

IMMINGHAM EASTERN RO-RO TERMINAL



Applicant's Issue Specific Hearing 3 Action Points for Deadline 5 – Appendix 2 - DTA
Report 23325-27 Annex D

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Annex D

Updated Technical Note 2

1.0 INTRODUCTION

- 1.1 This Technical Note has been produced by DTA Transportation to revise the previously submitted Junction Capacity Assessments carried out for the Transport Assessment [AS-008].
- 1.2 Following comments from GHD (commissioned by DFDS), DTA have reviewed the submitted junction models.
- 1.3 DTA previously engaged with National Highways, North Lincolnshire Council and North East Lincolnshire Council to agree which junctions should be considered alongside the proposed development. These same junctions have been reassessed in this note.
- 1.4 The operation of the individual junctions has been tested using the industry standard modelling tool of TRL Junctions. The revised input junction flows are provided in **Appendix TN2 A**.
- 1.5 Junctions models the performance of priority junctions and roundabouts in isolation from other junctions within the network. The arrival pattern is normally profiled using the ODTAB to replicate unconstrained demand although in practice where the individual junctions are within an urban network external constraints may make this unrealistic.
- 1.6 There are three key performance metrics which are output from the modelling on the Junctions software. These are the forecast queue length, the average delay (in seconds) and the ratio of flow to capacity (RFC). Convention is that the modelled period is sub-divided into 15-minute time segments and the highest (worst) results during the modelled period are reported. All of the modelling has been undertaken on the basis of "OD TAB" which assumes a ~15% uplift in flows in the middle two 15-minute period. In practise where junctions are approaching capacity the approach flow will tend to flatten / spread and therefore this is considered a very much worse case.

- 1.7 The assessment is particularly robust in assessing the impacts of the terminal for the reasons set out in Para 6.2 of DTA Report 23325-27 and the results should therefore be considered in that context.
- 1.8 The base test considers the peak daily throughput of the terminal at 1,800 units and uses the Port of Immingham profile AM flows from Table 7 of the TA [AS-008] and the Stena profile PM flows from Table 8 of the TA [AS-008], in line with the original TA assessments.
- 1.9 Where junctions which show an RFC of above 0.85 have been further tested with the Stena profile for both peaks and using the average flow from the site of 1440 units.
- 1.10 The baseline modelling has been checked against the queues in Annex BD2 of the TA [AS-008] and have been appropriately validated.

2.0 QUEENS ROAD/ LAPORTE ROAD PRIORITY JUNCTION

- 2.1 The Queens Road/ Laporte Road Priority Junction has been assessed using the PICADY module of Junctions 10. A summary of the results can be seen in **Table 1** below with the full output attached in **Appendix TN2 B**.

Table 1 - Queens Road/ Laporte Road Junction Assessment Summary

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Base						
Stream B-C	0.1	9.15	0.11	0.2	7.05	0.15
Stream B-A	1.0	13.50	0.48	0.2	11.99	0.14
Stream C-AB	0.1	6.13	0.07	0.1	6.71	0.06
2025 Base						
Stream B-C	0.2	9.34	0.11	0.2	7.13	0.15
Stream B-A	1.1	14.02	0.49	0.2	12.13	0.14
Stream C-AB	0.1	6.16	0.07	0.1	6.76	0.06
2025 Base + Committed						
Stream B-C	0.2	10.69	0.15	0.2	7.16	0.15
Stream B-A	1.2	14.59	0.51	0.2	11.95	0.14
Stream C-AB	0.1	6.67	0.08	0.1	6.82	0.06

2025 Base + Committed + Development						
Stream B-C	0.3	13.25	0.18	0.2	8.14	0.17
Stream B-A	1.8	20.96	0.62	0.4	13.40	0.22
Stream C-AB	0.1	702	0.09	0.1	7.35	0.07
2032 Base						
Stream B-C	0.2	9.68	0.12	0.2	7.25	0.16
Stream B-A	1.2	14.95	0.52	0.3	12.33	0.15
Stream C-AB	0.1	6.19	0.07	0.1	6.84	0.06
2032 Base + Committed						
Stream B-C	0.2	11.14	0.16	0.2	7.27	0.16
Stream B-A	1.3	15.58	0.53	0.3	12.40	0.15
Stream C-AB	0.1	6.71	0.09	0.1	6.90	0.06
2032 Base + Committed + Development						
Stream B-C	0.3	14.25	0.19	0.2	8.29	0.18
Stream B-A	2.1	23.08	0.65	0.4	13.73	0.23
Stream C-AB	0.1	7.07	0.09	0.1	7.44	0.07
NB: A – East Gate; B – Laporte Road; C – Queens Road						

2.2 As can be seen above, the revised results show a maximum RFC of 0.65 in the AM peak period for traffic movements from Laporte Road to East Gate. This indicates that the development traffic does not have a material impact on the Queens Road/ Laporte Road Priority Junction.

2.3 Previously a sensitivity test of 100% of development traffic using East Gate was undertaken. This showed a 0.01 increase in the RFC from the peak shown above. As can be seen above, the junction still has the capacity available for 100% of the development traffic to use it.

3.0 LAPORTE ROAD/ KILN LANE/ HOBSON WAY ROUNDABOUT

3.1 The Laporte Road/ Kiln Lane/ Hobson Way Roundabout has been assessed using the ARCADY module of Junctions 10. A summary of the results can be seen in **Table 2** below with the full output attached in **Appendix TN2 C**.

Table 2 - Laporte Road/ Kiln Lane/ Hobson Way Junction Assessment Comparison

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Base						
Air Products Access	0.0	0.00	0.00	0.0	0.00	0.00
Hobson Way	0.3	2.37	0.22	0.2	2.50	0.12
Kiln Lane	0.3	2.95	0.19	0.1	2.61	0.10
Laporte Road	0.1	2.46	0.05	0.4	2.59	0.27
2025 Base						
Air Products Access	0.0	0.00	0.00	0.0	0.00	0.00
Hobson Way	0.3	2.39	0.22	0.2	2.51	0.13
Kiln Lane	0.3	2.98	0.19	0.1	2.62	0.10
Laporte Road	0.1	2.47	0.05	0.4	2.62	0.28
2025 Base + Committed						
Air Products Access	0.0	0.00	0.00	0.0	0.00	0.00
Hobson Way	0.5	2.84	0.28	0.2	2.86	0.16
Kiln Lane	0.5	3.64	0.28	0.2	2.94	0.13
Laporte Road	0.1	2.39	0.06	0.5	2.64	0.29
2025 Base + Committed + Development						
Air Products Access	0.0	0.00	0.00	0.0	0.00	0.00
Hobson Way	0.5	2.89	0.30	0.3	2.84	0.18
Kiln Lane	0.5	3.69	0.28	0.2	2.98	0.14
Laporte Road	0.1	2.29	0.07	0.5	2.68	0.30
2032 Base						
Air Products Access	0.0	0.00	0.00	0.0	0.00	0.00
Hobson Way	0.3	2.42	0.23	0.2	2.54	0.13
Kiln Lane	0.3	3.03	0.20	0.2	2.64	0.11
Laporte Road	0.1	2.48	0.05	0.5	2.67	0.29
2032 Base + Committed						
Air Products Access	0.0	0.00	0.00	0.0	0.00	0.00
Hobson Way	0.5	2.88	0.29	0.3	2.90	0.17
Kiln Lane	0.5	3.70	0.29	0.2	2.95	0.14
Laporte Road	0.1	2.40	0.06	0.5	2.69	0.30
2032 Base + Committed + Development						
Air Products Access	0.0	0.00	0.00	0.0	0.00	0.00
Hobson Way	0.5	2.92	0.30	0.3	2.88	0.18
Kiln Lane	0.5	3.76	0.29	0.2	2.99	0.14
Laporte Road	0.1	2.30	0.08	0.5	2.74	0.32

3.2 As can be seen above, the revised results show a maximum RFC of 0.30 in the AM peak period for traffic movements on the Hobson Way arm. This indicates that the development traffic will still not have a material impact on the Laporte Road/ Kiln Lane/ Hobson Way Roundabout.

4.0 KINGS ROAD/ A1173 ROUNDABOUT

4.1 The Kings Road/ A1173 Roundabout has been assessed using the ARCADY module of Junctions 10. A summary of the results can be seen in **Table 3** below with the full output attached in **Appendix TN2 D**.

Table 3 - Kings Road/ A1173 Junction Assessment Comparison

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Base						
Kings Road NE	0.2	3.60	0.10	0.4	4.06	0.28
A1173	1.1	4.65	0.49	0.4	3.43	0.22
Kings Road NW	0.4	3.58	0.23	0.7	3.92	0.39
2025 Base						
Kings Road	0.2	3.63	0.10	0.4	4.15	0.28
A1173	1.2	4.80	0.51	0.4	3.47	0.23
A1173 Kings Road	0.4	3.62	0.24	0.8	4.00	0.40
2025 Base + Committed						
Kings Road	0.2	3.68	0.10	0.5	4.38	0.30
A1173	1.5	5.45	0.57	0.5	3.69	0.30
A1173 Kings Road	0.4	3.75	0.27	0.9	4.47	0.45
2025 Base + Committed + Development						
Kings Road	0.3	4.25	0.17	0.9	5.81	0.42
A1173	2.4	7.67	0.67	1.1	5.28	0.44
A1173 Kings Road	0.5	4.22	0.30	1.1	5.47	0.51
2032 Base						
Kings Road	0.2	3.67	0.10	0.5	4.31	0.30
A1173	1.3	5.05	0.53	0.4	3.53	0.24
A1173 Kings Road	0.4	3.70	0.25	0.8	4.14	0.42
2032 Base + Committed						
Kings Road	0.2	3.73	0.11	0.2	3.07	0.16
A1173	1.6	5.78	0.59	2.0	6.60	0.62
A1173 Kings Road	0.5	3.84	0.28	0.5	3.95	0.29
2032 Base + Committed + Development						
Kings Road	0.3	4.29	0.18	0.9	6.10	0.44
A1173	2.7	8.30	0.70	1.1	5.41	0.46
A1173 Kings Road	0.5	4.32	0.31	1.2	5.72	0.53

4.2 As can be seen above, the revised results show a maximum RFC of 0.70 in the AM peak period for traffic movements on the A1173 arm. This indicates that the

development traffic does not have a material impact on the Kings Road/ A1173 Roundabout.

5.0 A1173/ KILN LANE ROUNDABOUT

5.1 Base Test – Immingham AM

5.1.1 The A1173/ Kiln Lane Roundabout has been assessed using the ARCADY module of Junctions 10. A summary of the results can be seen in **Table 4** below with the full output attached in **Appendix TN2 E**.

Table 4 - A1173/ Kiln Lane Junction Assessment Summary

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Base						
Kiln Lane	0.3	3.55	0.16	0.9	4.94	0.46
Access	0.0	0.00	0.00	0.0	0.00	0.00
A1173 W	2.1	6.36	0.66	0.4	3.55	0.23
A1173 N	0.3	3.98	0.19	0.9	4.40	0.46
2025 Base						
Kiln Lane	0.3	3.58	0.16	1.0	5.12	0.47
Access	0.0	0.00	0.00	0.0	0.00	0.00
A1173 W	2.3	6.73	0.68	0.4	3.58	0.24
A1173 N	0.3	4.04	0.20	1.0	4.51	0.47
2025 Base + Committed						
Kiln Lane	0.5	4.30	0.24	1.4	6.65	0.55
Access	0.0	4.63	0.02	0.1	7.91	0.04
A1173 W	5.5	13.43	0.83	0.7	4.03	0.33
A1173 N	0.4	4.53	0.24	1.3	5.38	0.54
2025 Base + Committed + Development						
Kiln Lane	0.5	4.54	0.25	1.7	7.87	0.60
Access	0.0	4.92	0.03	0.1	9.25	0.05
A1173 W	13.2	29.92	0.93	1.3	5.42	0.46
A1173 N	0.6	5.37	0.32	2.0	7.04	0.63
2032 Base						
Kiln Lane	0.3	3.61	0.17	1.1	5.43	0.50
Access	0.0	0.00	0.00	0.0	0.00	0.00
A1173 W	2.6	7.41	0.71	0.5	3.63	0.25
A1173 N	0.4	4.14	0.21	1.1	4.70	0.49

2032 Base + Committed						
Kiln Lane	0.5	4.35	0.25	1.6	7.16	0.58
Access	0.0	4.68	0.03	0.1	8.34	0.05
A1173 W	6.7	16.12	0.86	0.7	4.10	0.34
A1173 N	0.4	4.65	0.25	1.4	5.65	0.56
2032 Base + Committed + Development						
Kiln Lane	0.6	4.60	0.26	1.9	8.60	0.63
Access	0.0	4.97	0.03	0.1	9.84	0.05
A1173 W	18.8	41.03	0.96	1.3	5.54	0.47
A1173 N	0.7	5.51	0.33	2.1	7.49	0.65

5.1.2 As can be seen above, the revised results show a maximum RFC of 0.96 in the AM peak period for traffic movements on the A1173 W arm. This is an increase from an RFC of 0.86 without the proposed development traffic.

5.1.3 The significant proportion of the reduction in capacity is related to committed development traffic rather than the development itself. In any event queuing is manageable and delay dissipates quickly after the central ~15% uplift central time period.

5.1.4 In the PM peak the junction is operating well within capacity.

5.2 Base Test – Stena AM

5.2.1 The A1173/ Kiln Lane Roundabout has also been assessed using the AM and PM flows for the Stena profile provided in Table 8 of the TA [AS-008]. A summary of the scenarios including the proposed development can be seen in **Table 5** below with the full output attached in **Appendix TN2 F**.

Table 5 - A1173/ Kiln Lane Stena AM Junction Assessment Summary

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2025 Base + Committed + Development						
Kiln Lane	0.5	4.48	0.25	1.7	7.87	0.60
Access	0.0	4.85	0.03	0.1	9.25	0.05
A1173 W	6.8	16.29	0.86	1.3	5.42	0.46
A1173 N	0.6	5.15	0.30	2.0	7.04	0.63

2032 Base + Committed + Development						
Kiln Lane	0.5	4.54	0.26	1.9	8.60	0.63
Access	0.0	4.90	0.03	0.1	9.84	0.05
A1173 W	8.6	20.23	0.89	1.3	5.54	0.47
A1173 N	0.6	5.30	0.31	2.1	7.49	0.65

5.2.2 As can be seen above, the results with the Stena profile shows a maximum RFC of 0.89 in the AM peak period along with a delay of 20.23 on the A1173 W arm. This is commensurate with the findings of the original Transport Assessment and demonstrates that in practise the development will have a minimal impact on junction operation.

5.3 Average Flow Test

5.3.1 The A1173/ Kiln Lane Roundabout has also been assessed using average flows from the IERRT facility. A summary of the scenarios including the proposed development can be seen in **Table 6** below with the full output attached in **Appendix TN2 G**.

Table 6 - A1173/ Kiln Lane Average Flow Junction Assessment Summary

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2025 Base + Committed + Development						
Kiln Lane	0.5	4.51	0.25	1.6	7.67	0.59
Access	0.0	4.88	0.03	0.1	9.03	0.05
A1173 W	11.3	25.87	0.92	1.2	5.18	0.44
A1173 N	0.6	5.23	0.31	1.8	6.76	0.61
2032 Base + Committed + Development						
Kiln Lane	0.6	4.56	0.26	1.9	8.37	0.62
Access	0.0	4.93	0.03	0.1	9.61	0.05
A1173 W	15.6	34.80	0.95	1.2	5.28	0.45
A1173 N	0.6	5.37	0.32	2.0	7.19	0.63

5.3.2 As can be seen above, the results with the average flows show a maximum RFC of 0.95 in the AM peak period along with a delay of 34.80 on the A1173 W arm. This shows a modest improvement from the assessment in **Table 4** above.

6.0 A1173/ SHIIP ROUNDABOUT

6.1 Base Test – Immingham AM

6.1.1 The A1173/ SHIIP Roundabout has been assessed using the ARCADY module of Junctions 10. A summary of the results can be seen in **Table 7** below with the full output attached in **Appendix TN2 H**.

Table 7 - A1173/ SHIIP Junction Assessment Comparison

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Base						
SHIIP Access S	0.0	0.00	0.00	0.0	0.00	0.00
A1173 W	1.2	3.71	0.53	0.3	2.69	0.19
SHIIP Access N	0.0	0.00	0.00	0.0	0.00	0.00
A1173 E	0.3	2.82	0.15	1.3	4.04	0.55
2025 Base						
SHIIP Access S	0.0	0.00	0.00	0.0	0.00	0.00
A1173 W	13	3.83	0.55	0.3	2.70	0.19
SHIIP Access N	0.0	0.00	0.00	0.0	0.00	0.00
A1173 E	0.3	2.84	0.16	1.4	4.18	0.57
2025 Base + Committed						
SHIIP Access S	0.0	2.98	0.02	0.3	5.11	0.20
A1173 W	1.6	4.40	0.59	0.7	3.37	0.33
SHIIP Access N	0.0	5.43	0.01	0.0	3.24	0.03
A1173 E	0.3	3.00	0.19	2.5	6.42	0.70
2025 Base + Committed + Development						
SHIIP Access S	0.0	3.12	0.02	0.3	5.86	0.22
A1173 W	2.3	5.64	0.67	1.2	4.25	0.44
SHIIP Access N	0.0	6.20	0.01	0.0	3.68	0.03
A1173 E	0.5	3.28	0.24	3.7	8.64	0.77
2032 Base						
SHIIP Access S	0.0	0.00	0.00	0.0	0.00	0.00
A1173 W	1.4	4.02	0.57	0.3	2.73	0.20
SHIIP Access N	0.0	0.00	0.00	0.0	0.00	0.00
A1173 E	0.3	2.86	0.17	1.5	4.40	0.59
2032 Base + Committed						
SHIIP Access S	0.1	3.33	0.07	0.3	5.33	0.21
A1173 W	3.9	8.16	0.78	0.7	3.40	0.34
SHIIP Access N	0.1	7.72	0.04	0.0	327	0.03
A1173 E	0.6	3.58	0.30	2.8	6.93	0.72

2032 Base + Committed + Development						
SHIIP Access S	0.1	3.51	0.08	0.3	6.14	0.23
A1173 W	6.7	12.96	0.86	1.2	4.31	0.44
SHIIP Access N	0.1	9.37	0.04	0.0	3.72	0.03
A1173 E	0.8	3.98	0.35	4.2	9.55	0.79

6.1.2 As can be seen above, the revised results show a maximum RFC of 0.86 in the AM peak period for traffic movements on the A1173 W arm. This is an increase from an RFC of 0.78 without the proposed development traffic.

6.1.3 In the PM peak the junction is operating well within capacity.

6.2 Base Test – Stena AM

6.2.1 The A1173/ SHIIP Roundabout has also been assessed using the AM and PM flows for the Stena profile provided in Table 8 of the TA [AS-008]. A summary of the scenarios including the proposed development can be seen in **Table 8** below with the full output attached in **Appendix TN2 I**.

Table 8 - A1173/ SHIIP Stena AM Junction Assessment Summary

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2025 Base + Committed + Development						
SHIIP Access S	0.0	3.09	0.02	0.3	5.86	0.22
A1173 W	1.8	4.71	0.61	1.2	4.25	0.44
SHIIP Access N	0.0	5.64	0.01	0.0	3.68	0.03
A1173 E	0.4	3.19	0.23	3.7	8.64	0.77
2032 Base + Committed + Development						
SHIIP Access S	0.1	3.46	0.07	0.3	6.14	0.23
A1173 W	4.5	9.18	0.80	1.2	4.31	0.44
SHIIP Access N	0.1	8.14	0.04	0.0	3.72	0.03
A1173 E	0.7	3.85	0.34	4.2	9.55	0.79

6.2.2 As can be seen above, the results with the Stena profile shows a maximum RFC of 0.80 in the AM peak period along with a delay of 9.18 on the A1173 W arm. This demonstrates that in practise the development will have a minimal impact on junction operation.

