	1413	0.5	0.5	3.225	A
2 - South	1 - A249 onslip (SB)			744				907				
	2 - B2005 - link	1413	353	184	1839	0.768	1412	560	3.0	3.2	8.397	A
	3 - A249 offslip (SB)	653	163	1597	464	1.407	464	0	44.2	91.5	480.326	F
	4 - Swale Way	775	194	573	942	0.823	774	1488	4.1	4.4	21.132	C
	5 - Grovehurst Road	810	203	862	818	0.991	789	485	12.1	17.4	78.317	F

## 08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	824	206	495	1114	0.740	860	0	11.9	3.0	15.944	C
	2 - Grovehurst Road	401	100	1168	763	0.526	410	187	3.5	1.1	10.473	B
	3 - A249 onslip (NB)			1205				373				
	4 - B2005 - link	495	124	0	1674	0.296	495	1205	0.5	0.4	3.054	A

2 - South	1 - A249 onslip (SB)			666				783				
	2 - B2005 - link	1206	302	169	1849	0.652	1211	497	3.2	1.9	5.691	A
	3 - A249 offslip (SB)	533	133	1380	655	0.814	648	0	91.5	62.8	408.849	F
	4 - Swale Way	633	158	583	937	0.676	642	1445	4.4	2.2	12.537	B
	5 - Grovehurst Road	662	165	727	937	0.706	721	497	17.4	2.5	20.960	C

## 08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	690	173	402	1184	0.583	697	0	3.0	1.4	7.483	A
	2 - Grovehurst Road	336	84	947	938	0.358	338	152	1.1	0.6	6.022	A
	3 - A249 onslip (NB)			982				304				
	4 - B2005 - link	402	100	0	1674	0.240	402	982	0.4	0.3	2.831	A
2 - South	1 - A249 onslip (SB)			534				633				
	2 - B2005 - link	982	245	131	1872	0.525	985	403	1.9	1.1	4.074	A
	3 - A249 offslip (SB)	446	112	1116	886	0.504	693	0	62.8	1.1	64.179	F
	4 - Swale Way	530	133	534	965	0.549	534	1275	2.2	1.2	8.416	A
	5 - Grovehurst Road	554	139	607	1042	0.532	560	461	2.5	1.2	7.552	A

## Queue Variation Results for each time segment

## 07:15 - 07:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.34	0.55	1.24	1.75	1.91			N/A	N/A
	2 - Grovehurst Road	0.54	0.54	1.00	1.40	1.45			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.06	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.95	0.04	0.40	2.32	3.83			N/A	N/A
	4 - Swale Way	1.06	0.55	1.00	1.40	1.45			N/A	N/A
	5 - Grovehurst Road	1.09	0.37	1.07	1.44	1.74			N/A	N/A

## 07:30 - 07:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.52	0.05	0.72	6.83	10.70			N/A	N/A
	2 - Grovehurst Road	0.96	0.06	0.68	1.88	2.69			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.63	0.05	0.52	4.14	6.44			N/A	N/A
	3 - A249 offslip (SB)	2.68	0.04	0.41	7.30	13.46			N/A	N/A
	4 - Swale Way	1.81	0.06	0.92	4.41	6.42			N/A	N/A
	5 - Grovehurst Road	2.17	0.05	0.49	5.86	9.40			N/A	N/A

## 07:45 - 08:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	9.62	0.08	2.01	27.52	42.43			N/A	N/A
	2 - Grovehurst Road	2.98	0.03	0.33	6.10	15.95			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.49	0.03	0.25	0.49	0.49			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	2.97	0.03	0.28	2.97	7.84			N/A	N/A
	3 - A249 offslip (SB)	44.25	21.54	41.94	64.63	72.29			N/A	N/A
	4 - Swale Way	4.15	0.04	0.35	9.44	22.53			N/A	N/A
	5 - Grovehurst Road	12.13	0.23	6.11	30.72	42.43			N/A	N/A