6.3 Average Flow Test

6.3.1 The A1173/ SHIIP Roundabout has also been assessed using average flows from the IERRT facility. A summary of the scenarios including the proposed development can be seen in **Table 9** below with the full output attached in **Appendix TN2 J**.

Table 9 - A1173/ SHIIP Average Flow Junction Assessment Summary

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2025 Base + Committed + Development						
SHIIP Access S	0.0	3.10	0.02	0.3	5.74	0.22
A1173 W	2.2	5.45	0.65	1.1	4.11	0.42
SHIIP Access N	0.0	6.08	0.01	0.0	3.61	0.03
A1173 E	0.4	3.23	0.23	3.5	8.28	0.76
2032 Base + Committed + Development						
SHIIP Access S	0.1	3.48	0.07	0.3	6.02	0.23
A1173 W	6.2	12.05	0.85	1.1	4.17	0.43
SHIIP Access N	0.1	910	0.04	0.0	3.64	0.03
A1173 E	0.7	3.91	0.34	4.0	9.14	0.78

6.3.2 As can be seen above, the results with the average flows show a maximum RFC of 0.85 in the AM peak period along with a delay of 12.05 on the A1173 W arm. This shows a modest improvement from the assessment in **Table 7** above.

7.0 A160/ HUMBER ROAD/ MANBY ROAD ROUNDABOUT (MANBY ROUNDABOUT)

7.1 Base Test – Immingham AM

7.1.1 The A160/ Humber Road/ Manby Road Roundabout has been assessed using the ARCADY module of Junctions 10. A summary of the results can be seen in **Table 10** below with the full output attached in **Appendix TN2 K**.

Table 10 - A160/ Humber Road/ Manby Road Junction Assessment Summary

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Base						
Humber Road	1.4	5.94	0.44	3.0	8.35	0.68
Manby Road	0.8	3.71	0.40	0.4	3.15	0.26
Port Service Access	0.1	12.22	0.03	0.0	8.68	0.03
A160	1.3	4.96	0.48	1.2	4.77	0.43
Conco Access	0.0	0.00	0.00	0.0	0.00	0.00
2025 Base						
Humber Road	1.5	6.18	0.46	3.5	9.34	0.71
Manby Road	0.9	3.89	0.43	0.5	3.25	0.27
Port Service Access	0.1	12.83	0.03	0.1	9.04	0.03
A160	1.4	5.24	0.50	1.3	4.97	0.45
Conco Access	0.0	0.00	0.00	0.0	0.00	0.00
2025 Base + Committed						
Humber Road	1.6	6.28	0.48	5.6	13.48	0.81
Manby Road	1.2	4.33	0.50	0.5	3.34	0.30
Port Service Access	0.1	14.36	0.03	0.1	9.57	0.03
A160	1.7	5.87	0.55	1.4	5.16	0.48
Conco Access	0.0	0.00	0.00	0.0	0.00	0.00
2025 Base + Committed + Development						
Humber Road	1.7	6.39	0.50	6.2	14.70	0.82
Manby Road	1.2	4.40	0.50	0.5	3.39	0.31
Port Service Access	0.1	14.63	0.03	0.1	9.76	0.03
A160	1.8	6.18	0.57	1.5	5.43	0.50
Conco Access	0.0	0.00	0.00	0.0	0.00	0.00
2032 Base						
Humber Road	1.8	6.62	0.49	4.5	11.44	0.76
Manby Road	1.0	4.21	0.46	0.5	3.43	0.30
Port Service Access	0.1	13.87	0.03	0.1	9.59	0.03
A160	1.6	5.73	0.54	1.4	5.28	0.48
Conco Access	0.0	0.00	0.00	0.0	2.99	0.00
2032 Base + Committed						
Humber Road	1.9	6.75	0.52	8.0	18.52	0.86
Manby Road	1.4	4.76	0.54	0.6	3.54	0.33
Port Service Access	0.1	15.68	0.03	0.1	10.19	0.04
A160	2.0	6.51	0.59	1.6	5.53	0.51
Conco Access	0.0	0.00	0.00	0.0	3.08	0.00

2032 Base + Committed + Development						
Humber Road	2.0	6.89	0.53	9.1	20.78	0.88
Manby Road	1.4	4.84	0.54	0.6	3.59	0.33
Port Service Access	0.1	16.01	0.04	0.1	10.41	0.04
A160	2.1	6.87	0.61	1.7	5.84	0.53
Conco Access	0.0	0.00	0.00	0.0	3.13	0.00

7.1.2 As can be seen above, the revised results show a maximum RFC of 0.88 in the PM peak period for traffic movements on the Humber Road arm. This is an increase from an RFC of 0.86 without the proposed development traffic.

7.1.3 The significant proportion of the reduction in capacity is related to committed development traffic rather than the development itself. In any event queuing is manageable (less than 8 PCUs across two lanes) and delay dissipates quickly after the central ~15% uplift central time period.

7.2 Average Flow Test

7.2.1 The A160/ Humber Road/ Manby Road Roundabout has also been assessed using average flows from the IERRT facility. A summary of the scenarios including the proposed development can be seen in **Table 11** below with the full output attached in **Appendix TN2 L**.

Table 11 - A160/ Humber Road/ Manby Road Average Flow Junction Assessment Summary

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2025 Base + Committed + Development						
Humber Road	1.7	6.38	0.50	6.1	14.56	0.82
Manby Road	1.2	4.39	0.50	0.5	3.38	0.31
Port Service Access	0.1	14.61	0.03	0.1	9.74	0.03
A160	1.8	6.14	0.57	1.5	5.39	0.50
Conco Access	0.0	0.00	0.00	0.0	0.00	0.00
2032 Base + Committed + Development						
Humber Road	2.0	6.87	0.53	8.9	20.52	0.88
Manby Road	1.4	4.83	0.54	0.6	3.58	0.33
Port Service Access	0.1	15.98	0.04	0.1	10.39	0.04
A160	2.1	6.83	0.61	1.7	5.79	0.53
Conco Access	0.0	0.00	0.00	0.0	3.12	0.00

7.2.2 As can be seen above, the results with the average flows show a maximum RFC of 0.88 in the PM peak period along with a delay of 20.52 on the Humber Road arm. This shows no material change from the assessment in **Table 10** above.

**8.0 A160/ ULCEBY ROAD/ HABROUGH ROAD/ EAST HALTON ROAD
ROUNDBAOUT (HABROUGH ROUNDABOUT)**

8.1 Base Test – Immingham AM

8.1.1 The A160/ Ulceby Road/ Habrough Road/ East Halton Road Roundabout has been assessed using the ARCADY module of Junctions 10. A summary of the results can be seen in **Table 12** below with the full output attached in **Appendix TN2 M**.

Table 12 - A160/ Ulceby Road/ Habrough Road/ E Halton Road Junction Assessment Summary

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Base						
A160 E	1.5	4.67	0.45	2.9	6.25	0.69
Habrough Road	0.6	6.09	0.37	0.2	5.66	0.17
A160 W	2.9	6.13	0.71	1.5	4.58	0.49
Ulceby Road	0.7	9.49	0.35	0.3	5.8	0.17
E Halton Road	0.9	8.96	0.41	0.7	5.64	0.40
2025 Base						
A160 E	1.6	4.89	0.47	3.4	7.08	0.72
Habrough Road	0.7	6.51	0.40	0.2	6.04	0.18
A160 W	3.5	7.01	0.75	1.7	4.83	0.51
Ulceby Road	0.8	10.62	0.39	0.3	6.13	0.18
E Halton Road	1.0	9.91	0.45	0.8	5.97	0.42
2025 Base + Committed						
A160 E	2.0	5.55	0.54	8.1	14.88	0.87
Habrough Road	0.8	7.62	0.44	0.3	8.24	0.24
A160 W	8.4	14.75	0.88	2.5	6.04	0.61
Ulceby Road	1.2	15.88	0.48	0.4	7.05	0.21
E Halton Road	1.6	13.92	0.56	1.4	8.23	0.56
2025 Base + Committed + Development						
A160 E	2.1	5.64	0.55	8.9	16.24	0.88
Habrough Road	0.8	7.74	0.44	0.3	8.44	0.24
A160 W	9.5	16.45	0.89	2.7	6.35	0.63
Ulceby Road	1.2	16.64	0.50	0.4	7.24	0.21
E Halton Road	1.6	14.52	0.57	1.4	8.56	0.57

2032 Base						
A160 E	1.8	5.28	0.51	4.5	8.86	0.78
Habrough Road	0.8	7.37	0.44	0.3	6.70	0.21
A160 W	4.8	9.04	0.80	1.9	5.27	0.55
Ulceby Road	1.0	12.96	0.45	0.4	6.54	0.20
E Halton Road	1.3	11.90	0.51	1.0	6.58	0.46
2032 Base + Committed						
A160 E	2.3	6.05	0.57	13.6	24.29	0.92
Habrough Road	1.0	8.80	0.49	0.4	9.50	0.28
A160 W	15.0	25.47	0.94	2.9	6.74	0.65
Ulceby Road	1.7	21.46	0.58	0.4	7.61	0.23
E Halton Road	2.1	18.15	0.64	1.7	9.49	0.60
2032 Base + Committed + Development						
A160 E	2.4	6.17	0.58	15.5	27.46	0.93
Habrough Road	1.0	8.97	0.49	0.4	9.74	0.28
A160 W	17.9	29.92	0.95	3.1	7.12	0.67
Ulceby Road	1.8	22.77	0.59	0.4	7.83	0.23
E Halton Road	2.3	19.11	0.65	1.7	9.94	0.61

8.1.2 As can be seen above, the revised results show a maximum RFC of 0.95 in the AM peak period for traffic movements on the A160 W arm. This is an increase from an RFC of 0.94 without the proposed development traffic but with committed development. This is not a material change as a result of the development.

8.1.3 The significant proportion of the reduction in capacity is related to committed development traffic rather than the development itself. In any event queuing is manageable and delay dissipates quickly after the central ~15% uplift central time period.

8.1.4 At this level of traffic there is no material change in the 2032 scenario without the development to the 2032 scenario with the development. The development therefore clearly has no material change on the operation of the junction.

8.2 Base Test – Stena AM

8.2.1 The A160/ Ulceby Road/ Habrough Road/ East Halton Road Roundabout has also been assessed using the AM and PM flows for the Stena profile provided in Table 8 of the

TA [AS-008]. A summary of the scenarios including the proposed development can be seen in **Table 13** below with the full output attached in **Appendix TN2 N**.

Table 13 - A160/ Ulceby Road/ Habrough Road/ E Halton Road Stena AM Junction Assessment Summary

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2025 Base + Committed + Development						
A160 E	2.1	5.62	0.55	8.9	16.24	0.88
Habrough Road	0.8	7.71	0.44	0.3	8.44	0.24
A160 W	8.7	15.18	0.88	2.7	6.35	0.63
Ulceby Road	1.2	16.09	0.49	0.4	7.24	0.21
E Halton Road	1.6	14.09	0.56	1.4	8.56	0.57
2032 Base + Committed + Development						
A160 E	2.4	6.14	0.58	15.5	27.46	0.93
Habrough Road	1.0	8.93	0.49	0.4	9.74	0.28
A160 W	15.7	26.56	0.94	3.1	7.12	0.67
Ulceby Road	1.7	21.81	0.58	0.4	7.83	0.23
E Halton Road	2.2	18.41	0.64	1.7	9.94	0.61

8.2.2 As can be seen above, the results with the Stena profile shows a maximum RFC of 0.94 in the AM peak period along with a delay of 26.56 on the A160 W arm. This shows an improvement from the assessment in **Table 12** above.

8.2.3 At this level of traffic there is no material change in the 2032 scenario without the development to the 2032 scenario with the development. The development therefore clearly has no material change on the operation of the junction.

8.3 Average Flow Test

8.3.1 The A160/ Ulceby Road/ Habrough Road/ East Halton Road Roundabout has also been assessed using the average flows from the IERRT facility. A summary of the scenarios including the proposed development can be seen in **Table 14** below with the full output attached in **Appendix TN2 O**.

Table 14 - A160/ Ulceby Road/ Habrough Road/ E Halton Road Average Flow Junction Assessment Summary

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2025 Base + Committed + Development						
A160 E	2.1	5.63	0.55	8.8	16.07	0.88
Habrough Road	0.8	7.72	0.44	0.3	8.41	0.24
A160 W	9.3	16.20	0.89	2.6	6.30	0.63
Ulceby Road	1.2	16.52	0.49	0.4	7.21	0.21
E Halton Road	1.6	14.43	0.57	1.4	8.52	0.56
2032 Base + Committed + Development						
A160 E	2.4	6.15	0.58	15.3	27.05	0.93
Habrough Road	1.0	8.94	0.49	0.4	9.71	0.28
A160 W	17.4	29.12	0.95	3.1	7.06	0.67
Ulceby Road	1.8	22.59	0.59	0.4	7.80	0.23
E Halton Road	2.2	18.98	0.65	1.7	9.87	0.61

8.3.2 As can be seen above, the results with the average flows show a maximum RFC of 0.95 in the AM peak period along with a delay of 29.12 on the A160 W arm. This shows no material change from the assessment in **Table 12** above.

8.3.3 At this level of traffic there is no material change in the 2032 scenario without the development to the 2032 scenario with the development. The development therefore clearly has no material change on the operation of the junction.

9.0 A180/ A1173 ROUNDABOUT (STALLINGBOROUGH INTERCHANGE)

9.1 The A180/ A1173 Roundabout has been assessed using the ARCADY module of Junctions 10. A summary of the results can be seen in **Table 15** below with the full output attached in **Appendix TN2 P**.

Table 15 - A180/ A1173 Junction Assessment Comparison

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Base						
A1173 N	0.2	2.00	0.11	0.8	2.35	0.42
A180 E	0.4	1.90	0.29	0.2	2.11	0.19
A1173 S	0.3	2.78	0.24	0.1	2.09	0.10
A180 W	0.4	3.13	0.23	0.2	2.34	0.11

2025 Base						
A1173 N	0.2	2.01	0.12	0.8	2.40	0.43
A180 E	0.4	1.93	0.30	0.3	2.14	0.20
A1173 S	0.3	2.85	0.25	0.1	2.11	0.10
A180 W	0.4	3.22	0.24	0.2	2.36	0.11
2025 Base + Committed						
A1173 N	0.4	2.34	0.20	1.3	3.20	0.55
A180 E	0.8	2.59	0.42	0.5	2.74	0.30
A1173 S	0.6	4.11	0.39	0.2	2.46	0.16
A180 W	0.9	5.24	0.41	0.4	2.81	0.20
2025 Base + Committed + Development						
A1173 N	0.5	2.51	0.23	1.7	3.74	0.60
A180 E	0.9	2.85	0.45	0.5	3.07	0.32
A1173 S	0.7	4.57	0.42	0.2	2.74	0.17
A180 W	1.5	7.00	0.53	0.7	3.45	0.30
2032 Base						
A1173 N	0.2	2.03	0.12	0.9	2.49	0.45
A180 E	0.5	1.97	0.31	0.3	2.20	0.21
A1173 S	0.4	2.96	0.27	0.1	2.15	0.11
A180 W	0.4	3.37	0.25	0.2	2.39	0.12
2032 Base + Committed						
A1173 N	0.4	2.37	0.20	1.5	3.36	0.57
A180 E	0.8	2.67	0.44	0.5	2.83	0.31
A1173 S	0.7	4.33	0.41	0.2	2.50	0.16
A180 W	1.0	5.58	0.43	0.4	2.85	0.21
2032 Base + Committed + Development						
A1173 N	0.5	2.55	0.24	1.9	3.95	0.62
A180 E	0.9	2.94	0.46	0.5	3.18	0.34
A1173 S	0.8	4.84	0.44	0.2	2.80	0.18
A180 W	1.7	7.57	0.55	0.7	3.51	0.31

9.2 As can be seen above, the revised results show a maximum RFC of 0.62 in the PM peak period for traffic movements on the A1173 N arm. This indicates that the development traffic will not have a material impact on the A180/ A1173 Roundabout.

9.3 At this level of traffic there is no material change in the 2032 scenario without the development to the 2032 scenario with the development. The development therefore clearly has no material change on the operation of the junction.

10.0 A160/ A180 ROUNDABOUT (BROCKLESBY INTERCHANGE)

10.1 Base Test – Immingham AM

10.1.1 The A160/ A180 Roundabout has been assessed using the ARCADY module of Junctions 10. A summary of the results can be seen in **Table 16** below with the full output attached in **Appendix TN2 Q**.

Table 16 - A160/ A180 Junction Assessment Summary

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Base						
A160	1.2	3.11	0.42	1.2	2.75	0.48
A180 E	1.6	11.72	0.62	0.3	6.02	0.21
A180 W	0.0	1.57	0.00	0.0	0.00	0.00
2025 Base						
A160	1.2	3.17	0.43	1.3	2.83	0.50
A180 E	1.9	13.34	0.65	0.3	6.30	0.22
A180 W	0.0	1.58	0.00	0.0	0.00	0.00
2025 Base + Committed						
A160	1.5	3.47	0.49	2.0	3.72	0.62
A180 E	4.2	28.30	0.81	0.5	10.15	0.34
A180 W	0.0	1.61	0.00	0.0	0.00	0.00
2025 Base + Committed + Development						
A160	1.5	3.53	0.49	2.1	3.81	0.63
A180 E	4.5	30.82	0.83	0.6	10.60	0.35
A180 W	0.0	1.61	0.00	0.0	0.00	0.00
2032 Base						
A160	1.3	3.29	0.45	1.4	2.96	0.52
A180 E	2.5	17.15	0.72	0.4	6.80	0.25
A180 W	0.0	1.60	0.00	0.0	0.00	0.00
2032 Base + Committed						
A160	1.6	3.61	0.51	2.3	3.96	0.64
A180 E	7.1	47.04	0.89	0.6	11.36	0.37
A180 W	0.0	1.63	0.00	0.0	0.00	0.00
2032 Base + Committed + Development						
A160	1.7	3.67	0.51	2.3	4.05	0.65
A180 E	8.0	53.33	0.91	0.7	11.87	0.38
A180 W	0.0	1.63	0.00	0.0	0.00	0.00

10.1.2 As can be seen above, the revised results show a maximum RFC of 0.91 in the AM peak period for traffic movements on the A180 E arm. This is an increase from an RFC of 0.89 without the proposed development traffic.

10.2 Base Test – Stena AM

10.2.1 The A160/ A180 Roundabout has also been assessed using the AM and PM flows for the Stena profile provided in Table 8 of the TA [AS-008]. A summary of the scenarios including the proposed development can be seen in **Table 17** below with the full output attached in **Appendix TN2 R**.

Table 17 - A160/ A180 Stena AM Junction Assessment Summary

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2025 Base + Committed + Development						
A160	1.5	3.52	0.49	2.1	3.81	0.63
A180 E	4.4	30.15	0.82	0.6	10.60	0.35
A180 W	0.0	1.61	0.00	0.0	0.00	0.00
2032 Base + Committed + Development						
A160	1.7	3.66	0.51	2.3	4.05	0.65
A180 E	7.8	51.75	0.91	0.7	11.87	0.38
A180 W	0.0	1.63	0.00	0.0	0.00	0.00

10.2.2 As can be seen above, the results with the Stena profile shows a maximum RFC of 0.91 in the AM peak period along with a delay of 51.75 on the A180 E arm. This shows an improvement from the assessment in **Table 16** above.