## 08:00 - 08:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or	Probability of exactly reaching
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									exceeding marker	marker
1 - North	1 - A249 offslip (NB)	11.93	0.06	1.16	34.91	60.27			N/A	N/A
	2 - Grovehurst Road	3.46	0.03	0.32	5.61	17.79			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.50	0.03	0.30	1.38	2.25			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	3.22	0.03	0.27	3.22	3.22			N/A	N/A
	3 - A249 offslip (SB)	91.53	56.56	89.09	121.66	132.12			N/A	N/A
	4 - Swale Way	4.36	0.03	0.30	4.36	19.13			N/A	N/A
	5 - Grovehurst Road	17.42	0.19	7.61	46.35	65.76			N/A	N/A

## 08:15 - 08:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.00	0.04	0.43	8.33	14.94			N/A	N/A
	2 - Grovehurst Road	1.13	0.05	0.54	2.61	3.83			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.42	0.00	0.00	0.42	0.42			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.91	0.10	1.31	4.02	5.50			N/A	N/A
	3 - A249 offslip (SB)	62.79	40.59	61.20	81.36	87.78			N/A	N/A
	4 - Swale Way	2.16	0.05	0.55	5.79	9.15			N/A	N/A
	5 - Grovehurst Road	2.54	0.04	0.38	6.66	13.20			N/A	N/A

## 08:30 - 08:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.43	0.03	0.30	1.90	6.91			N/A	N/A
	2 - Grovehurst Road	0.56	0.03	0.32	1.14	2.49			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.32	0.00	0.00	0.32	0.32			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.11	0.05	0.46	2.69	4.11			N/A	N/A
	3 - A249 offslip (SB)	1.06	0.03	0.26	1.06	1.06			N/A	N/A
	4 - Swale Way	1.24	0.04	0.36	3.05	6.01			N/A	N/A
	5 - Grovehurst Road	1.16	0.03	0.28	1.16	4.48			N/A	N/A

# 2024 + K3 and WKN Operational + Cumulative Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	60.62	F
2	South	Standard Roundabout	1, 2, 3, 4, 5	444.89	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2024 + K3 and WKN Operational + Cumulative Development	PM	ONE HOUR	16:15	17:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	909	100.000
	2 - Grovehurst Road		ONE HOUR	✓	235	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	482	100.000
	4 - Swale Way		ONE HOUR	✓	1300	100.000

5 - Grovehurst Road	ONE HOUR	✓	595	100.000
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## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	183	0	726
		2 - Grovehurst Road	0	0	27	208
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	264	542	0	

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	45	0	0	492	393
		3 - A249 offslip (SB)	1	27	0	199	255
		4 - Swale Way	708	433	0	0	159
	5 - Grovehurst Road	150	339	0	106	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	2	0	21
		2 - Grovehurst Road	0	0	0	2
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
	4 - B2005 - link	0	0	3	0	

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	9	0	0	30	2
		3 - A249 offslip (SB)	0	11	0	8	3
		4 - Swale Way	20	3	0	0	3
	5 - Grovehurst Road	1	2	0	4	0	

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	1.04	112.40	32.7	87.7	F	834	1251
	2 - Grovehurst Road	0.36	7.79	0.6	2.6	A	216	323
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.42	3.57	0.7	1.5	A	671	1006
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.54	4.31	1.2	1.5	A	853	1279
	3 - A249 offslip (SB)	0.60	10.21	1.5	4.2	B	442	663
	4 - Swale Way	1.52	1102.57	330.6	330.6	F	1193	1789
	5 - Grovehurst Road	0.78	18.61	3.3	16.8	C	546	819

## Main Results for each time segment

## 16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	684	171	593	1060	0.645	677	0	0.0	1.8	9.240	A
	2 - Grovehurst Road	177	44	940	974	0.182	176	331	0.0	0.2	4.509	A
	3 - A249 onslip (NB)			697				419				
	4 - B2005 - link	595	149	0	1730	0.344	593	697	0.0	0.5	3.162	A
2 - South	1 - A249 onslip (SB)			669				665				
	2 - B2005 - link	694	174	79	1842	0.377	692	590	0.0	0.6	3.122	A
	3 - A249 offslip (SB)	363	91	771	1187	0.306	361	0	0.0	0.4	4.349	A
	4 - Swale Way	979	245	538	1098	0.891	953	594	0.0	6.5	21.851	C
	5 - Grovehurst Road	448	112	890	858	0.522	444	600	0.0	1.1	8.595	A

## 16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	817	204	671	1004	0.814	808	0	1.8	4.0	17.679	C
	2 - Grovehurst Road	211	53	1097	846	0.250	211	382	0.2	0.3	5.668	A
	3 - A249 onslip (NB)			832				475				
	4 - B2005 - link	671	168	0	1730	0.388	671	832	0.5	0.6	3.397	A
2 - South	1 - A249 onslip (SB)			760				729				
	2 - B2005 - link	829	207	95	1833	0.452	828	666	0.6	0.8	3.579	A
	3 - A249 offslip (SB)	433	108	923	1047	0.414	432	0	0.4	0.7	5.843	A
	4 - Swale Way	1169	292	644	1029	1.136	1017	711	6.5	44.5	104.080	F
	5 - Grovehurst Road	535	134	958	805	0.664	532	703	1.1	1.9	12.985	B

## 16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1001	250	721	967	1.035	933	0	4.0	20.9	61.593	F
	2 - Grovehurst Road	259	65	1230	735	0.352	258	424	0.3	0.5	7.531	A
	3 - A249 onslip (NB)			974				514				
	4 - B2005 - link	721	180	0	1730	0.417	721	974	0.6	0.7	3.569	A
2 - South	1 - A249 onslip (SB)			832				728				
	2 - B2005 - link	968	242	116	1821	0.532	967	716	0.8	1.1	4.211	A
	3 - A249 offslip (SB)	531	133	1083	901	0.589	528	0	0.7	1.4	9.585	A
	4 - Swale Way	1431	358	765	949	1.508	949	845	44.5	165.2	406.738	F
	5 - Grovehurst Road	655	164	910	844	0.777	650	804	1.9	3.2	18.074	C

## 17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	1001	250	722	966	1.036	954	0	20.9	32.7	112.403	F
	2 - Grovehurst Road	259	65	1247	721	0.359	259	429	0.5	0.6	7.792	A
	3 - A249 onslip (NB)			991				515				
	4 - B2005 - link	722	181	0	1730	0.418	722	991	0.7	0.7	3.572	A
2 - South	1 - A249 onslip (SB)			833				727				
	2 - B2005 - link	986	247	117	1820	0.542	986	717	1.1	1.2	4.313	A
	3 - A249 offslip (SB)	531	133	1102	883	0.601	530	0	1.4	1.5	10.208	B
	4 - Swale Way	1431	358	776	942	1.519	942	857	165.2	287.5	845.742	F
	5 - Grovehurst Road	655	164	905	847	0.773	655	812	3.2	3.3	18.606	C

## 17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	817	204	670	1004	0.814	927	0	32.7	5.2	62.703	F
	2 - Grovehurst Road	211	53	1191	765	0.276	212	406	0.6	0.4	6.524	A
	3 - A249 onslip (NB)			928				475				
	4 - B2005 - link	669	167	0	1730	0.387	670	928	0.7	0.6	3.399	A



2 - South	1 - A249 onslip (SB)			760				725				
	2 - B2005 - link	928	232	96	1832	0.507	929	664	1.2	1.0	3.987	A
	3 - A249 offslip (SB)	433	108	1025	953	0.455	436	0	1.5	0.8	6.996	A
	4 - Swale Way	1169	292	693	996	1.173	996	767	287.5	330.6	1102.575	F
	5 - Grovehurst Road	535	134	945	816	0.656	540	745	3.3	2.0	13.295	B