10.2.3 This clearly demonstrates that the impact of development traffic, at any level has no material impact on junction operation.

10.3 Average Flow Test

10.3.1 The A160/ A180 Roundabout has also been assessed using the average flows from the IERRT assessment. A summary of the scenarios including the proposed development can be seen in **Table 18** below with the full output attached in **Appendix TN2 S**.

Table 18 - A160/ A180 Average Flow Junction Assessment Summary

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2025 Base + Committed + Development						
A160	1.5	3.52	0.49	2.1	3.79	0.63
A180 E	4.5	30.47	0.83	0.6	10.54	0.35
A180 W	0.0	1.61	0.00	0.0	0.00	0.00
2032 Base + Committed + Development						
A160	1.7	3.67	0.51	2.3	4.04	0.65
A180 E	7.9	52.52	0.91	0.7	11.78	0.38
A180 W	0.0	1.63	0.00	0.0	0.00	0.00

10.3.2 As can be seen above, the results with the average flows show a maximum RFC of 0.91 in the AM peak period along with a delay of 52.52 on the A180 E arm. This shows an improvement from the assessment in **Table 16** above.

10.3.3 At this level of traffic there is no material change in the 2032 scenario without the development to the 2032 scenario with the development. The development therefore clearly has no material change on the operation of the junction.

11.0 SUMMARY

11.1 The previous conclusions can therefore be maintained that no mitigation measures are required at these locations as a result of the development proposals.

Appendix TN2 A
Input Junction Flows

Queens Road/ Laporte Road

North East Lincolnshire 001
2021-2025 2021-2032

AM	1.0298	1.0773
PM	1.0291	1.075

Baseline

Veh AM (7-8)

	East Gate	Laporte Road	Queens Road	PM (16-17)	East Gate	Laporte Road	Queens Road
East Gate	0	28	53	East Gate	0	235	149
Laporte Road	212	0	41	Laporte Road	39	0	78
Queens Road	215	38	0	Queens Road	39	29	0

HGVs AM

	East Gate	Laporte Road	Queens Road	PM	East Gate	Laporte Road	Queens Road
East Gate	0	14	37	East Gate	0	44	29
Laporte Road	31	0	9	Laporte Road	19	0	7
Queens Road	41	5	0	Queens Road	23	3	0

PCUs AM

	East Gate	Laporte Road	Queens Road	PM	East Gate	Laporte Road	Queens Road
East Gate	0	46	101	East Gate	0	292	187
Laporte Road	252	0	53	Laporte Road	64	0	87
Queens Road	268	45	0	Queens Road	69	33	0

Committed Development

Veh AM

	East Gate	Laporte Road	Queens Road	PM	East Gate	Laporte Road	Queens Road
East Gate		19		East Gate		19	
Laporte Road	2		7	Laporte Road			
Queens Road	2	3		Queens Road	1		

HGVs AM

	East Gate	Laporte Road	Queens Road	PM	East Gate	Laporte Road	Queens Road
East Gate			7	East Gate			
Laporte Road				Laporte Road			
Queens Road	1	3		Queens Road	1		

PCUs AM

	East Gate	Laporte Road	Queens Road	PM	East Gate	Laporte Road	Queens Road
East Gate	0	19	0	East Gate	0	19	0
Laporte Road	2	0	16	Laporte Road	0	0	0
Queens Road	3	7	0	Queens Road	2	0	0

Proposed Development

Veh AM

	East Gate	Laporte Road	Queens Road	PM	East Gate	Laporte Road	Queens Road
East Gate		26	53	East Gate		26	69
Laporte Road	26			Laporte Road	26		
Queens Road	83			Queens Road	107		

HGVs AM

	East Gate	Laporte Road	Queens Road	PM	East Gate	Laporte Road	Queens Road
East Gate		0	36	East Gate		0	52
Laporte Road	0			Laporte Road	1		
Queens Road	66			Queens Road	90		

PCU AM (7-8)

	East Gate	Laporte Road	Queens Road	PM (16-18)	East Gate	Laporte Road	Queens Road
East Gate	0	26	101	East Gate	0	26	137
Laporte Road	26	0	0	Laporte Road	27	0	0
Queens Road	168	0	0	Queens Road	224	0	0

2025 Baseline

PCU AM

	East Gate	Laporte Road	Queens Road	PM	East Gate	Laporte Road	Queens Road
East Gate	0	48	104	East Gate	0	301	192
Laporte Road	260	0	54	Laporte Road	66	0	90
Queens Road	276	46	0	Queens Road	71	34	0

HGV % AM

	East Gate	Laporte Road	Queens Road	PM	East Gate	Laporte Road	Queens Road
East Gate		50%	70%	East Gate		19%	19%
Laporte Road	15%		22%	Laporte Road	49%		9%
Queens Road	19%	13%		Queens Road	59%	10%	

2025 Baseline + Committed

PCU AM

	East Gate	Laporte Road	Queens Road	PM	East Gate	Laporte Road	Queens Road
East Gate	0	67	104	East Gate	0	320	192
Laporte Road	262	0	70	Laporte Road	66	0	90
Queens Road	280	53	0	Queens Road	73	34	0

HGV % AM

	East Gate	Laporte Road	Queens Road	PM	East Gate	Laporte Road	Queens Road
East Gate		30%	70%	East Gate		17%	19%
Laporte Road	14%		33%	Laporte Road	49%		9%
Queens Road	19%	20%		Queens Road	60%	10%	

2025 Baseline + Committed + Development

PCU AM

	East Gate	Laporte Road	Queens Road	PM	East Gate	Laporte Road	Queens Road
East Gate	0	93	205	East Gate	0	346	329
Laporte Road	288	0	70	Laporte Road	92	0	90
Queens Road	448	53	0	Queens Road	297	34	0

HGV % AM

	East Gate	Laporte Road	Queens Road	PM	East Gate	Laporte Road	Queens Road
East Gate		20%	69%	East Gate		16%	37%
Laporte Road	13%		33%	Laporte Road	30%		9%
Queens Road	36%	20%		Queens Road	78%	10%	

2032 Baseline

PCU AM

	East Gate	Laporte Road	Queens Road	PM	East Gate	Laporte Road	Queens Road
East Gate	0	50	109	East Gate	0	314	201
Laporte Road	272	0	57	Laporte Road	68	0	94
Queens Road	289	48	0	Queens Road	74	35	0

HGV % AM

	East Gate	Laporte Road	Queens Road	PM	East Gate	Laporte Road	Queens Road
East Gate		50%	70%	East Gate		19%	19%
Laporte Road	15%		22%	Laporte Road	49%		9%
Queens Road	19%	13%		Queens Road	59%	10%	

2032 Baseline + Committed

PCU AM

	East Gate	Laporte Road	Queens Road	PM	East Gate	Laporte Road	Queens Road
East Gate	0	69	109	East Gate	0	333	201
Laporte Road	274	0	73	Laporte Road	68	0	94
Queens Road	292	55	0	Queens Road	76	35	0

HGV % AM

	East Gate	Laporte Road	Queens Road	PM	East Gate	Laporte Road	Queens Road
East Gate		30%	70%	East Gate		17%	19%
Laporte Road	14%		33%	Laporte Road	49%		9%
Queens Road	19%	20%		Queens Road	60%	10%	

2032 Baseline + Committed + Development

PCU AM

	East Gate	Laporte Road	Queens Road	PM	East Gate	Laporte Road	Queens Road
East Gate	0	95	209	East Gate	0	359	337
Laporte Road	300	0	73	Laporte Road	95	0	94
Queens Road	461	55	0	Queens Road	300	35	0

HGV % AM

	East Gate	Laporte Road	Queens Road	PM	East Gate	Laporte Road	Queens Road
East Gate		20%	69%	East Gate		16%	37%
Laporte Road	13%		33%	Laporte Road	30%		9%
Queens Road	36%	20%		Queens Road	78%	10%	

Laporte Road/ Kiln Lane/ Hobson Way

Baseline

Veh AM (7-8)	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access	0	1	1	0
Hobson Way	0	0	91	287
Kiln Lane	1	74	2	169
Laporte Road	0	38	22	0

PM (16-17)	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access	0	0	4	0
Hobson Way	0	0	109	65
Kiln Lane	0	94	4	32
Laporte Road	0	275	183	0

HGVs AM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access	0	0	0	0
Hobson Way	0	0	15	17
Kiln Lane	0	17	0	35
Laporte Road	0	7	17	0

PM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access	0	0	0	0
Hobson Way	0	0	26	7
Kiln Lane	0	15	1	23
Laporte Road	0	15	41	0

PCUs AM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access	0	1	1	0
Hobson Way	0	0	111	309
Kiln Lane	1	96	2	215
Laporte Road	0	47	44	0

PM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access	0	0	4	0
Hobson Way	0	0	143	74
Kiln Lane	0	114	5	62
Laporte Road	0	295	236	0

Committed Development

Veh AM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access				
Hobson Way			44	
Kiln Lane		24		46
Laporte Road			22	

PM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access				
Hobson Way			25	
Kiln Lane				26
Laporte Road			19	

HGVs AM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access				
Hobson Way			44	
Kiln Lane		7		44
Laporte Road			3	

PM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access				
Hobson Way			25	
Kiln Lane				24
Laporte Road				

PCUs AM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access	0	0	0	0
Hobson Way	0	0	102	0
Kiln Lane	0	33	0	104
Laporte Road	0	0	26	0

PM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access	0	0	0	0
Hobson Way	0	0	59	0
Kiln Lane	0	0	0	58
Laporte Road	0	0	19	0

Proposed Development

Veh AM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access				
Hobson Way				26
Kiln Lane		26		
Laporte Road				

PM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access				
Hobson Way				26
Kiln Lane				
Laporte Road		26		

HGVs AM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access				
Hobson Way				0
Kiln Lane		0		
Laporte Road			0	

PM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access				
Hobson Way				1
Kiln Lane				
Laporte Road		0		

PCU AM (7-8)	Air Products Access	Immingham	Kiln Lane	Laporte Road
Air Products Access	0	0	0	0
Hobson Way	0	0	0	26
Kiln Lane	0	0	0	0
Laporte Road	0	26	0	0

PM (16-18)	Air Products Access	Stena	Kiln Lane	Laporte Road
Air Products Access	0	0	0	0
Hobson Way	0	0	0	27
Kiln Lane	0	0	0	0
Laporte Road	0	26	0	0

North East Lincolnshire 007	2021-2025	2021-2032
AM	1.0269	1.0683
PM	1.0255	1.0649

2025 Baseline

PCU AM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access	0	1	1	0
Hobson Way	0	0	113	317
Kiln Lane	1	99	2	220
Laporte Road	0	48	45	0

PM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access	0	0	4	0
Hobson Way	0	0	146	76
Kiln Lane	0	116	5	63
Laporte Road	0	302	242	0

HGV % AM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access		0%	0%	
Hobson Way			16%	6%
Kiln Lane	0%	23%	0%	21%
Laporte Road		18%	77%	

PM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access			0%	
Hobson Way			24%	11%
Kiln Lane		16%	25%	72%
Laporte Road		5%	22%	

2025 Baseline + Committed

PCU AM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access	0	1	1	0
Hobson Way	0	0	216	317
Kiln Lane	1	131	2	325
Laporte Road	0	48	71	0

PM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access	0	0	4	0
Hobson Way	0	0	205	76
Kiln Lane	0	116	5	122
Laporte Road	0	302	261	0

HGV % AM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access			0%	0%
Hobson Way			44%	6%
Kiln Lane	0%	25%	0%	37%
Laporte Road		18%	45%	

PM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access			0%	
Hobson Way			38%	11%
Kiln Lane		16%	25%	81%
Laporte Road		5%	20%	

2025 Baseline + Committed + Development

PCU AM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access	0	1	1	0
Hobson Way	0	0	216	344
Kiln Lane	1	131	2	325
Laporte Road	0	74	71	0

PM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access	0	0	4	0
Hobson Way	0	0	205	103
Kiln Lane	0	116	5	122
Laporte Road	0	328	261	0

HGV % AM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access		0%	0%	
Hobson Way			44%	6%
Kiln Lane	0%	25%	0%	37%
Laporte Road		11%	45%	

PM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access			0%	
Hobson Way			38%	8%
Kiln Lane		16%	25%	81%
Laporte Road		5%	20%	

2032 Baseline

PCU AM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access	0	1	1	0
Hobson Way	0	0	118	330
Kiln Lane	1	103	2	229
Laporte Road	0	50	47	0

PM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access	0	0	4	0
Hobson Way	0	0	152	79
Kiln Lane	0	121	6	66
Laporte Road	0	314	252	0

HGV % AM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access		0%	0%	
Hobson Way			16%	6%
Kiln Lane	0%	23%	0%	21%
Laporte Road		18%	77%	

PM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access			0%	
Hobson Way			24%	11%
Kiln Lane		16%	25%	72%
Laporte Road		5%	22%	

2032 Baseline + Committed

PCU AM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access	0	1	1	0
Hobson Way	0	0	220	330
Kiln Lane	1	135	2	333
Laporte Road	0	50	73	0

PM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access	0	0	4	0
Hobson Way	0	0	211	79
Kiln Lane	0	121	6	124
Laporte Road	0	314	271	0

HGV % AM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access		0%	0%	
Hobson Way			44%	6%
Kiln Lane	0%	25%	0%	37%
Laporte Road		18%	45%	

PM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access			0%	
Hobson Way			38%	11%
Kiln Lane		16%	25%	81%
Laporte Road		5%	20%	

2032 Baseline + Committed + Development

PCU AM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access	0	1	1	0
Hobson Way	0	0	220	357
Kiln Lane	1	135	2	333
Laporte Road	0	76	73	0

PM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access	0	0	4	0
Hobson Way	0	0	211	106
Kiln Lane	0	121	6	124
Laporte Road	0	340	271	0

HGV % AM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access		0%	0%	
Hobson Way			44%	6%
Kiln Lane	0%	25%	0%	37%
Laporte Road		11%	45%	

PM	Air Products Access	Hobson Way	Kiln Lane	Laporte Road
Air Products Access			0%	
Hobson Way			38%	8%
Kiln Lane		16%	25%	81%
Laporte Road		5%	20%	

Kings Road/ A1173

Baseline

Veh AM (7-8)	Kings Road			A1173 Kings Road			PM (16-17)	Kings Road			A1173 Kings Road				
Kings Road	0	37	51	Kings Road	0	149	147	Kings Road	0	149	147	A1173 Kings Road	27	0	232
A1173	214	1	438	A1173	27	0	232	A1173 Kings Road	50	470	1				
A1173 Kings Road	110	153	1	A1173 Kings Road	50	470	1								

HGVs AM	Kings Road			A1173 Kings Road			PM	Kings Road			A1173 Kings Road				
Kings Road	0	27	13	Kings Road	0	25	9	Kings Road	0	25	9	A1173 Kings Road	14	0	47
A1173	26	0	67	A1173	14	0	47	A1173 Kings Road	12	51	0				
A1173 Kings Road	11	36	0	A1173 Kings Road	12	51	0								

PCUs AM	Kings Road			A1173 Kings Road			PM	Kings Road			A1173 Kings Road				
Kings Road	0	72	68	Kings Road	0	182	159	Kings Road	0	182	159	A1173 Kings Road	45	0	293
A1173	248	1	525	A1173	45	0	293	A1173 Kings Road	66	536	1				
A1173 Kings Road	124	200	1	A1173 Kings Road	66	536	1								

Committed Development

Veh AM	Kings Road			A1173 Kings Road			PM	Kings Road			A1173 Kings Road				
Kings Road	0	0	0	Kings Road	0	7	1	Kings Road	0	7	1	A1173 Kings Road	20	0	63
A1173	21	0	72	A1173	58	0	44	A1173	57	0	35	A1173 Kings Road	4	29	63
A1173 Kings Road	4	31	0	A1173 Kings Road	0	58	0	A1173 Kings Road	52						

HGVs AM	Kings Road			A1173 Kings Road			PM	Kings Road			A1173 Kings Road				
Kings Road	0	0	0	Kings Road	0	7	1	Kings Road	0	7	1	A1173 Kings Road	1	0	7
A1173	21	0	72	A1173	58	0	44	A1173	1	0	7	A1173 Kings Road	1	0	7
A1173 Kings Road	4	31	0	A1173 Kings Road	0	58	0	A1173 Kings Road	5						

PCUs AM	Kings Road			A1173 Kings Road			PM	Kings Road			A1173 Kings Road				
Kings Road	0	0	0	Kings Road	0	7	1	Kings Road	0	7	1	A1173 Kings Road	21	0	72
A1173	21	0	72	A1173	58	0	44	A1173	58	0	44	A1173 Kings Road	4	31	0
A1173 Kings Road	4	31	0	A1173 Kings Road	0	58	0	A1173 Kings Road	0	58	0				

Proposed Development

Veh AM	Kings Road			A1173 Kings Road			PM	Kings Road			A1173 Kings Road				
Kings Road	0	93	8	Kings Road	0	129	8	Kings Road	0	129	8	A1173 Kings Road	75	0	3
A1173	161	0	3	A1173	216	0	3	A1173	99	0	3	A1173 Kings Road	8	3	3
A1173 Kings Road	8	3	0	A1173 Kings Road	8	3	0	A1173 Kings Road	8	3	0				

HGVs AM	Kings Road			A1173 Kings Road			PM	Kings Road			A1173 Kings Road				
Kings Road	0	36	8	Kings Road	0	52	8	Kings Road	0	52	8	A1173 Kings Road	66	0	36
A1173	66	0	36	A1173	90	0	36	A1173	90	0	36	A1173 Kings Road	66	0	36
A1173 Kings Road	66	0	36	A1173 Kings Road	90	0	36	A1173 Kings Road	90	0	36				

PCUs AM (7-8)	Kings Road			A1173 Kings Road			PM (16-18)	Kings Road			Stena A1173 Kings Road				
Kings Road	0	93	8	Kings Road	0	129	8	Kings Road	0	129	8	A1173 Kings Road	0	129	8
A1173	161	0	3	A1173	216	0	3	A1173	216	0	3	A1173 Kings Road	216	0	3
A1173 Kings Road	8	3	0	A1173 Kings Road	8	3	0	A1173 Kings Road	8	3	0				

North East Lincolnshire 001	2021-2025	2021-2032
AM	1.0298	1.0773
PM	1.0291	1.075

2025 Baseline

PCU AM	Kings Road			A1173 Kings Road			PM	Kings Road			A1173 Kings Road				
Kings Road	0	74	70	Kings Road	0	187	163	Kings Road	0	187	163	A1173 Kings Road	47	0	302
A1173	255	1	541	A1173	47	0	302	A1173	47	0	302	A1173 Kings Road	68	552	1
A1173 Kings Road	128	206	1	A1173 Kings Road	68	552	1	A1173 Kings Road	68	552	1				

HGV % AM	Kings Road			A1173 Kings Road			PM	Kings Road			A1173 Kings Road				
Kings Road	73%	0%	25%	Kings Road	73%	0%	25%	Kings Road	73%	0%	25%	A1173 Kings Road	17%	0%	6%
A1173	12%	0%	15%	A1173	12%	0%	15%	A1173	12%	0%	15%	A1173 Kings Road	52%	11%	20%
A1173 Kings Road	10%	24%	0%	A1173 Kings Road	10%	24%	0%	A1173 Kings Road	10%	24%	0%	A1173 Kings Road	24%	11%	0%

2025 Baseline + Committed

PCU AM	Kings Road			A1173 Kings Road			PM	Kings Road			A1173 Kings Road				
Kings Road	0	74	70	Kings Road	0	194	165	Kings Road	0	194	165	A1173 Kings Road	105	0	346
A1173	276	1	613	A1173	105	0	346	A1173	105	0	346	A1173 Kings Road	68	610	1
A1173 Kings Road	132	237	1	A1173 Kings Road	68	610	1	A1173 Kings Road	68	610	1				

HGV % AM	Kings Road			A1173 Kings Road			PM	Kings Road			A1173 Kings Road				
Kings Road	73%	0%	25%	Kings Road	73%	0%	25%	Kings Road	73%	0%	25%	A1173 Kings Road	16%	0%	6%
A1173	12%	0%	15%	A1173	12%	0%	15%	A1173	12%	0%	15%	A1173 Kings Road	18%	11%	20%
A1173 Kings Road	10%	21%	0%	A1173 Kings Road	10%	21%	0%	A1173 Kings Road	10%	21%	0%	A1173 Kings Road	24%	11%	0%

2025 Baseline + Committed + Development

PCU AM	Kings Road			A1173 Kings Road			PM	Kings Road			A1173 Kings Road				
Kings Road	0	167	78	Kings Road	0	322	172	Kings Road	0	322	172	A1173 Kings Road	321	0	348
A1173	437	1	616	A1173	321	0	348	A1173	321	0	348	A1173 Kings Road	75	613	1
A1173 Kings Road	139	240	1	A1173 Kings Road	75	613	1	A1173 Kings Road	75	613	1				

HGV % AM	Kings Road			A1173 Kings Road			PM	Kings Road			A1173 Kings Road				
Kings Road	77%	0%	22%	Kings Road	77%	0%	22%	Kings Road	77%	0%	22%	A1173 Kings Road	35%	0%	6%
A1173	30%	0%	15%	A1173	30%	0%	15%	A1173	30%	0%	15%	A1173 Kings Road	57%	11%	20%
A1173 Kings Road	9%	21%	0%	A1173 Kings Road	9%	21%	0%	A1173 Kings Road	9%	21%	0%	A1173 Kings Road	21%	11%	0%

2032 Baseline

PCU AM	Kings Road			A1173 Kings Road			PM	Kings Road			A1173 Kings Road				
Kings Road	0	78	73	Kings Road	0	195	171	Kings Road	0	195	171	A1173 Kings Road	49	0	315
A1173	267	1	566	A1173	49	0	315	A1173	49	0	315	A1173 Kings Road	71	577	1
A1173 Kings Road	134	215	1	A1173 Kings Road	71	577	1	A1173 Kings Road	71	577	1				

HGV % AM	Kings Road			A1173 Kings Road			PM	Kings Road			A1173 Kings Road				
Kings Road	73%	0%	25%	Kings Road	73%	0%	25%	Kings Road	73%	0%	25%	A1173 Kings Road	17%	0%	6%
A1173	12%	0%	15%	A1173	12%	0%	15%	A1173	12%	0%	15%	A1173 Kings Road	52%	11%	20%
A1173 Kings Road	10%	24%	0%	A1173 Kings Road	10%	24%	0%	A1173 Kings Road	10%	24%	0%	A1173 Kings Road	24%	11%	0%

2032 Baseline + Committed

PCU AM	Kings Road			A1173 Kings Road			PM	Kings Road			A1173 Kings Road				
Kings Road	0	78	73	Kings Road	0	202	172	Kings Road	0	202	172	A1173 Kings Road	107	0	359
A1173	288	1	638	A1173	107	0	359	A1173	107	0	359	A1173 Kings Road	71	635	1
A1173 Kings Road	138	247	1	A1173 Kings Road	71	635	1	A1173 Kings Road	71	635	1				

HGV % AM	Kings Road			A1173 Kings Road			PM	Kings Road			A1173 Kings Road				
Kings Road	73%	0%	25%	Kings Road	73%	0%	25%	Kings Road	73%	0%	25%	A1173 Kings Road	16%	0%	6%
A1173	12%	0%	15%	A1173	12%	0%	15%	A1173	12%	0%	15%	A1173 Kings Road	18%	11%	20%
A1173 Kings Road	10%	21%	0%	A1173 Kings Road	10%	21%	0%	A1173 Kings Road	10%	21%	0%	A1173 Kings Road	24%	11%	0%

2032 Baseline + Committed + Development

PCU AM	Kings Road			A1173 Kings Road			PM	Kings Road			A1173 Kings Road				
Kings Road	0	171	81	Kings Road	0	331	180	Kings Road	0	331	180	A1173 Kings Road	323	0	362
A1173	449	1	641	A1173	323	0	362	A1173	323	0	362	A1173 Kings Road	78	638	1
A1173 Kings Road	145	249	1	A1173 Kings Road	78	638	1	A1173 Kings Road	78	638	1				

HGV % AM	Kings Road			A1173 Kings Road			PM	Kings Road			A1173 Kings Road				
Kings Road	77%	0%	22%	Kings Road	77%	0%	22%	Kings Road	77%	0%	22%	A1173 Kings Road	35%	0%	6%
A1173	30%	0%	15%	A1173	30%	0%	15%	A1173	30%	0%	15%	A1173 Kings Road	57%	11%	20%
A1173 Kings Road	9%	21%	0%	A1173 Kings Road	9%	21%	0%	A1173 Kings Road	9%	21%	0%	A1173 Kings Road	21%	11%	0%

A1173/ Kiln Lane

Baseline

Veh
AM (7-8)

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane	0	0	81	74
Access	0	0	0	0
A1173 W	407	2	0	560
A1173 N	70	0	113	0

HGVs

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane	0	0	40	37
Access	0	0	0	0
A1173 W	43	0	0	57
A1173 N	18	0	44	0

PCUs

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane	0	0	133	122
Access	0	0	0	0
A1173 W	463	2	0	634
A1173 N	93	0	170	0

Committed Development

Veh

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane		1	56	
Access	2		6	3
A1173 W	80	4		79
A1173 N		7	21	

HGVs

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane		1	50	
Access	2		6	2
A1173 W	57	4		6
A1173 N		1	2	

PCUs

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane	0	2	122	0
Access	5	0	14	6
A1173 W	154	9	0	87
A1173 N	0	8	24	0

Proposed Development

Veh

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane				
Access				78
A1173 W			49	
A1173 N				

HGVs

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane				
Access				66
A1173 W			36	
A1173 N				

PCU

AM (7-8)

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane	0	0	0	0
Access	0	0	0	0
A1173 W	0	0	0	164
A1173 N	0	0	96	0

North East Lincolnshire 007

2021-2025 2021-2032

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane	0	4	445	89
Access	0	0	2	0
A1173 W	112	0	0	149
A1173 N	74	0	531	0

HGVs

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane	0	0	37	23
Access	0	0	0	0
A1173 W	63	0	0	37
A1173 N	31	0	46	0

PCUs

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane	0	4	493	119
Access	0	0	2	0
A1173 W	194	0	0	197
A1173 N	114	0	591	0

HGVs

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane		3	34	
Access	3		5	4
A1173 W	39	11		34
A1173 N		46	13	

HGVs

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane		1	30	
Access	1		5	2
A1173 W	29	11		4
A1173 N		1	4	

PCUs

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane	0	4	74	0
Access	4	0	12	7
A1173 W	78	25	0	39
A1173 N	0	47	18	0

Proposed Development

Veh

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane				
Access				102
A1173 W				
A1173 N			64	

HGVs

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane				
Access				90
A1173 W				
A1173 N			52	

PCU

AM (16-18)

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane	0	0	0	0
Access	0	0	0	0
A1173 W	0	0	0	219
A1173 N	0	0	132	0

2025 Baseline

PCU

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane	0	0	137	125
Access	0	0	0	0
A1173 W	475	2	0	651
A1173 N	96	0	175	0

HGV %

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane		0%	49%	50%
Access		0%	0%	0%
A1173 W		11%	0%	10%
A1173 N		26%	0%	39%

2025 Baseline + Committed

PCU

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane	0	2	259	125
Access	5	0	14	6
A1173 W	630	11	0	738
A1173 N	96	8	198	0

HGV %

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane		0%	66%	50%
Access		0%	100%	0%
A1173 W		21%	67%	10%
A1173 N		26%	0%	34%

2025 Baseline + Committed + Development

PCU

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane	0	2	259	125
Access	5	0	14	6
A1173 W	630	11	0	902
A1173 N	96	8	294	0

HGV %

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane		0%	66%	50%
Access		0%	100%	0%
A1173 W		21%	67%	18%
A1173 N		26%	0%	45%

2032 Baseline

PCU

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane	0	4	506	122
Access	0	0	2	0
A1173 W	199	0	0	202
A1173 N	117	0	606	0

HGV %

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane		0%	8%	26%
Access		0%	0%	0%
A1173 W		56%	0%	25%
A1173 N		42%	0%	9%

2032 Baseline + Committed

PCU

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane	0	8	580	122
Access	4	0	14	7
A1173 W	277	25	0	241
A1173 N	117	47	624	0

HGV %

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane		14%	14%	26%
Access		0%	71%	0%
A1173 W		61%	0%	22%
A1173 N		42%	0%	9%

2032 Baseline + Committed + Development

PCU

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane	0	8	580	122
Access	4	0	14	7
A1173 W	277	25	0	460
A1173 N	117	47	756	0

HGV %

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane		14%	14%	26%
Access		0%	71%	0%
A1173 W		61%	0%	46%
A1173 N		42%	0%	17%

2025 Baseline

PCU

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane	0	0	142	130
Access	0	0	0	0
A1173 W	495	2	0	677
A1173 N	100	0	182	0

HGV %

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane		0%	49%	50%
Access		0%	0%	0%
A1173 W		11%	0%	10%
A1173 N		26%	0%	39%

2032 Baseline + Committed

PCU

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane	0	2	264	130
Access	5	0	14	6
A1173 W	649	11	0	764
A1173 N	100	8	205	0

HGV %

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane		0%	66%	50%
Access		0%	100%	0%
A1173 W		21%	67%	10%
A1173 N		26%	0%	34%

2032 Baseline + Committed + Development

PCU

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane	0	2	264	130
Access	5	0	14	6
A1173 W	649	11	0	928
A1173 N	100	8	301	0

HGV %

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane		0%	66%	50%
Access		0%	100%	0%
A1173 W		21%	67%	18%
A1173 N		26%	0%	45%

2025 Baseline

PCU

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane	0	4	525	127
Access	0	0	2	0
A1173 W	206	0	0	210
A1173 N	122	0	629	0

HGV %

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane		0%	8%	26%
Access		0%	0%	0%
A1173 W		56%	0%	25%
A1173 N		42%	0%	9%

2032 Baseline + Committed

PCU

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane	0	9	599	127
Access	4	0	14	7
A1173 W	284	25	0	249
A1173 N	122	47	647	0

HGV %

AM

	Kiln Lane	Access	A1173 W	A1173 N
Kiln Lane		14%	14%	26%
Access		0%	71%	0%
A1173 W		61%	0%	22%
A1173 N		42%	0%	9%

2032 Baseline + Committed + Development

PCU

AM

Baseline				
Veh	AM (7-8)		PM (16-17)	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	0	0	0
A1173 W	0	0	0	969
SHIIP Access N	0	0	0	0
A1173 E	0	194	0	0

HGVs				
AM	AM		PM	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	0	0	0
A1173 W	0	0	0	100
SHIIP Access N	0	0	0	0
A1173 E	0	84	0	0

PCU				
AM (7-8)	AM (7-8)		PM (16-17)	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	0	0	0
A1173 W	0	0	0	1099
SHIIP Access N	0	0	0	0
A1173 E	0	303	0	0

Committed Development				
Veh	AM		PM	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	56	15	15	29
A1173 W	125	22	163	84
SHIIP Access N	11	3	4	4
A1173 E	24	117	4	2

HGVs				
AM	AM		PM	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	10	2	67	6
A1173 W	4	2	44	2
SHIIP Access N	3	1	2	2
A1173 E	3	55	1	2

PCU				
AM	AM		PM	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	75	0	27
A1173 W	138	0	25	250
SHIIP Access N	0	16	0	6
A1173 E	28	190	5	0

Proposed Development				
Veh	AM		PM	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S			78	
A1173 W				102
SHIIP Access N				
A1173 E	49			64

HGVs				
AM	AM		PM	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S			66	
A1173 W				90
SHIIP Access N				
A1173 E	36			52

PCUs				
AM (7-8)	AM (7-8)		PM (16-18)	
	SHIIP Access S	Immingham	Stena	A1173 E
SHIIP Access S				
A1173 W				164
SHIIP Access N				
A1173 E	96		132	

North East Lincolnshire 007		
	2021-2025	2021-2032
AM	1.0269	1.0683
PM	1.0255	1.0649

2025 Baseline				
PCU	AM		PM	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	0	0	0
A1173 W	0	0	0	1129
SHIIP Access N	0	0	0	0
A1173 E	0	311	0	0

HGV %				
AM	AM		PM	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S				
A1173 W				10%
SHIIP Access N				
A1173 E	43%			

2025 Baseline + Committed				
PCU	AM		PM	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	15	0	9
A1173 W	10	0	2	1196
SHIIP Access N	0	4	0	2
A1173 E	3	367	1	0

HGV %				
AM	AM		PM	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	27%			59%
A1173 W	8%		9%	15%
SHIIP Access N		37%		59%
A1173 E	12%	45%	27%	

2025 Baseline + Committed + Development				
PCU	AM		PM	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	15	0	9
A1173 W	10	0	2	1360
SHIIP Access N	0	4	0	2
A1173 E	3	463	1	0

HGV %				
AM	AM		PM	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	27%			59%
A1173 W	8%		9%	19%
SHIIP Access N		37%		59%
A1173 E	12%	49%	27%	

2032 Baseline				
PCU	AM		PM	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	0	0	0
A1173 W	0	0	0	401
SHIIP Access N	0	0	0	0
A1173 E	0	1114	0	0

HGV %				
AM	AM		PM	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S				
A1173 W				38%
SHIIP Access N				
A1173 E	8%			

2032 Baseline + Committed				
PCU	AM		PM	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	143	0	37
A1173 W	102	0	24	543
SHIIP Access N	0	28	0	7
A1173 E	23	1269	5	0

HGV %				
AM	AM		PM	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	9%			21%
A1173 W	36%		37%	42%
SHIIP Access N		12%		45%
A1173 E	39%	11%	83%	

2032 Baseline + Committed + Development				
PCU	AM		PM	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	143	0	37
A1173 W	102	0	24	762
SHIIP Access N	0	28	0	7
A1173 E	23	1401	5	0

HGV %				
AM	AM		PM	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	9%			21%
A1173 W	36%		37%	52%
SHIIP Access N		12%		45%
A1173 E	39%	15%	83%	

2032 Baseline				
PCU	AM		PM	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	0	0	0
A1173 W	0	0	0	1174
SHIIP Access N	0	0	0	0
A1173 E	0	324	0	0

HGV %				
AM	AM		PM	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S				
A1173 W				10%
SHIIP Access N				
A1173 E	43%			

2032 Baseline + Committed				
PCU	AM		PM	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	75	0	27
A1173 W	138	0	25	1425
SHIIP Access N	0	16	0	6
A1173 E	28	514	5	0

HGV %				
AM	AM		PM	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	27%			59%
A1173 W	8%		9%	15%
SHIIP Access N		37%		59%
A1173 E	12%	45%	27%	

2032 Baseline + Committed + Development				
PCU	AM		PM	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	75	0	27
A1173 W	138	0	25	1588
SHIIP Access N	0	16	0	6
A1173 E	28	609	5	0

HGV %				
AM	AM		PM	
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	27%			59%
A1173 W	8%		9%	19%
SHIIP Access N		37%		59%
A1173 E	12%	49%	27%	

A160/ Humber Road/ Manby Road

Baseline

Veh AM (7-8)	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	12	58	1	310	0
Manby Road	330	3	1	231	0
Port Service Access	4	0	0	2	0
A160	367	180	3	9	2
Conco Access	0	0	0	0	0

HGVs AM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	5	22	1	285	0
Manby Road	74	2	1	50	0
Port Service Access	4	0	0	2	0
A160	177	34	3	6	2
Conco Access	0	0	0	0	0

PCUs AM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	19	87	2	681	0
Manby Road	426	6	2	296	0
Port Service Access	9	0	0	5	0
A160	597	224	7	17	5
Conco Access	0	0	0	0	0

Committed Development

Veh AM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	1	29		6	
Manby Road	104			24	
Port Service Access					
A160	36	11			
Conco Access					

HGVs AM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road				3	
Manby Road					
Port Service Access					
A160	4				
Conco Access					

PCUs AM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	1	29		0	10
Manby Road	104	0		0	24
Port Service Access	0	0		0	0
A160	41	11		0	0
Conco Access	0	0		0	0

Proposed Development

Veh AM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	4	4		10	
Manby Road					
Port Service Access					
A160	15				
Conco Access					

HGVs AM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road				6	
Manby Road					
Port Service Access					
A160	12				
Conco Access					

PCU AM (7-8)	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	0	4		0	18
Manby Road	4	0		0	0
Port Service Access	0	0		0	0
A160	30	0		0	0
Conco Access	0	0		0	0

PM (16-17)

Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	49	303	0	407
Manby Road	115	11	1	214
Port Service Access	0	4	0	6
A160	223	240	4	5
Conco Access	0	2	0	1

HGVs PM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	18	65	0	247	0
Manby Road	42	1	1	43	0
Port Service Access	0	2	0	4	0
A160	202	48	3	2	2
Conco Access	0	0	0	1	0

PCUs PM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	72	388	0	728	0
Manby Road	170	12	2	270	0
Port Service Access	0	7	0	11	0
A160	486	302	8	8	5
Conco Access	0	2	0	2	0

Veh PM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	9	116		26	
Manby Road	34			12	
Port Service Access					
A160	7	35			
Conco Access					

HGVs PM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road				2	
Manby Road					
Port Service Access					
A160	2				
Conco Access					

PCUs PM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	9	116		0	29
Manby Road	34	0		0	12
Port Service Access	0	0		0	0
A160	9	35		0	0
Conco Access	0	0		0	0

Veh PM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	4	4		13	
Manby Road					
Port Service Access					
A160	19				
Conco Access					

HGVs PM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road				9	
Manby Road					
Port Service Access					
A160	16				
Conco Access					

PCU PM (16-18)	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	0	4		0	25
Manby Road	4	0		0	0
Port Service Access	0	0		0	0
A160	40	0		0	0
Conco Access	0	0		0	0

North Lincolnshire 004	2021-2025	2021-2032
AM	1.0443	1.1131
PM	1.0434	1.1108

2025 Baseline

PCU AM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	19	90	2	711	0
Manby Road	445	6	2	309	0
Port Service Access	10	0	0	5	0
A160	624	234	7	18	5
Conco Access	0	0	0	0	0

HGV % AM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	42%	38%	100%	92%	
Manby Road	22%	67%	100%	22%	
Port Service Access	100%		100%		
A160	48%	19%	100%	67%	100%
Conco Access					

2025 Baseline + Committed

PCU AM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	21	120	2	721	0
Manby Road	549	6	2	333	0
Port Service Access	10	0	0	5	0
A160	664	245	7	18	5
Conco Access	0	0	0	0	0

HGV % AM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	38%	25%	100%	91%	
Manby Road	17%	67%	100%	20%	
Port Service Access	100%		100%		
A160	45%	18%	100%	67%	100%
Conco Access					

2025 Baseline + Committed + Development

PCU AM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	21	124	2	739	0
Manby Road	553	6	2	333	0
Port Service Access	10	0	0	5	0
A160	695	245	7	18	5
Conco Access	0	0	0	0	0