## 17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - North	1 - A249 offslip (NB)	684	171	644	1023	0.669	697	0	5.2	2.1	11.444	B
	2 - Grovehurst Road	177	44	990	935	0.189	178	351	0.4	0.2	4.758	A
	3 - A249 onslip (NB)			714				454				
	4 - B2005 - link	644	161	0	1730	0.372	644	714	0.6	0.6	3.319	A
2 - South	1 - A249 onslip (SB)			719				741				
	2 - B2005 - link	712	178	80	1842	0.386	713	639	1.0	0.6	3.194	A
	3 - A249 offslip (SB)	363	91	793	1167	0.311	364	0	0.8	0.5	4.498	A
	4 - Swale Way	979	245	550	1090	0.898	1087	608	330.6	303.5	1050.242	F
	5 - Grovehurst Road	448	112	1010	764	0.586	450	627	2.0	1.5	11.552	B

## Queue Variation Results for each time segment

## 16:15 - 16:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	1.77	0.29	1.03	2.88	3.62			N/A	N/A
	2 - Grovehurst Road	0.22	0.00	0.00	0.22	0.22			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.52	0.52	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.60	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.44	0.00	0.00	0.44	0.44			N/A	N/A
	4 - Swale Way	6.54	0.03	0.28	6.54	10.69			N/A	N/A
	5 - Grovehurst Road	1.07	0.55	1.00	1.40	1.45			N/A	N/A

## 16:30 - 16:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	3.98	0.08	1.47	10.65	15.80			N/A	N/A
	2 - Grovehurst Road	0.33	0.00	0.00	0.33	0.33			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.63	0.21	0.93	1.39	1.44			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.82	0.10	0.87	1.39	1.39			N/A	N/A
	3 - A249 offslip (SB)	0.70	0.08	0.77	1.39	1.47			N/A	N/A
	4 - Swale Way	44.51	0.65	24.52	112.81	154.33			N/A	N/A
	5 - Grovehurst Road	1.90	0.09	1.24	4.17	5.75			N/A	N/A

## 16:45 - 17:00

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	20.91	1.51	15.52	44.30	56.10			N/A	N/A
	2 - Grovehurst Road	0.54	0.03	0.25	0.54	0.54			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.71	0.03	0.25	0.71	0.71			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.13	0.03	0.26	1.13	1.13			N/A	N/A
	3 - A249 offslip (SB)	1.40	0.03	0.27	1.40	1.49			N/A	N/A
	4 - Swale Way	165.22	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.21	0.03	0.32	5.71	16.83			N/A	N/A

## 17:00 - 17:15

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or	Probability of exactly reaching
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									exceeding marker	marker
1 - North	1 - A249 offslip (NB)	32.70	2.71	24.62	69.39	87.72			N/A	N/A
	2 - Grovehurst Road	0.55	0.03	0.31	1.50	2.56			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.71	0.03	0.27	0.71	1.08			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.17	0.03	0.26	1.17	1.17			N/A	N/A
	3 - A249 offslip (SB)	1.48	0.03	0.28	1.48	4.21			N/A	N/A
	4 - Swale Way	287.51	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	3.29	0.03	0.29	3.29	10.66			N/A	N/A

## 17:15 - 17:30

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	5.23	0.05	0.46	14.82	26.78			N/A	N/A
	2 - Grovehurst Road	0.39	0.00	0.00	0.39	0.39			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.63	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	1.04	0.55	1.00	1.40	1.45			N/A	N/A
	3 - A249 offslip (SB)	0.85	0.16	0.93	1.04	1.04			N/A	N/A
	4 - Swale Way	330.60	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.98	0.05	0.46	5.34	8.81			N/A	N/A