HGV % AM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	38%	24%	100%	90%	
Manby Road	17%	67%	100%	20%	
Port Service Access	100%		100%		
A160	46%	18%	100%	67%	100%
Conco Access					

2032 Baseline

PCU AM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	21	96	3	757	0
Manby Road	474	6	3	329	0
Port Service Access	10	0	0	5	0
A160	665	250	8	19	5
Conco Access	0	0	0	0	0

HGV % AM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	42%	38%	100%	92%	
Manby Road	22%	67%	100%	22%	
Port Service Access	100%		100%		
A160	48%	19%	100%	67%	100%
Conco Access					

2032 Baseline + Committed

PCU AM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	22	126	3	768	0
Manby Road	579	6	3	353	0
Port Service Access	10	0	0	5	0
A160	706	260	8	19	5
Conco Access	0	0	0	0	0

HGV % AM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	38%	25%	100%	91%	
Manby Road	17%	67%	100%	20%	
Port Service Access	100%		100%		
A160	45%	18%	100%	67%	100%
Conco Access					

2032 Baseline + Committed + Development

PCU AM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	22	130	3	786	0
Manby Road	583	6	3	353	0
Port Service Access	10	0	0	5	0
A160	736	260	8	19	5
Conco Access	0	0	0	0	0

HGV % AM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	38%	24%	100%	90%	
Manby Road	17%	67%	100%	20%	
Port Service Access	100%		100%		
A160	46%	18%	100%	67%	100%
Conco Access					

PM

Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	76	404	0	760
Manby Road	177	13	2	282
Port Service Access	0	7	0	12
A160	507	316	8	8
Conco Access	0	2	0	2

HGV % PM	Humber Road	Manby Road	Port Service Access	A160	Conco Access
Humber Road	37%	21%	100%	61%	
Manby Road	37%	9%	100%	20%	
Port Service Access		50%		67%	
A160	91%	20%	75%	40%	100%
Conco Access		0%		100%	

PCU PM	Humber Road	Manby Road
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A160/ Ulceby Road/ Habrough Road

Baseline

Veh AM (7-8)						PM (16-17)				
A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road		A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road
1	16	420	37	33		10	114	777	66	109
145	0	51	3	112		17	0	39	18	42
944	38	0	35	246		356	59	0	72	134
79	8	67	0	19		31	14	39	0	22
46	42	145	9	0		38	109	198	29	0

HGVs AM

Veh AM						PM				
A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road		A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road
1	11	343	23	18		10	1	234	28	64
2	0	3	1	5		1	0	0	0	1
194	1	0	17	33		277	3	0	23	50
28	1	15	0	6		16	1	15	0	11
18	3	46	2	0		16	1	25	4	0

PCUs AM

Veh AM						PM				
A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road		A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road
2	30	866	67	56		23	115	1081	102	192
148	0	55	4	119		18	0	39	18	43
1196	39	0	57	289		716	63	0	102	199
115	9	87	0	27		52	15	59	0	36
69	46	205	12	0		59	110	231	34	0

Committed Development

Veh AM						PM				
A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road		A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road
	1	79				4	178			
6				65		2				32
150						103				
		29						95		

HGVs AM

Veh AM						PM				
A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road		A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road
		47						63		
59						66				

PCUs AM

Veh AM						PM				
A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road		A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road
0	1	140	0	0		0	4	260	0	0
6	0	0	0	0		2	0	0	0	0
227	0	0	0	65		189	0	0	0	32
0	0	0	0	0		0	0	0	0	0
0	0	29	0	0		0	0	95	0	0

Proposed Development

Veh AM						PM				
A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road		A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road
	2	8				2	11			
13						18				

HGVs AM

Veh AM						PM				
A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road		A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road
		6						9		
12						16				

PCU AM (7-8)

Veh AM (7-8)						PM (16-18)				
A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road		A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road
0	2	17	0	0		0	2	23	0	0
0	0	0	0	0		0	0	0	0	0
29	0	0	0	0		38	0	0	0	0
0	0	0	0	0		0	0	0	0	0
0	0	0	0	0		0	0	0	0	0

North Lincolnshire 004

AM	2021-2025	2021-2032
AM	1.0443	1.1131
PM	1.0434	1.1108

2025 Baseline

PCU AM					
A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road	
2	32	904	70	59	
154	0	57	4	124	
1249	41	0	60	302	
121	10	90	0	28	
72	48	214	12	0	

HGV % AM

A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road	
100%	69%	82%	62%	55%	
1%	6%	33%	4%	4%	
21%	3%	6%	49%	13%	
35%	13%	22%	22%	32%	
39%	7%	32%	22%		

2025 Baseline + Committed

PCU AM					
A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road	
2	32	1045	70	59	
160	0	57	4	124	
1476	41	0	60	367	
121	10	90	0	28	
72	48	243	12	0	

HGV % AM

A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road	
100%	78%	62%	62%	55%	
1%	6%	33%	4%	4%	
23%	3%	6%	49%	11%	
35%	13%	22%	22%	32%	
39%	7%	26%	22%		

2025 Baseline + Committed + Development

PCU AM					
A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road	
2	34	1061	70	59	
160	0	57	4	124	
1504	41	0	60	367	
121	10	90	0	28	
72	48	243	12	0	

HGV % AM

A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road	
100%	60%	78%	62%	55%	
1%	6%	33%	4%	4%	
24%	3%	6%	49%	11%	
35%	13%	22%	22%	32%	
39%	7%	26%	22%		

2032 Baseline

PCU AM					
A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road	
3	34	964	74	63	
164	0	61	5	132	
1331	44	0	64	322	
128	10	96	0	30	
77	51	228	13	0	

HGV % AM

A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road	
100%	69%	82%	62%	55%	
1%	6%	33%	4%	4%	
21%	3%	6%	49%	13%	
35%	13%	22%	22%	32%	
39%	7%	32%	22%		

2032 Baseline + Committed

PCU AM					
A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road	
3	34	1104	74	63	
170	0	61	5	132	
1558	44	0	64	387	
128	10	96	0	30	
77	51	257	13	0	

HGV % AM

A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road	
100%	66%	78%	62%	55%	
1%	6%	33%	4%	4%	
23%	3%	6%	49%	11%	
35%	13%	22%	22%	32%	
39%	7%	26%	22%		

2032 Baseline + Committed + Development

PCU AM					
A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road	
3	36	1121	74	63	
170	0	61	5	132	
1587	44	0	64	387	
128	10	96	0	30	
77	51	257	13	0	

HGV % AM

A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road	
100%	60%	78%	62%	55%	
1%	6%	33%	4%	4%	
24%	3%	6%	49%	11%	
35%	13%	22%	22%	32%	
39%	7%	26%	22%		

PM

A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road	
24	120	1128	107	201	
19	0	41	19	45	
747	66	0	106	208	
54	16	61	0	38	
61	115	241	36	0	

HGV % PM

A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road	
100%	1%	30%	42%	59%	
6%	0%	0%	0%	2%	
78%	5%	32%	37%	37%	
52%	7%	38%	50%	50%	
42%	1%	13%	14%		

2025 Baseline + Committed + Development

PCU PM					
A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road	
24	125	1388	107	201	
21	0	41	19	45	
936	66	0	106	240	
54	16	61	0	38	
61	115	336	36	0	

HGV % PM

A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road	
100%	1%	31%	42%	59%	
5%	0%	0%	0%	2%	
75%	5%	32%	30%	30%	
52%	7%	38%	50%	50%	
42%	1%	9%	14%		

2032 Baseline

PCU PM					
A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road	
24	126	1411	107	201	
21	0	41	19	45	
974	66	0	106	240	
54	16	61	0	38	
61	115	336	36	0	

HGV % PM

A160 E	Habrough Road	A160 W	Ulceby Road	E Halton Road	
100%	1%	32%	42%</		

A180/ A1173

Baseline

Veh AM (7-8)	A1173 N	A180 E	A1173 S	A180 W
A1173 N	0	105	18	69
A180 E	597	0	86	2
A1173 S	114	175	0	85
A180 W	281	0	11	0

HGVs AM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N		21	8	50
A180 E	30		4	0
A1173 S	4	2		3
A180 W	68		2	

PCUs AM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N	0	132	28	134
A180 E	636	0	91	2
A1173 S	119	178	0	89
A180 W	369	0	14	0

Committed Development

Veh AM	A1173 N	A180 E	A1173 S	A180 W
A1173 N		38	40	39
A180 E	185		17	
A1173 S	20	69		32
A180 W	101		8	

HGVs AM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N			3	32
A180 E	22			20
A1173 S	1			
A180 W	46			

PCUs AM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N	0	42	83	65
A180 E	214	0	17	0
A1173 S	21	69	0	32
A180 W	162	0	8	0

Proposed Development

Veh AM	A1173 N	A180 E	A1173 S	A180 W
A1173 N		3	2	44
A180 E	3			
A1173 S	3			
A180 W	72			

HGVs AM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N			2	35
A180 E				
A1173 S	3			
A180 W	63			

PCU AM (7-8)

	Immingham			
	A1173 N	A180 E	A1173 S	A180 W
A1173 N	0	3	4	89
A180 E	3	0	0	0
A1173 S	7	0	0	0
A180 W	154	0	0	0

PM (16-17)

	A1173 N	A180 E	A1173 S	A180 W
A1173 N	0	584	146	255
A180 E	151	0	204	0
A1173 S	21	124	0	25
A180 W	93	1	62	0

PM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N	0	14	9	63
A180 E	18	0	7	0
A1173 S	7	1	0	2
A180 W	73	0	5	0

PM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N	0	602	158	337
A180 E	174	0	213	0
A1173 S	30	125	0	28
A180 W	188	1	69	0

PM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N		105	41	58
A180 E	63		67	
A1173 S	11	40		18
A180 W	80		31	

PM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N		2	21	17
A180 E	11			
A1173 S	4			
A180 W	53			

PM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N	0	107	69	80
A180 E	76	0	67	0
A1173 S	16	40	0	18
A180 W	149	0	31	0

PM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N		3	2	59
A180 E	3			
A1173 S	4			
A180 W	95			

PM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N			2	50
A180 E				
A1173 S	4			
A180 W	86			

PM (16-18) Stena

	A1173 N	A180 E	A1173 S	A180 W
A1173 N	0	3	5	124
A180 E	3	0	0	0
A1173 S	9	0	0	0
A180 W	207	0	0	0

North East Lincolnshire 007

	2021-2025	2021-2032
AM	1.0269	1.0683
PM	1.0255	1.0649

2025 Baseline

AM	A1173 N	A180 E	A1173 S	A180 W
A1173 N	0	136	29	138
A180 E	653	0	94	2
A1173 S	122	182	0	91
A180 W	379	0	14	0

HGV % AM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N		20%	44%	72%
A180 E	5%		5%	0%
A1173 S	4%	1%		4%
A180 W	24%		18%	

2025 Baseline + Committed

AM	A1173 N	A180 E	A1173 S	A180 W
A1173 N	0	178	112	203
A180 E	867	0	111	2
A1173 S	144	251	0	123
A180 W	541	0	22	0

HGV % AM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N		17%	69%	65%
A180 E	7%		4%	0%
A1173 S	4%	1%		3%
A180 W	30%		11%	

2025 Baseline + Committed + Development

AM	A1173 N	A180 E	A1173 S	A180 W
A1173 N	0	181	116	292
A180 E	870	0	111	2
A1173 S	150	251	0	123
A180 W	695	0	22	0

HGV % AM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N		16%	70%	69%
A180 E	7%		4%	0%
A1173 S	6%	1%		3%
A180 W	39%		11%	

PM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N	0	618	162	345
A180 E	179	0	219	0
A1173 S	31	128	0	28
A180 W	193	1	70	0

PM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N		2%	6%	25%
A180 E	12%		3%	
A1173 S	33%	1%		8%
A180 W	78%	0%	8%	

PM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N	0	725	231	426
A180 E	255	0	286	0
A1173 S	47	168	0	46
A180 W	342	1	101	0

PM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N		2%	16%	26%
A180 E	13%		3%	
A1173 S	34%	1%		5%
A180 W	73%	0%	5%	

PM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N	0	728	236	549
A180 E	258	0	286	0
A1173 S	56	168	0	46
A180 W	549	1	101	0

PM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N		2%	17%	35%
A180 E	13%		3%	
A1173 S	42%	1%		5%
A180 W	79%	0%	5%	

2032 Baseline

AM	A1173 N	A180 E	A1173 S	A180 W
A1173 N	0	141	30	143
A180 E	679	0	97	2
A1173 S	127	190	0	95
A180 W	395	0	15	0

HGV % AM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N		20%	44%	72%
A180 E	5%		5%	0%
A1173 S	4%	1%		4%
A180 W	24%		18%	

2032 Baseline + Committed

AM	A1173 N	A180 E	A1173 S	A180 W
A1173 N	0	183	113	208
A180 E	893	0	114	2
A1173 S	149	259	0	127
A180 W	556	0	23	0

HGV % AM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N		17%	69%	65%
A180 E	7%		4%	0%
A1173 S	4%	1%		3%
A180 W	30%		11%	

2032 Baseline + Committed + Development

AM	A1173 N	A180 E	A1173 S	A180 W
A1173 N	0	186	117	297
A180 E	896	0	114	2
A1173 S	155	259	0	127
A180 W	710	0	23	0

HGV % AM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N		16%	70%	69%
A180 E	7%		4%	0%
A1173 S	6%	1%		3%
A180 W	39%		11%	

PM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N	0	641	168	359
A180 E	186	0	227	0
A1173 S	32	133	0	29
A180 W	200	1	73	0

PM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N		2%	6%	25%
A180 E	12%		3%	
A1173 S	33%	1%		8%
A180 W	78%	0%	8%	

PM

	A1173 N	A180 E	A1173 S	A180 W
A1173 N	0	748	237	439
A180 E	262	0	294	0
A1173 S	48	173	0	47
A180 W	349	1	104	0

PM

	A1173 N	A180 E	A1173 S	A180 W
A				

Baseline				
Veh				PM (16-17)
AM (7-8)	A160	A180 E	A180 W	A160 A180 E A180 W
A160	0	140	538	A160 0 346 707
A180 E	447	0	0	A180 E 140 2 0
A180 W	817	0	1	A180 W 488 0 0

HGVs				
AM				PM
A160	A180 E	A180 W	A160 A180 E A180 W	
A160	0	20	393	A160 0 12 264
A180 E	12	0	0	A180 E 13 0 0
A180 W	234	0	0	A180 W 341 0 0

PCUs				
AM				PM
A160	A180 E	A180 W	A160 A180 E A180 W	
A160	0	166	1049	A160 0 362 1050
A180 E	463	0	0	A180 E 157 2 0
A180 W	1121	0	1	A180 W 931 0 0

Committed Development				
Veh				PM
AM	A160	A180 E	A180 W	A160 A180 E A180 W
A160		13	95	A160 43 231
A180 E	29			A180 E 15
A180 W	186			A180 W 121

HGVs				
AM				PM
A160	A180 E	A180 W	A160 A180 E A180 W	
A160			47	A160 63
A180 E				A180 E
A180 W	59			A180 W 66

PCUs				
AM				PM
A160	A180 E	A180 W	A160 A180 E A180 W	
A160	0	13	156	A160 0 43 313
A180 E	29	0	0	A180 E 15 0 0
A180 W	263	0	0	A180 W 207 0 0

Proposed Development				
Veh				PM
AM	A160	A180 E	A180 W	A160 A180 E A180 W
A160			8	A160 11
A180 E				A180 E
A180 W	13			A180 W 18

HGVs				
AM				PM
A160	A180 E	A180 W	A160 A180 E A180 W	
A160			6	A160 9
A180 E				A180 E
A180 W	12			A180 W 16

PCU				
AM (7-8)	Immingham			PM (16-18) Stena
A160	A180 E	A180 W	A160 A180 E A180 W	
A160	0	0	17	A160 0 0 23
A180 E	0	0	0	A180 E 0 0 0
A180 W	29	0	0	A180 W 38 0 0

North East Lincolnshire 001		
	2021-2025	2021-2032
AM	1.0298	1.0773
PM	1.0291	1.075

A160/ A180

2025 Baseline

PCU			
AM	A160	A180 E	A180 W
A160	0	171	1080
A180 E	476	0	0
A180 W	1155	0	1

HGV %			
AM	A160	A180 E	A180 W
A160		14%	73%
A180 E	3%		
A180 W	29%		0%

2025 Baseline + Committed

PCU			
AM	A160	A180 E	A180 W
A160	0	184	1237
A180 E	506	0	0
A180 W	1417	0	1

HGV %			
AM	A160	A180 E	A180 W
A160		13%	69%
A180 E	3%		
A180 W	29%		0%

2025 Baseline + Committed + Development

PCU			
AM	A160	A180 E	A180 W
A160	0	184	1253
A180 E	506	0	0
A180 W	1446	0	1

HGV %			
AM	A160	A180 E	A180 W
A160		13%	70%
A180 E	3%		
A180 W	30%		0%

PCU			
PM	A160	A180 E	A180 W
A160	0	372	1081
A180 E	161	2	0
A180 W	958	0	0

HGV %			
PM	A160	A180 E	A180 W
A160		3%	37%
A180 E	9%	0%	
A180 W	70%		

PCU			
PM	A160	A180 E	A180 W
A160	0	415	1393
A180 E	176	2	0
A180 W	1165	0	0

HGV %			
PM	A160	A180 E	A180 W
A160		3%	35%
A180 E	8%	0%	
A180 W	67%		

2032 Baseline

PCU			
AM	A160	A180 E	A180 W
A160	0	179	1130
A180 E	498	0	0
A180 W	1208	0	1

HGV %			
AM	A160	A180 E	A180 W
A160		14%	73%
A180 E	3%		
A180 W	29%		0%

2032 Baseline + Committed

PCU			
AM	A160	A180 E	A180 W
A160	0	192	1286
A180 E	528	0	0
A180 W	1471	0	1

HGV %			
AM	A160	A180 E	A180 W
A160		13%	69%
A180 E	3%		
A180 W	29%		0%

2032 Baseline + Committed + Development

PCU			
AM	A160	A180 E	A180 W
A160	0	192	1303
A180 E	528	0	0
A180 W	1499	0	1

HGV %			
AM	A160	A180 E	A180 W
A160		13%	70%
A180 E	3%		
A180 W	30%		0%

PCU			
PM	A160	A180 E	A180 W
A160	0	389	1129
A180 E	169	2	0
A180 W	1001	0	0

HGV %			
PM	A160	A180 E	A180 W
A160		3%	37%
A180 E	9%	0%	
A180 W	70%		

PCU			
PM	A160	A180 E	A180 W
A160	0	432	1442
A180 E	183	2	0
A180 W	1208	0	0

HGV %			
PM	A160	A180 E	A180 W
A160		3%	35%
A180 E	8%	0%	
A180 W	67%		

Appendix TN2 B

Queens Road/ Laporte Road Junction Assessment Results

<h1>Junctions 10</h1>
<h2>PICADY 10 - Priority Intersection Module</h2>
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Filename: Queens Road-Laporte Road.j10
Path: P:\23000's\23325\Junction Assessment\1 Base Assessment
Report generation date: 18/10/2023 15:24:58

- »2021 Base, AM
- »2021 Base, PM
- »2025 Base, AM
- »2025 Base, PM
- »2025 Base + Committed, AM
- »2025 Base + Committed, PM
- »2025 Base + Committed + Development, AM
- »2025 Base + Committed + Development, PM
- »2032 Base, AM
- »2032 Base, PM
- »2032 Base + Committed, AM
- »2032 Base + Committed, PM
- »2032 Base + Committed + Development, AM
- »2032 Base + Committed + Development, PM

Summary of junction performance

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Base						
Stream B-C	0.1	9.15	0.11	0.2	7.05	0.15
Stream B-A	1.0	13.50	0.48	0.2	11.99	0.14
Stream C-AB	0.1	6.13	0.07	0.1	6.71	0.06
2025 Base						
Stream B-C	0.2	9.34	0.11	0.2	7.13	0.15
Stream B-A	1.1	14.02	0.49	0.2	12.13	0.14
Stream C-AB	0.1	6.16	0.07	0.1	6.76	0.06
2025 Base + Committed						
Stream B-C	0.2	10.69	0.15	0.2	7.16	0.15
Stream B-A	1.2	14.59	0.51	0.2	11.95	0.14
Stream C-AB	0.1	6.67	0.08	0.1	6.82	0.06
2025 Base + Committed + Development						
Stream B-C	0.3	13.25	0.18	0.2	8.14	0.17
Stream B-A	1.8	20.96	0.62	0.4	13.40	0.22
Stream C-AB	0.1	7.02	0.09	0.1	7.35	0.07
2032 Base						
Stream B-C	0.2	9.68	0.12	0.2	7.25	0.16
Stream B-A	1.2	14.95	0.52	0.3	12.33	0.15
Stream C-AB	0.1	6.19	0.07	0.1	6.84	0.06
2032 Base + Committed						
Stream B-C	0.2	11.14	0.16	0.2	7.27	0.16
Stream B-A	1.3	15.58	0.53	0.3	12.40	0.15
Stream C-AB	0.1	6.71	0.09	0.1	6.90	0.06
2032 Base + Committed + Development						
Stream B-C	0.3	14.25	0.19	0.2	8.29	0.18
Stream B-A	2.1	23.08	0.65	0.4	13.73	0.23
Stream C-AB	0.1	7.07	0.09	0.1	7.44	0.07

Values shown are the highest values encountered over all time segments. Delay is the maximum value of Av. delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	18/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\Arcady
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

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	2021 Base	AM	ONE HOUR	06:45	08:15	15	✓
D2	2021 Base	PM	ONE HOUR	15:45	17:15	15	✓
D3	2025 Base	AM	ONE HOUR	06:45	08:15	15	✓
D4	2025 Base	PM	ONE HOUR	15:45	17:15	15	✓
D5	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D6	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D7	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D8	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓
D9	2032 Base	AM	ONE HOUR	06:45	08:15	15	✓
D10	2032 Base	PM	ONE HOUR	15:45	17:15	15	✓
D11	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D12	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D13	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D14	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2021 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		5.44	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.44	A

Arms

Arms

Arm	Name	Description	Arm type
A	East Gate		Major
B	Laporte Road		Minor
C	Queens Road		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Queens Road	10.40		✓	4.00	92.7	✓	12.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Laporte Road	One lane plus flare	10.00	9.75	6.01	4.53	4.13	✓	2.00	175	97

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	683	0.101	0.254	0.160	0.363
B-C	678	0.084	0.212	-	-
C-B	751	0.235	0.235	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set 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	2021 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - East Gate		ONE HOUR	✓	147	100.000
B - Laporte Road		ONE HOUR	✓	305	100.000
C - Queens Road		ONE HOUR	✓	313	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	46	101
	B - Laporte Road	252	0	53
	C - Queens Road	268	45	0

Vehicle Mix

HV %s

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	50	70
	B - Laporte Road	15	0	22
	C - Queens Road	19	13	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.11	9.15	0.1	A	49	73
B-A	0.48	13.50	1.0	B	231	347
C-AB	0.07	6.13	0.1	A	41	62
C-A					246	369
A-B					42	63
A-C					93	139

Main Results for each time segment

06:45 - 07:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	40	10	601	0.066	40	0.0	0.1	7.820	A
B-A	190	47	616	0.308	188	0.0	0.5	9.632	A
C-AB	34	8	725	0.047	34	0.0	0.1	5.886	A
C-A	202	50			202				
A-B	35	9			35				
A-C	76	19			76				

07:00 - 07:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	48	12	578	0.082	48	0.1	0.1	8.276	A
B-A	227	57	602	0.376	226	0.5	0.7	10.976	B
C-AB	40	10	720	0.056	40	0.1	0.1	5.989	A
C-A	241	60			241				
A-B	41	10			41				
A-C	91	23			91				

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	58	15	539	0.108	58	0.1	0.1	9.129	A
B-A	277	69	584	0.475	276	0.7	1.0	13.390	B
C-AB	50	12	713	0.070	49	0.1	0.1	6.135	A
C-A	295	74			295				
A-B	51	13			51				
A-C	111	28			111				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	58	15	538	0.108	58	0.1	0.1	9.153	A
B-A	277	69	584	0.475	277	1.0	1.0	13.501	B
C-AB	50	12	713	0.070	50	0.1	0.1	6.135	A
C-A	295	74			295				
A-B	51	13			51				
A-C	111	28			111				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	48	12	577	0.083	48	0.1	0.1	8.301	A
B-A	227	57	602	0.376	228	1.0	0.7	11.091	B
C-AB	40	10	720	0.056	41	0.1	0.1	5.993	A
C-A	241	60			241				
A-B	41	10			41				
A-C	91	23			91				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	40	10	600	0.067	40	0.1	0.1	7.851	A
B-A	190	47	616	0.308	190	0.7	0.5	9.756	A
C-AB	34	8	725	0.047	34	0.1	0.1	5.889	A
C-A	202	50			202				
A-B	35	9			35				
A-C	76	19			76				

2021 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		2.19	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.19	A

Traffic Demand

Demand Set 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	2021 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - East Gate		ONE HOUR	✓	479	100.000
B - Laporte Road		ONE HOUR	✓	151	100.000
C - Queens Road		ONE HOUR	✓	102	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	292	187
	B - Laporte Road	64	0	87
	C - Queens Road	69	33	0

Vehicle Mix

HV %s

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	19	19
	B - Laporte Road	49	0	9
	C - Queens Road	59	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.15	7.05	0.2	A	80	120
B-A	0.14	11.99	0.2	B	59	88
C-AB	0.06	6.71	0.1	A	30	45
C-A					63	95
A-B					268	402
A-C					172	257

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	65	16	685	0.096	65	0.0	0.1	6.323	A
B-A	48	12	549	0.088	48	0.0	0.1	10.680	B
C-AB	25	6	666	0.037	25	0.0	0.0	6.175	A
C-A	52	13			52				
A-B	220	55			220				
A-C	141	35			141				

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	78	20	671	0.117	78	0.1	0.1	6.613	A
B-A	58	14	536	0.107	57	0.1	0.2	11.201	B
C-AB	30	7	649	0.046	30	0.0	0.1	6.389	A
C-A	62	16			62				
A-B	263	66			263				
A-C	168	42			168				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	96	24	652	0.147	96	0.1	0.2	7.049	A
B-A	70	18	518	0.136	70	0.2	0.2	11.981	B
C-AB	36	9	627	0.058	36	0.1	0.1	6.708	A
C-A	76	19			76				
A-B	321	80			321				
A-C	206	51			206				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	96	24	652	0.147	96	0.2	0.2	7.054	A
B-A	70	18	518	0.136	70	0.2	0.2	11.993	B
C-AB	36	9	627	0.058	36	0.1	0.1	6.708	A
C-A	76	19			76				
A-B	321	80			321				
A-C	206	51			206				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	78	20	671	0.117	78	0.2	0.1	6.625	A
B-A	58	14	536	0.107	58	0.2	0.2	11.216	B
C-AB	30	7	649	0.046	30	0.1	0.1	6.390	A
C-A	62	16			62				
A-B	263	66			263				
A-C	168	42			168				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	65	16	685	0.096	66	0.1	0.1	6.338	A
B-A	48	12	549	0.088	48	0.2	0.1	10.707	B
C-AB	25	6	666	0.037	25	0.1	0.0	6.180	A
C-A	52	13			52				
A-B	220	55			220				
A-C	141	35			141				

2025 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		5.63	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.63	A

Traffic Demand

Demand Set 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	2025 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - East Gate		ONE HOUR	✓	152	100.000
B - Laporte Road		ONE HOUR	✓	314	100.000
C - Queens Road		ONE HOUR	✓	322	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	48	104
	B - Laporte Road	260	0	54
	C - Queens Road	276	46	0

Vehicle Mix

HV %s

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	50	70
	B - Laporte Road	15	0	22
	C - Queens Road	19	13	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.11	9.34	0.2	A	50	74
B-A	0.49	14.02	1.1	B	239	358
C-AB	0.07	6.16	0.1	A	42	63
C-A					253	380
A-B					44	66
A-C					95	143

Main Results for each time segment

06:45 - 07:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	41	10	597	0.068	40	0.0	0.1	7.880	A
B-A	196	49	614	0.319	194	0.0	0.5	9.804	A
C-AB	35	9	724	0.048	34	0.0	0.1	5.900	A
C-A	208	52			208				
A-B	36	9			36				
A-C	78	20			78				

07:00 - 07:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	49	12	573	0.085	48	0.1	0.1	8.369	A
B-A	234	58	600	0.389	233	0.5	0.7	11.250	B
C-AB	41	10	718	0.058	41	0.1	0.1	6.007	A
C-A	248	62			248				
A-B	43	11			43				
A-C	93	23			93				

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	59	15	531	0.112	59	0.1	0.2	9.310	A
B-A	286	72	581	0.493	285	0.7	1.1	13.896	B
C-AB	51	13	711	0.071	51	0.1	0.1	6.157	A
C-A	304	76			304				
A-B	53	13			53				
A-C	115	29			115				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	59	15	530	0.112	59	0.2	0.2	9.338	A
B-A	286	72	581	0.493	286	1.1	1.1	14.024	B
C-AB	51	13	711	0.071	51	0.1	0.1	6.157	A
C-A	304	76			304				
A-B	53	13			53				
A-C	115	29			115				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	49	12	572	0.085	49	0.2	0.1	8.396	A
B-A	234	58	600	0.389	235	1.1	0.7	11.385	B
C-AB	41	10	718	0.058	41	0.1	0.1	6.008	A
C-A	248	62			248				
A-B	43	11			43				
A-C	93	23			93				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	41	10	596	0.068	41	0.1	0.1	7.911	A
B-A	196	49	614	0.319	197	0.7	0.5	9.942	A
C-AB	35	9	724	0.048	35	0.1	0.1	5.903	A
C-A	208	52			208				
A-B	36	9			36				
A-C	78	20			78				

2025 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		2.22	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.22	A

Traffic Demand

Demand Set 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	2025 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - East Gate		ONE HOUR	✓	493	100.000
B - Laporte Road		ONE HOUR	✓	156	100.000
C - Queens Road		ONE HOUR	✓	105	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	301	192
	B - Laporte Road	66	0	90
	C - Queens Road	71	34	0

Vehicle Mix

HV %s

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	19	19
	B - Laporte Road	49	0	9
	C - Queens Road	59	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.15	7.13	0.2	A	83	124
B-A	0.14	12.13	0.2	B	61	91
C-AB	0.06	6.76	0.1	A	31	47
C-A					65	98
A-B					276	414
A-C					176	264

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	68	17	683	0.099	67	0.0	0.1	6.366	A
B-A	50	12	547	0.091	49	0.0	0.1	10.760	B
C-AB	26	6	663	0.039	25	0.0	0.0	6.206	A
C-A	53	13			53				
A-B	227	57			227				
A-C	145	36			145				

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	81	20	669	0.121	81	0.1	0.1	6.670	A
B-A	59	15	534	0.111	59	0.1	0.2	11.301	B
C-AB	31	8	646	0.047	31	0.0	0.1	6.429	A
C-A	64	16			64				
A-B	271	68			271				
A-C	173	43			173				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	99	25	649	0.153	99	0.1	0.2	7.129	A
B-A	73	18	515	0.141	72	0.2	0.2	12.122	B
C-AB	37	9	623	0.060	37	0.1	0.1	6.762	A
C-A	78	20			78				
A-B	331	83			331				
A-C	211	53			211				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	99	25	649	0.153	99	0.2	0.2	7.134	A
B-A	73	18	515	0.141	73	0.2	0.2	12.133	B
C-AB	37	9	623	0.060	37	0.1	0.1	6.762	A
C-A	78	20			78				
A-B	331	83			331				
A-C	211	53			211				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	81	20	669	0.121	81	0.2	0.2	6.679	A
B-A	59	15	534	0.111	60	0.2	0.2	11.319	B
C-AB	31	8	646	0.047	31	0.1	0.1	6.433	A
C-A	64	16			64				
A-B	271	68			271				
A-C	173	43			173				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	68	17	683	0.099	68	0.2	0.1	6.383	A
B-A	50	12	547	0.091	50	0.2	0.2	10.786	B
C-AB	26	6	663	0.039	26	0.1	0.0	6.209	A
C-A	53	13			53				
A-B	227	57			227				
A-C	145	36			145				

2025 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		5.89	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.89	A

Traffic Demand

Demand Set 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	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - East Gate		ONE HOUR	✓	171	100.000
B - Laporte Road		ONE HOUR	✓	332	100.000
C - Queens Road		ONE HOUR	✓	333	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	67	104
	B - Laporte Road	262	0	70
	C - Queens Road	280	53	0

Vehicle Mix

HV %s

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	30	70
	B - Laporte Road	14	0	33
	C - Queens Road	19	20	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.15	10.69	0.2	B	64	96
B-A	0.51	14.59	1.2	B	240	361
C-AB	0.08	6.67	0.1	A	49	73
C-A					257	385
A-B					61	92
A-C					95	143

Main Results for each time segment

06:45 - 07:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	53	13	599	0.088	52	0.0	0.1	8.744	A
B-A	197	49	604	0.326	195	0.0	0.5	9.974	A
C-AB	40	10	720	0.055	40	0.0	0.1	6.343	A
C-A	211	53			211				
A-B	50	13			50				
A-C	78	20			78				

07:00 - 07:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	63	16	573	0.110	63	0.1	0.2	9.386	A
B-A	236	59	590	0.399	235	0.5	0.7	11.528	B
C-AB	48	12	714	0.067	48	0.1	0.1	6.477	A
C-A	252	63			252				
A-B	60	15			60				
A-C	93	23			93				

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	77	19	526	0.147	77	0.2	0.2	10.653	B
B-A	288	72	570	0.507	287	0.7	1.1	14.439	B
C-AB	58	15	706	0.083	58	0.1	0.1	6.666	A
C-A	308	77			308				
A-B	74	18			74				
A-C	115	29			115				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	77	19	525	0.147	77	0.2	0.2	10.695	B
B-A	288	72	570	0.507	288	1.1	1.2	14.590	B
C-AB	58	15	706	0.083	58	0.1	0.1	6.666	A
C-A	308	77			308				
A-B	74	18			74				
A-C	115	29			115				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	63	16	571	0.110	63	0.2	0.2	9.426	A
B-A	236	59	590	0.399	237	1.2	0.8	11.682	B
C-AB	48	12	714	0.067	48	0.1	0.1	6.479	A
C-A	252	63			252				
A-B	60	15			60				
A-C	93	23			93				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	53	13	598	0.088	53	0.2	0.1	8.789	A
B-A	197	49	604	0.326	198	0.8	0.6	10.122	B
C-AB	40	10	720	0.055	40	0.1	0.1	6.351	A
C-A	211	53			211				
A-B	50	13			50				
A-C	78	20			78				

2025 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		2.15	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.15	A

Traffic Demand

Demand Set 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	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - East Gate		ONE HOUR	✓	512	100.000
B - Laporte Road		ONE HOUR	✓	156	100.000
C - Queens Road		ONE HOUR	✓	107	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	320	192
	B - Laporte Road	66	0	90
	C - Queens Road	73	34	0

Vehicle Mix

HV %s

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	17	19
	B - Laporte Road	46	0	9
	C - Queens Road	60	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.15	7.16	0.2	A	83	124
B-A	0.14	11.95	0.2	B	61	91
C-AB	0.06	6.82	0.1	A	31	47
C-A					67	100
A-B					294	440
A-C					176	264

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	68	17	682	0.099	67	0.0	0.1	6.380	A
B-A	50	12	546	0.091	49	0.0	0.1	10.573	B
C-AB	26	6	660	0.039	25	0.0	0.0	6.239	A
C-A	55	14			55				
A-B	241	60			241				
A-C	145	36			145				

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	81	20	667	0.121	81	0.1	0.1	6.688	A
B-A	59	15	532	0.112	59	0.1	0.2	11.116	B
C-AB	31	8	642	0.048	31	0.0	0.1	6.471	A
C-A	66	16			66				
A-B	288	72			288				
A-C	173	43			173				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	99	25	647	0.153	99	0.1	0.2	7.155	A
B-A	73	18	512	0.142	72	0.2	0.2	11.938	B
C-AB	37	9	618	0.061	37	0.1	0.1	6.819	A
C-A	80	20			80				
A-B	352	88			352				
A-C	211	53			211				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	99	25	647	0.153	99	0.2	0.2	7.160	A
B-A	73	18	512	0.142	73	0.2	0.2	11.949	B
C-AB	37	9	618	0.061	37	0.1	0.1	6.819	A
C-A	80	20			80				
A-B	352	88			352				
A-C	211	53			211				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	81	20	667	0.121	81	0.2	0.2	6.700	A
B-A	59	15	532	0.112	60	0.2	0.2	11.132	B
C-AB	31	8	642	0.048	31	0.1	0.1	6.475	A
C-A	66	16			66				
A-B	288	72			288				
A-C	173	43			173				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	68	17	681	0.099	68	0.2	0.1	6.395	A
B-A	50	12	546	0.091	50	0.2	0.1	10.601	B
C-AB	26	6	660	0.039	26	0.1	0.0	6.245	A
C-A	55	14			55				
A-B	241	60			241				
A-C	145	36			145				

2025 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		6.34	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.34	A

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - East Gate		ONE HOUR	✓	298	100.000
B - Laporte Road		ONE HOUR	✓	358	100.000
C - Queens Road		ONE HOUR	✓	501	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	93	205
	B - Laporte Road	288	0	70
	C - Queens Road	448	53	0

Vehicle Mix

HV %s

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	20	69
	B - Laporte Road	13	0	33
	C - Queens Road	36	20	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.18	13.25	0.3	B	64	96
B-A	0.62	20.96	1.8	C	264	396
C-AB	0.09	7.02	0.1	A	49	73
C-A					411	617
A-B					85	128
A-C					188	282

Main Results for each time segment

06:45 - 07:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	53	13	564	0.093	52	0.0	0.1	9.340	A
B-A	217	54	565	0.384	214	0.0	0.7	11.501	B
C-AB	40	10	698	0.057	40	0.0	0.1	6.559	A
C-A	337	84			337				
A-B	70	18			70				
A-C	154	39			154				

07:00 - 07:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	63	16	523	0.120	63	0.1	0.2	10.399	B
B-A	259	65	542	0.477	258	0.7	1.0	14.219	B
C-AB	48	12	688	0.069	48	0.1	0.1	6.749	A
C-A	403	101			403				
A-B	84	21			84				
A-C	184	46			184				

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	77	19	442	0.174	77	0.2	0.3	13.088	B
B-A	317	79	510	0.621	314	1.0	1.8	20.396	C
C-AB	58	15	673	0.087	58	0.1	0.1	7.022	A
C-A	493	123			493				
A-B	102	26			102				
A-C	226	56			226				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	77	19	439	0.176	77	0.3	0.3	13.246	B
B-A	317	79	510	0.621	317	1.8	1.8	20.960	C
C-AB	58	15	673	0.087	58	0.1	0.1	7.022	A
C-A	493	123			493				
A-B	102	26			102				
A-C	226	56			226				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	63	16	519	0.121	63	0.3	0.2	10.510	B
B-A	259	65	542	0.477	262	1.8	1.1	14.644	B
C-AB	48	12	688	0.069	48	0.1	0.1	6.754	A
C-A	403	101			403				
A-B	84	21			84				
A-C	184	46			184				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	53	13	562	0.094	53	0.2	0.1	9.413	A
B-A	217	54	565	0.384	218	1.1	0.7	11.773	B
C-AB	40	10	698	0.057	40	0.1	0.1	6.566	A
C-A	337	84			337				
A-B	70	18			70				
A-C	154	39			154				