## 17:30 - 17:45

Junction	Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - North	1 - A249 offslip (NB)	2.09	0.03	0.30	2.10	9.53			N/A	N/A
	2 - Grovehurst Road	0.23	0.00	0.00	0.23	0.23			N/A	N/A
	3 - A249 onslip (NB)									
	4 - B2005 - link	0.60	0.55	1.00	1.40	1.45			N/A	N/A
2 - South	1 - A249 onslip (SB)									
	2 - B2005 - link	0.63	0.12	0.87	1.37	1.44			N/A	N/A
	3 - A249 offslip (SB)	0.45	0.04	0.39	1.24	1.39			N/A	N/A
	4 - Swale Way	303.52	>199	>199	>199	>199			N/A	N/A
	5 - Grovehurst Road	1.46	0.04	0.42	3.82	6.46			N/A	N/A

# 2031, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - North - 1 - A249 offslip (NB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 3 - A249 offslip (SB) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - South - 4 - Swale Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	North	Standard Roundabout	1, 2, 3, 4	14.06	B
2	South	Standard Roundabout	1, 2, 3, 4, 5	50.00	F

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	2031	AM	ONE HOUR	07:15	08:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - North	4 - B2005 - link	2	2	Queue limited	Normal	0	100.00	20.00
2 - South	2 - B2005 - link	1	4	Queue limited	Normal	0	100.00	20.00

### Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - North	1 - A249 offslip (NB)		ONE HOUR	✓	838	100.000
	2 - Grovehurst Road		ONE HOUR	✓	440	100.000
	3 - A249 onslip (NB)					
	4 - B2005 - link	✓				
2 - South	1 - A249 onslip (SB)					
	2 - B2005 - link	✓				
	3 - A249 offslip (SB)		ONE HOUR	✓	569	100.000
	4 - Swale Way		ONE HOUR	✓	676	100.000
	5 - Grovehurst Road		ONE HOUR	✓	611	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	42	0	796
		2 - Grovehurst Road	0	0	25	415
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	147	326	0

### Demand (Veh/hr)

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	141	0	0	885	183
		3 - A249 offslip (SB)	1	18	0	376	174
		4 - Swale Way	374	225	0	0	77
		5 - Grovehurst Road	206	233	0	172	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		1 - A249 offslip (NB)	2 - Grovehurst Road	3 - A249 onslip (NB)	4 - B2005 - link	
1 - North	From					
		1 - A249 offslip (NB)	0	7	0	17
		2 - Grovehurst Road	0	0	8	3
		3 - A249 onslip (NB)	Exit-only	Exit-only	Exit-only	Exit-only
		4 - B2005 - link	0	4	6	0

### Heavy Vehicle Percentages

		To					
		1 - A249 onslip (SB)	2 - B2005 - link	3 - A249 offslip (SB)	4 - Swale Way	5 - Grovehurst Road	
2 - South	From						
		1 - A249 onslip (SB)	Exit-only	Exit-only	Exit-only	Exit-only	
		2 - B2005 - link	0	0	0	15	6
		3 - A249 offslip (SB)	0	6	0	9	4
		4 - Swale Way	36	9	0	0	9
		5 - Grovehurst Road	1	2	0	4	0

## Results

### Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - North	1 - A249 offslip (NB)	0.83	19.20	4.7	24.1	C	769	1153
	2 - Grovehurst Road	0.67	15.10	2.0	7.3	C	404	606
	3 - A249 onslip (NB)							
	4 - B2005 - link	0.31	3.12	0.5	1.9	A	437	655
2 - South	1 - A249 onslip (SB)							
	2 - B2005 - link	0.72	6.83	2.5	4.8	A	1113	1670
	3 - A249 offslip (SB)	1.15	226.40	44.4	84.7	F	522	783
	4 - Swale Way	0.75	14.51	2.9	12.9	B	620	930
	5 - Grovehurst Road	0.78	18.91	3.4	16.7	C	561	841