2025 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		1.87	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.87	A

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - East Gate		ONE HOUR	✓	675	100.000
B - Laporte Road		ONE HOUR	✓	182	100.000
C - Queens Road		ONE HOUR	✓	331	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	346	329
	B - Laporte Road	92	0	90
	C - Queens Road	297	34	0

Vehicle Mix

HV %s

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	16	37
	B - Laporte Road	30	0	9
	C - Queens Road	78	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.17	8.14	0.2	A	83	124
B-A	0.22	13.40	0.4	B	84	127
C-AB	0.07	7.35	0.1	A	31	47
C-A					273	409
A-B					317	476
A-C					302	453

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	68	17	633	0.107	67	0.0	0.1	6.928	A
B-A	69	17	508	0.136	68	0.0	0.2	10.625	B
C-AB	26	6	631	0.041	25	0.0	0.0	6.536	A
C-A	224	56			224				
A-B	260	65			260				
A-C	248	62			248				

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	81	20	612	0.132	81	0.1	0.2	7.389	A
B-A	83	21	484	0.171	82	0.2	0.3	11.647	B
C-AB	31	8	608	0.050	31	0.0	0.1	6.858	A
C-A	267	67			267				
A-B	311	78			311				
A-C	296	74			296				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	99	25	581	0.170	99	0.2	0.2	8.128	A
B-A	101	25	450	0.225	101	0.3	0.4	13.375	B
C-AB	37	9	576	0.065	37	0.1	0.1	7.354	A
C-A	327	82			327				
A-B	381	95			381				
A-C	362	91			362				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	99	25	581	0.171	99	0.2	0.2	8.139	A
B-A	101	25	450	0.225	101	0.4	0.4	13.404	B
C-AB	37	9	576	0.065	37	0.1	0.1	7.354	A
C-A	327	82			327				
A-B	381	95			381				
A-C	362	91			362				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	81	20	611	0.132	81	0.2	0.2	7.405	A
B-A	83	21	484	0.171	83	0.4	0.3	11.680	B
C-AB	31	8	608	0.050	31	0.1	0.1	6.859	A
C-A	267	67			267				
A-B	311	78			311				
A-C	296	74			296				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	68	17	632	0.107	68	0.2	0.1	6.955	A
B-A	69	17	508	0.136	70	0.3	0.2	10.671	B
C-AB	26	6	631	0.041	26	0.1	0.0	6.542	A
C-A	224	56			224				
A-B	260	65			260				
A-C	248	62			248				

2032 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		5.96	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.96	A

Traffic Demand

Demand Set 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	2032 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - East Gate		ONE HOUR	✓	159	100.000
B - Laporte Road		ONE HOUR	✓	329	100.000
C - Queens Road		ONE HOUR	✓	337	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	50	109
	B - Laporte Road	272	0	57
	C - Queens Road	289	48	0

Vehicle Mix

HV %s

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	50	70
	B - Laporte Road	15	0	22
	C - Queens Road	19	13	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.12	9.68	0.2	A	52	78
B-A	0.52	14.95	1.2	B	250	374
C-AB	0.07	6.19	0.1	A	44	66
C-A					265	398
A-B					46	69
A-C					100	150

Main Results for each time segment

06:45 - 07:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	43	11	592	0.072	43	0.0	0.1	7.983	A
B-A	205	51	610	0.335	202	0.0	0.6	10.093	B
C-AB	36	9	722	0.050	36	0.0	0.1	5.924	A
C-A	218	54			218				
A-B	38	9			38				
A-C	82	21			82				

07:00 - 07:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	51	13	566	0.091	51	0.1	0.1	8.533	A
B-A	245	61	596	0.410	244	0.6	0.8	11.717	B
C-AB	43	11	717	0.060	43	0.1	0.1	6.036	A
C-A	260	65			260				
A-B	45	11			45				
A-C	98	24			98				

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	63	16	518	0.121	63	0.1	0.2	9.642	A
B-A	299	75	576	0.520	298	0.8	1.2	14.777	B
C-AB	53	13	709	0.074	53	0.1	0.1	6.194	A
C-A	318	80			318				
A-B	55	14			55				
A-C	120	30			120				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	63	16	516	0.122	63	0.2	0.2	9.679	A
B-A	299	75	576	0.520	299	1.2	1.2	14.946	B
C-AB	53	13	709	0.074	53	0.1	0.1	6.194	A
C-A	318	80			318				
A-B	55	14			55				
A-C	120	30			120				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	51	13	564	0.091	51	0.2	0.1	8.568	A
B-A	245	61	596	0.410	246	1.2	0.8	11.883	B
C-AB	43	11	717	0.060	43	0.1	0.1	6.037	A
C-A	260	65			260				
A-B	45	11			45				
A-C	98	24			98				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	43	11	591	0.073	43	0.1	0.1	8.019	A
B-A	205	51	610	0.335	206	0.8	0.6	10.252	B
C-AB	36	9	722	0.050	36	0.1	0.1	5.929	A
C-A	218	54			218				
A-B	38	9			38				
A-C	82	21			82				

2032 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		2.24	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.24	A

Traffic Demand

Demand Set 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	2032 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - East Gate		ONE HOUR	✓	515	100.000
B - Laporte Road		ONE HOUR	✓	162	100.000
C - Queens Road		ONE HOUR	✓	109	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	314	201
	B - Laporte Road	68	0	94
	C - Queens Road	74	35	0

Vehicle Mix

HV %s

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	19	19
	B - Laporte Road	49	0	9
	C - Queens Road	59	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.16	7.25	0.2	A	86	129
B-A	0.15	12.33	0.3	B	62	94
C-AB	0.06	6.84	0.1	A	32	48
C-A					68	102
A-B					288	432
A-C					184	277

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	71	18	681	0.104	70	0.0	0.1	6.421	A
B-A	51	13	544	0.094	51	0.0	0.2	10.864	B
C-AB	26	7	659	0.040	26	0.0	0.0	6.251	A
C-A	56	14			56				
A-B	236	59			236				
A-C	151	38			151				

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	85	21	666	0.127	84	0.1	0.2	6.747	A
B-A	61	15	530	0.115	61	0.2	0.2	11.443	B
C-AB	31	8	642	0.049	31	0.0	0.1	6.488	A
C-A	67	17			67				
A-B	282	71			282				
A-C	181	45			181				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	103	26	645	0.160	103	0.2	0.2	7.241	A
B-A	75	19	510	0.147	75	0.2	0.3	12.320	B
C-AB	39	10	617	0.062	38	0.1	0.1	6.841	A
C-A	81	20			81				
A-B	346	86			346				
A-C	221	55			221				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	103	26	645	0.160	103	0.2	0.2	7.245	A
B-A	75	19	510	0.147	75	0.3	0.3	12.332	B
C-AB	39	10	617	0.062	39	0.1	0.1	6.841	A
C-A	81	20			81				
A-B	346	86			346				
A-C	221	55			221				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	85	21	666	0.127	85	0.2	0.2	6.757	A
B-A	61	15	530	0.115	61	0.3	0.2	11.460	B
C-AB	31	8	642	0.049	32	0.1	0.1	6.489	A
C-A	67	17			67				
A-B	282	71			282				
A-C	181	45			181				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	71	18	680	0.104	71	0.2	0.1	6.442	A
B-A	51	13	544	0.094	51	0.2	0.2	10.896	B
C-AB	26	7	659	0.040	26	0.1	0.0	6.257	A
C-A	56	14			56				
A-B	236	59			236				
A-C	151	38			151				

2032 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		6.25	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.25	A

Traffic Demand

Demand Set 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	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - East Gate		ONE HOUR	✓	178	100.000
B - Laporte Road		ONE HOUR	✓	347	100.000
C - Queens Road		ONE HOUR	✓	347	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - East Gate	B - Laporte Road	C - Queens Road
A - East Gate	0	69	109
B - Laporte Road	274	0	73
C - Queens Road	292	55	0

Vehicle Mix

HV %s

From	To		
	A - East Gate	B - Laporte Road	C - Queens Road
A - East Gate	0	30	70
B - Laporte Road	14	0	33
C - Queens Road	19	20	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.16	11.14	0.2	B	67	100
B-A	0.53	15.58	1.3	C	251	377
C-AB	0.09	6.71	0.1	A	50	76
C-A					268	402
A-B					63	95
A-C					100	150

Main Results for each time segment

06:45 - 07:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	55	14	594	0.093	54	0.0	0.1	8.867	A
B-A	206	52	601	0.343	204	0.0	0.6	10.269	B
C-AB	41	10	719	0.058	41	0.0	0.1	6.368	A
C-A	220	55			220				
A-B	52	13			52				
A-C	82	21			82				

07:00 - 07:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	66	16	565	0.116	65	0.1	0.2	9.591	A
B-A	246	62	586	0.420	245	0.6	0.8	12.012	B
C-AB	49	12	713	0.069	49	0.1	0.1	6.509	A
C-A	263	66			263				
A-B	62	16			62				
A-C	98	24			98				

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	80	20	512	0.157	80	0.2	0.2	11.084	B
B-A	302	75	565	0.534	300	0.8	1.3	15.382	C
C-AB	61	15	705	0.086	60	0.1	0.1	6.707	A
C-A	321	80			321				
A-B	76	19			76				
A-C	120	30			120				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	80	20	510	0.158	80	0.2	0.2	11.139	B
B-A	302	75	565	0.534	302	1.3	1.3	15.581	C
C-AB	61	15	705	0.086	61	0.1	0.1	6.707	A
C-A	321	80			321				
A-B	76	19			76				
A-C	120	30			120				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	66	16	563	0.117	66	0.2	0.2	9.642	A
B-A	246	62	586	0.420	248	1.3	0.8	12.200	B
C-AB	49	12	713	0.069	50	0.1	0.1	6.514	A
C-A	263	66			263				
A-B	62	16			62				
A-C	98	24			98				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	55	14	592	0.093	55	0.2	0.1	8.920	A
B-A	206	52	601	0.343	207	0.8	0.6	10.440	B
C-AB	41	10	719	0.058	41	0.1	0.1	6.377	A
C-A	220	55			220				
A-B	52	13			52				
A-C	82	21			82				

2032 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		2.19	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.19	A

Traffic Demand

Demand Set 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	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - East Gate		ONE HOUR	✓	534	100.000
B - Laporte Road		ONE HOUR	✓	162	100.000
C - Queens Road		ONE HOUR	✓	111	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	333	201
	B - Laporte Road	68	0	94
	C - Queens Road	76	35	0

Vehicle Mix

HV %s

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	17	19
	B - Laporte Road	49	0	9
	C - Queens Road	60	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.16	7.27	0.2	A	86	129
B-A	0.15	12.40	0.3	B	62	94
C-AB	0.06	6.90	0.1	A	32	48
C-A					70	105
A-B					306	458
A-C					184	277

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	71	18	679	0.104	70	0.0	0.1	6.435	A
B-A	51	13	542	0.094	51	0.0	0.2	10.897	B
C-AB	26	7	656	0.040	26	0.0	0.0	6.285	A
C-A	57	14			57				
A-B	251	63			251				
A-C	151	38			151				

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	85	21	664	0.127	84	0.1	0.2	6.766	A
B-A	61	15	528	0.116	61	0.2	0.2	11.487	B
C-AB	31	8	638	0.049	31	0.0	0.1	6.531	A
C-A	68	17			68				
A-B	299	75			299				
A-C	181	45			181				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	103	26	643	0.161	103	0.2	0.2	7.267	A
B-A	75	19	508	0.148	75	0.2	0.3	12.385	B
C-AB	39	10	612	0.063	38	0.1	0.1	6.900	A
C-A	84	21			84				
A-B	367	92			367				
A-C	221	55			221				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	103	26	643	0.161	103	0.2	0.2	7.272	A
B-A	75	19	508	0.148	75	0.3	0.3	12.395	B
C-AB	39	10	612	0.063	39	0.1	0.1	6.900	A
C-A	84	21			84				
A-B	367	92			367				
A-C	221	55			221				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	85	21	664	0.127	85	0.2	0.2	6.779	A
B-A	61	15	528	0.116	61	0.3	0.2	11.504	B
C-AB	31	8	638	0.049	32	0.1	0.1	6.535	A
C-A	68	17			68				
A-B	299	75			299				
A-C	181	45			181				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	71	18	679	0.104	71	0.2	0.1	6.456	A
B-A	51	13	542	0.094	51	0.2	0.2	10.929	B
C-AB	26	7	656	0.040	26	0.1	0.0	6.291	A
C-A	57	14			57				
A-B	251	63			251				
A-C	151	38			151				

2032 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		7.00	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.00	A

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - East Gate		ONE HOUR	✓	304	100.000
B - Laporte Road		ONE HOUR	✓	373	100.000
C - Queens Road		ONE HOUR	✓	516	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	95	209
	B - Laporte Road	300	0	73
	C - Queens Road	461	55	0

Vehicle Mix

HV %s

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	20	69
	B - Laporte Road	13	0	33
	C - Queens Road	36	20	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.19	14.25	0.3	B	67	100
B-A	0.65	23.08	2.1	C	275	413
C-AB	0.09	7.07	0.1	A	50	76
C-A					423	635
A-B					87	131
A-C					192	288

Main Results for each time segment

06:45 - 07:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	55	14	558	0.099	54	0.0	0.1	9.499	A
B-A	226	56	562	0.402	223	0.0	0.7	11.895	B
C-AB	41	10	697	0.059	41	0.0	0.1	6.585	A
C-A	347	87			347				
A-B	72	18			72				
A-C	157	39			157				

07:00 - 07:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	66	16	512	0.128	65	0.1	0.2	10.714	B
B-A	270	67	539	0.501	268	0.7	1.1	14.964	B
C-AB	49	12	686	0.072	49	0.1	0.1	6.782	A
C-A	414	104			414				
A-B	85	21			85				
A-C	188	47			188				

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	80	20	421	0.191	80	0.2	0.3	14.015	B
B-A	330	83	506	0.653	327	1.1	2.0	22.286	C
C-AB	61	15	672	0.090	60	0.1	0.1	7.065	A
C-A	508	127			508				
A-B	105	26			105				
A-C	230	58			230				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	80	20	416	0.193	80	0.3	0.3	14.245	B
B-A	330	83	506	0.653	330	2.0	2.1	23.083	C
C-AB	61	15	672	0.090	61	0.1	0.1	7.065	A
C-A	508	127			508				
A-B	105	26			105				
A-C	230	58			230				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	66	16	508	0.129	66	0.3	0.2	10.856	B
B-A	270	67	539	0.501	273	2.1	1.2	15.523	C
C-AB	49	12	686	0.072	50	0.1	0.1	6.786	A
C-A	414	104			414				
A-B	85	21			85				
A-C	188	47			188				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	55	14	555	0.099	55	0.2	0.1	9.582	A
B-A	226	56	562	0.402	227	1.2	0.8	12.216	B
C-AB	41	10	697	0.059	41	0.1	0.1	6.594	A
C-A	347	87			347				
A-B	72	18			72				
A-C	157	39			157				

2032 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		1.92	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.92	A

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - East Gate		ONE HOUR	✓	696	100.000
B - Laporte Road		ONE HOUR	✓	189	100.000
C - Queens Road		ONE HOUR	✓	335	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	359	337
	B - Laporte Road	95	0	94
	C - Queens Road	300	35	0

Vehicle Mix

HV %s

		To		
		A - East Gate	B - Laporte Road	C - Queens Road
From	A - East Gate	0	16	37
	B - Laporte Road	30	0	9
	C - Queens Road	78	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.18	8.29	0.2	A	86	129
B-A	0.23	13.73	0.4	B	87	131
C-AB	0.07	7.44	0.1	A	32	48
C-A					275	413
A-B					329	494
A-C					309	464

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	71	18	631	0.112	70	0.0	0.1	6.994	A
B-A	72	18	505	0.142	71	0.0	0.2	10.767	B
C-AB	26	7	627	0.042	26	0.0	0.0	6.585	A
C-A	226	56			226				
A-B	270	68			270				
A-C	254	63			254				

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	85	21	609	0.139	84	0.1	0.2	7.483	A
B-A	85	21	480	0.178	85	0.2	0.3	11.847	B
C-AB	31	8	603	0.052	31	0.0	0.1	6.922	A
C-A	270	67			270				
A-B	323	81			323				
A-C	303	76			303				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	103	26	577	0.179	103	0.2	0.2	8.273	A
B-A	105	26	445	0.235	104	0.3	0.4	13.693	B
C-AB	39	10	570	0.068	38	0.1	0.1	7.444	A
C-A	330	83			330				
A-B	395	99			395				
A-C	371	93			371				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	103	26	577	0.179	103	0.2	0.2	8.287	A
B-A	105	26	445	0.235	105	0.4	0.4	13.729	B
C-AB	39	10	570	0.068	39	0.1	0.1	7.444	A
C-A	330	83			330				
A-B	395	99			395				
A-C	371	93			371				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	85	21	608	0.139	85	0.2	0.2	7.503	A
B-A	85	21	480	0.178	86	0.4	0.3	11.885	B
C-AB	31	8	603	0.052	32	0.1	0.1	6.923	A
C-A	270	67			270				
A-B	323	81			323				
A-C	303	76			303				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	71	18	630	0.112	71	0.2	0.1	7.019	A
B-A	72	18	505	0.142	72	0.3	0.2	10.814	B
C-AB	26	7	627	0.042	26	0.1	0.0	6.591	A
C-A	226	56			226				
A-B	270	68			270				
A-C	254	63			254				

Appendix TN2 C

Laporte Road/ Kiln Lane/ Hobson Way Junction Assessment Results

<h1>Junctions 10</h1>
<h2>ARCADY 10 - Roundabout Module</h2>
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Filename: Laporte Road-Kiln Lane-Hobson Way.j10
Path: P:\23000's\23325\Junction Assessment\1 Base Assessment
Report generation date: 18/10/2023 15:40:53

- »2021 Base, AM
- »2021 Base, PM
- »2025 Base, AM
- »2025 Base, PM
- »2025 Base + Committed, AM
- »2025 Base + Committed, PM
- »2025 Base + Committed + Development, AM
- »2025 Base + Committed + Development, PM
- »2032 Base, AM
- »2032 Base, PM
- »2032 Base + Committed, AM
- »2032 Base + Committed, PM
- »2032 Base + Committed + Development, AM
- »2032 Base + Committed + Development, PM

Summary of junction performance

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Base						
A - Air Products Access	0.0	0.00	0.00	0.0	0.00	0.00
B - Hobson Way	0.3	2.37	0.22	0.2	2.50	0.12
C - Kiln Lane	0.3	2.95	0.19	0.1	2.61	0.10
D - Laporte Road	0.1	2.46	0.05	0.4	2.59	0.27
2025 Base						
A - Air Products Access	0.0	0.00	0.00	0.0	0.00	0.00
B - Hobson Way	0.3	2.39	0.22	0.2	2.51	0.13
C - Kiln Lane	0.3	2.98	0.19	0.1	2.62	0.10
D - Laporte Road	0.1	2.47	0.05	0.4	2.62	0.28
2025 Base + Committed						
A - Air Products Access	0.0	0.00	0.00	0.0	0.00	0.00
B - Hobson Way	0.5	2.84	0.28	0.2	2.86	0.16
C - Kiln Lane	0.5	3.64	0.28	0.2	2.94	0.13
D - Laporte Road	0.1	2.39	0.06	0.5	2.64	0.29
2025 Base + Committed + Development						
A - Air Products Access	0.0	0.00	0.00	0.0	0.00	0.00
B - Hobson Way	0.5	2.89	0.30	0.3	2.84	0.18
C - Kiln Lane	0.5	3.69	0.28	0.2	2.98	0.14
D - Laporte Road	0.1	2.29	0.07	0.5	2.68	0.30
2032 Base						
A - Air Products Access	0.0	0.00	0.00	0.0	0.00	0.00
B - Hobson Way	0.3	2.42	0.23	0.2	2.54	0.13
C - Kiln Lane	0.3	3.03	0.20	0.2	2.64	0.11
D - Laporte Road	0.1	2.48	0.05	0.5	2.67	0.29
2032 Base + Committed						
A - Air Products Access	0.0	0.00	0.00	0.0	0.00	0.00
B - Hobson Way	0.5	2.88	0.29	0.3	2.90	0.17
C - Kiln Lane	0.5	3.70	0.29	0.2	2.95	0.14
D - Laporte Road	0.1	2.40	0.06	0.5	2.69	0.30
2032 Base + Committed + Development						
A - Air Products Access	0.0	0.00	0.00	0.0	0.00	0.00
B - Hobson Way	0.5	2.92	0.30	0.3	2.88	0.18
C - Kiln Lane	0.5	3.76	0.29	0.2	2.99	0.14
D - Laporte Road	0.1	2.30	0.08	0.5	2.74	0.32

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 Av. delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	18/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\Arcady
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

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	2021 Base	AM	ONE HOUR	06:45	08:15	15	✓
D2	2021 Base	PM	ONE HOUR	15:45	17:15	15	✓
D3	2025 Base	AM	ONE HOUR	06:45	08:15	15	✓
D4	2025 Base	PM	ONE HOUR	15:45	17:15	15	✓
D5	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D6	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D7	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D8	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓
D9	2032 Base	AM	ONE HOUR	06:45	08:15	15	✓
D10	2032 Base	PM	ONE HOUR	15:45	17:15	15	✓
D11	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D12	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D13	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D14	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2021 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Hobson Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Kiln Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - Laporte Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	2.60	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.60	A

Arms

Arms

Arm	Name	Description	No give-way line
A	Air Products Access		
B	Hobson Way		
C	Kiln Lane		
D	Laporte Road		

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
A - Air Products Access	3.67	5.63	16.4	10.6	50.4	40.0		
B - Hobson Way	3.77	7.52	35.1	37.7	50.4	14.0		
C - Kiln Lane	3.79	7.69	41.9	17.3	50.4	28.0		
D - Laporte Road	5.36	7.90	54.4	19.1	50.4	37.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Air Products Access	0.532	1422
B - Hobson Way	0.713	2146
C - Kiln Lane	0.674	2057
D - Laporte Road	0.699	2232

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	2021 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Air Products Access		ONE HOUR	✓	2	100.000
B - Hobson Way		ONE HOUR	✓	420	100.000
C - Kiln Lane		ONE HOUR	✓	314	100.000
D - Laporte Road		ONE HOUR	✓	91	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
From	A - Air Products Access	0	1	1	0
	B - Hobson Way	0	0	111	309
	C - Kiln Lane	1	96	2	215
	D - Laporte Road	0	47	44	0

Vehicle Mix

HV %s

		To			
		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
From	A - Air Products Access	0	0	0	0
	B - Hobson Way	0	0	16	6
	C - Kiln Lane	0	23	0	21
	D - Laporte Road	0	18	77	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Air Products Access	0.00	0.00	0.0	A	0	0
B - Hobson Way	0.22	2.37	0.3	A	385	578
C - Kiln Lane	0.19	2.95	0.3	A	288	432
D - Laporte Road	0.05	2.46	0.1	A	84	125

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	142	1346	0.000	0	0.75	0.0	0.0	0.000	A
B - Hobson Way	316	79	35	2121	0.149	315	107	0.0	0.2	2.161	A
C - Kiln Lane	236	59	232	1901	0.124	236	118	0.0	0.2	2.622	A
D - Laporte Road	69	17	74	2180	0.031	68	393	0.0	0.0	2.397	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	170	1332	0.000	0	0.90	0.0	0.0	0.000	A
B - Hobson Way	378	94	41	2116	0.178	377	128	0.2	0.2	2.245	A
C - Kiln Lane	282	71	278	1870	0.151	282	141	0.2	0.2	2.750	A
D - Laporte Road	82	20	89	2170	0.038	82	471	0.0	0.1	2.424	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	208	1311	0.000	0	1	0.0	0.0	0.000	A
B - Hobson Way	462	116	51	2109	0.219	462	157	0.2	0.3	2.370	A
C - Kiln Lane	346	86	340	1828	0.189	345	173	0.2	0.3	2.946	A
D - Laporte Road	100	25	109	2156	0.046	100	577	0.1	0.1	2.462	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	208	1311	0.000	0	1	0.0	0.0	0.000	A
B - Hobson Way	462	116	51	2109	0.219	462	157	0.3	0.3	2.370	A
C - Kiln Lane	346	86	340	1828	0.189	346	173	0.3	0.3	2.946	A
D - Laporte Road	100	25	109	2156	0.046	100	577	0.1	0.1	2.463	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	170	1332	0.000	0	0.90	0.0	0.0	0.000	A
B - Hobson Way	378	94	41	2116	0.178	378	129	0.3	0.2	2.246	A
C - Kiln Lane	282	71	278	1870	0.151	283	141	0.3	0.2	2.754	A
D - Laporte Road	82	20	89	2170	0.038	82	471	0.1	0.1	2.426	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	142	1346	0.000	0	0.75	0.0	0.0	0.000	A
B - Hobson Way	316	79	35	2121	0.149	316	108	0.2	0.2	2.163	A
C - Kiln Lane	236	59	233	1900	0.124	237	118	0.2	0.2	2.627	A
D - Laporte Road	69	17	75	2180	0.031	69	395	0.1	0.0	2.398	A

2021 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Hobson Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Kiln Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - Laporte Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	2.57	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.57	A

Traffic Demand

Demand Set 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	2021 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Air Products Access		ONE HOUR	✓	4	100.000
B - Hobson Way		ONE HOUR	✓	217	100.000
C - Kiln Lane		ONE HOUR	✓	181	100.000
D - Laporte Road		ONE HOUR	✓	531	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
From	A - Air Products Access	0	0	4	0
	B - Hobson Way	0	0	143	74
	C - Kiln Lane	0	114	5	62
	D - Laporte Road	0	295	236	0

Vehicle Mix

HV %s

		To			
From		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
	A - Air Products Access	0	0	0	0
	B - Hobson Way	0	0	24	11
	C - Kiln Lane	0	16	25	72
	D - Laporte Road	0	5	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Air Products Access	0.00	0.00	0.0	A	0	0
B - Hobson Way	0.12	2.50	0.2	A	199	299
C - Kiln Lane	0.10	2.61	0.1	A	166	249
D - Laporte Road	0.27	2.59	0.4	A	487	731

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	488	1162	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	163	41	181	2016	0.081	163	307	0.0	0.1	2.315	A
C - Kiln Lane	136	34	56	2020	0.067	136	288	0.0	0.1	2.500	A
D - Laporte Road	400	100	89	2170	0.184	399	102	0.0	0.3	2.274	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	584	1111	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	195	49	217	1991	0.098	195	367	0.1	0.1	2.389	A
C - Kiln Lane	163	41	66	2012	0.081	163	345	0.1	0.1	2.546	A
D - Laporte Road	477	119	107	2157	0.221	477	122	0.3	0.3	2.398	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	715	1042	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	239	60	265	1956	0.122	239	450	0.1	0.2	2.498	A
C - Kiln Lane	199	50	81	2002	0.100	199	423	0.1	0.1	2.612	A
D - Laporte Road	585	146	131	2141	0.273	584	150	0.3	0.4	2.589	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	716	1041	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	239	60	265	1956	0.122	239	450	0.2	0.2	2.498	A
C - Kiln Lane	199	50	81	2002	0.100	199	423	0.1	0.1	2.612	A
D - Laporte Road	585	146	131	2141	0.273	585	150	0.4	0.4	2.589	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	585	1111	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	195	49	217	1991	0.098	195	368	0.2	0.1	2.392	A
C - Kiln Lane	163	41	67	2012	0.081	163	345	0.1	0.1	2.546	A
D - Laporte Road	477	119	107	2157	0.221	478	122	0.4	0.3	2.399	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	490	1162	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	163	41	182	2016	0.081	163	308	0.1	0.1	2.318	A
C - Kiln Lane	136	34	56	2020	0.067	136	289	0.1	0.1	2.502	A
D - Laporte Road	400	100	90	2169	0.184	400	102	0.3	0.3	2.279	A

2025 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Hobson Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Kiln Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - Laporte Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	2.62	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.62	A

Traffic Demand

Demand Set 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	2025 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Air Products Access		ONE HOUR	✓	2	100.000
B - Hobson Way		ONE HOUR	✓	430	100.000
C - Kiln Lane		ONE HOUR	✓	322	100.000
D - Laporte Road		ONE HOUR	✓	93	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
From	A - Air Products Access	0	1	1	0
	B - Hobson Way	0	0	113	317
	C - Kiln Lane	1	99	2	220
	D - Laporte Road	0	48	45	0

Vehicle Mix

HV %s

		To			
From		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
	A - Air Products Access	0	0	0	0
	B - Hobson Way	0	0	16	6
	C - Kiln Lane	0	23	0	21
	D - Laporte Road	0	18	77	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Air Products Access	0.00	0.00	0.0	A	0	0
B - Hobson Way	0.22	2.39	0.3	A	395	592
C - Kiln Lane	0.19	2.98	0.3	A	295	443
D - Laporte Road	0.05	2.47	0.1	A	85	128

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	146	1344	0.000	0	0.75	0.0	0.0	0.000	A
B - Hobson Way	324	81	35	2120	0.153	323	110	0.0	0.2	2.171	A
C - Kiln Lane	242	61	238	1897	0.128	242	120	0.0	0.2	2.638	A
D - Laporte Road	70	18	77	2179	0.032	70	403	0.0	0.0	2.401	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	174	1329	0.000	0	0.90	0.0	0.0	0.000	A
B - Hobson Way	387	97	42	2115	0.183	386	132	0.2	0.2	2.258	A
C - Kiln Lane	289	72	285	1865	0.155	289	144	0.2	0.2	2.771	A
D - Laporte Road	84	21	92	2168	0.039	84	482	0.0	0.1	2.429	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	213	1308	0.000	0	1	0.0	0.0	0.000	A
B - Hobson Way	473	118	52	2109	0.225	473	162	0.2	0.3	2.387	A
C - Kiln Lane	355	89	349	1822	0.195	354	176	0.2	0.3	2.976	A
D - Laporte Road	102	26	112	2154	0.048	102	591	0.1	0.1	2.468	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	214	1308	0.000	0	1	0.0	0.0	0.000	A
B - Hobson Way	473	118	52	2109	0.225	473	162	0.3	0.3	2.387	A
C - Kiln Lane	355	89	349	1822	0.195	355	176	0.3	0.3	2.976	A
D - Laporte Road	102	26	112	2154	0.048	102	591	0.1	0.1	2.468	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	175	1329	0.000	0	0.90	0.0	0.0	0.000	A
B - Hobson Way	387	97	42	2115	0.183	387	132	0.3	0.2	2.260	A
C - Kiln Lane	289	72	285	1865	0.155	290	144	0.3	0.2	2.775	A
D - Laporte Road	84	21	92	2168	0.039	84	483	0.1	0.1	2.429	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	146	1344	0.000	0	0.75	0.0	0.0	0.000	A
B - Hobson Way	324	81	35	2120	0.153	324	111	0.2	0.2	2.173	A
C - Kiln Lane	242	61	239	1896	0.128	243	121	0.2	0.2	2.641	A
D - Laporte Road	70	18	77	2178	0.032	70	405	0.1	0.0	2.401	A

2025 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Hobson Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Kiln Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - Laporte Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	2.59	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.59	A

Traffic Demand

Demand Set 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	2025 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Air Products Access		ONE HOUR	✓	4	100.000
B - Hobson Way		ONE HOUR	✓	222	100.000
C - Kiln Lane		ONE HOUR	✓	184	100.000
D - Laporte Road		ONE HOUR	✓	544	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
From	A - Air Products Access	0	0	4	0
	B - Hobson Way	0	0	146	76
	C - Kiln Lane	0	116	5	63
	D - Laporte Road	0	302	242	0

Vehicle Mix

HV %s

		To			
From		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
	A - Air Products Access	0	0	0	0
	B - Hobson Way	0	0	24	11
	C - Kiln Lane	0	16	25	72
	D - Laporte Road	0	5	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Air Products Access	0.00	0.00	0.0	A	0	0
B - Hobson Way	0.13	2.51	0.2	A	204	306
C - Kiln Lane	0.10	2.62	0.1	A	169	253
D - Laporte Road	0.28	2.62	0.4	A	499	749

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	499	1156	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	167	42	185	2013	0.083	167	314	0.0	0.1	2.324	A
C - Kiln Lane	139	35	57	2019	0.069	138	295	0.0	0.1	2.504	A
D - Laporte Road	410	102	91	2169	0.189	409	104	0.0	0.3	2.288	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	597	1104	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	200	50	222	1987	0.100	199	376	0.1	0.1	2.400	A
C - Kiln Lane	165	41	68	2011	0.082	165	353	0.1	0.1	2.551	A
D - Laporte Road	489	122	109	2156	0.227	489	125	0.3	0.3	2.416	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	732	1033	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	244	61	272	1952	0.125	244	460	0.1	0.2	2.513	A
C - Kiln Lane	203	51	84	2001	0.101	202	432	0.1	0.1	2.618	A
D - Laporte Road	599	150	133	2139	0.280	599	153	0.3	0.4	2.616	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	732	1033	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	244	61	272	1952	0.125	244	460	0.2	0.2	2.513	A
C - Kiln Lane	203	51	84	2001	0.101	203	433	0.1	0.1	2.618	A
D - Laporte Road	599	150	133	2139	0.280	599	153	0.4	0.4	2.616	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	598	1104	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	200	50	222	1987	0.100	200	376	0.2	0.1	2.401	A
C - Kiln Lane	165	41	68	2011	0.082	166	354	0.1	0.1	2.551	A
D - Laporte Road	489	122	109	2156	0.227	489	125	0.4	0.3	2.418	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	501	1156	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	167	42	186	2013	0.083	167	315	0.1	0.1	2.325	A
C - Kiln Lane	139	35	57	2019	0.069	139	296	0.1	0.1	2.504	A
D - Laporte Road	410	102	91	2168	0.189	410	105	0.3	0.3	2.291	A

2025 Base + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Hobson Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Kiln Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - Laporte Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	3.12	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.12	A

Traffic Demand

Demand Set 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	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Air Products Access		ONE HOUR	✓	2	100.000
B - Hobson Way		ONE HOUR	✓	533	100.000
C - Kiln Lane		ONE HOUR	✓	459	100.000
D - Laporte Road		ONE HOUR	✓	119	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
From	A - Air Products Access	0	1	1	0
	B - Hobson Way	0	0	216	317
	C - Kiln Lane	1	131	2	325
	D - Laporte Road	0	48	71	0

Vehicle Mix

HV %s

		To			
From		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
	A - Air Products Access	0	0	0	0
	B - Hobson Way	0	0	44	6
	C - Kiln Lane	0	25	0	37
	D - Laporte Road	0	18	45	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Air Products Access	0.00	0.00	0.0	A	0	0
B - Hobson Way	0.28	2.84	0.5	A	489	734
C - Kiln Lane	0.28	3.64	0.5	A	421	632
D - Laporte Road	0.06	2.39	0.1	A	109	164

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	189	1321	0.000	0	0.75	0.0	0.0	0.000	A
B - Hobson Way	401	100	55	2106	0.191	400	134	0.0	0.3	2.503	A
C - Kiln Lane	346	86	238	1897	0.182	344	217	0.0	0.3	3.083	A
D - Laporte Road	90	22	101	2162	0.041	89	482	0.0	0.1	2.305	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	226	1302	0.000	0	0.90	0.0	0.0	0.000	A
B - Hobson Way	479	120	66	2099	0.228	479	161	0.3	0.3	2.637	A
C - Kiln Lane	413	103	285	1865	0.221	412	260	0.3	0.4	3.295	A
D - Laporte Road	107	27	120	2148	0.050	107	577	0.1	0.1	2.341	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	277	1275	0.000	0	1	0.0	0.0	0.000	A
B - Hobson Way	587	147	80	2088	0.281	586	197	0.3	0.5	2.845	A
C - Kiln Lane	505	126	349	1822	0.277	505	318	0.4	0.5	3.632	A
D - Laporte Road	131	33	147	2129	0.062	131	706	0.1	0.1	2.391	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	277	1274	0.000	0	1	0.0	0.0	0.000	A
B - Hobson Way	587	147	80	2088	0.281	587	197	0.5	0.5	2.845	A
C - Kiln Lane	505	126	349	1822	0.277	505	318	0.5	0.5	3.636	A
D - Laporte Road	131	33	148	2129	0.062	131	707	0.1	0.1	2.391	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	227	1301	0.000	0	0.90	0.0	0.0	0.000	A
B - Hobson Way	479	120	66	2099	0.228	480	161	0.5	0.4	2.641	A
C - Kiln Lane	413	103	285	1865	0.221	413	260	0.5	0.4	3.298	A
D - Laporte Road	107	27	121	2148	0.050	107	578	0.1	0.1	2.343	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	190	1321	0.000	0	0.75	0.0	0.0	0.000	A
B - Hobson Way	401	100	55	2106	0.191	402	135	0.4	0.3	2.508	A
C - Kiln Lane	346	86	239	1896	0.182	346	218	0.4	0.3	3.091	A
D - Laporte Road	90	22	101	2162	0.041	90	484	0.1	0.1	2.308	A

2025 Base + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Hobson Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Kiln Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - Laporte Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	2.77	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.77	A

Traffic Demand

Demand Set 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	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Air Products Access		ONE HOUR	✓	4	100.000
B - Hobson Way		ONE HOUR	✓	281	100.000
C - Kiln Lane		ONE HOUR	✓	243	100.000
D - Laporte Road		ONE HOUR	✓	563	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
From	A - Air Products Access	0	0	4	0
	B - Hobson Way	0	0	205	76
	C - Kiln Lane	0	116	5	122
	D - Laporte Road	0	302	261	0

Vehicle Mix

HV %s

		To			
From		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
	A - Air Products Access	0	0	0	0
	B - Hobson Way	0	0	38	11
	C - Kiln Lane	0	16	25	81
	D - Laporte Road	0	5	20	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Air Products Access	0.00	0.00	0.0	A	0	0
B - Hobson Way	0.16	2.86	0.2	A	258	387
C - Kiln Lane	0.13	2.94	0.2	A	223	334
D - Laporte Road	0.29	2.64	0.5	A	517	775

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	514	1149	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	212	53	200	2003	0.106	211	314	0.0	0.2	2.601	A
C - Kiln Lane	183	46	57	2019	0.091	182	354	0.0	0.1	2.779	A
D - Laporte Road	424	106	91	2169	0.195	423	149	0.0	0.3	2.297	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	615	1095	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	253	63	239	1975	0.128	252	376	0.2	0.2	2.705	A
C - Kiln Lane	218	55	68	2011	0.109	218	423	0.1	0.2	2.846	A
D - Laporte Road	506	127	109	2156	0.235	506	178	0.3	0.3	2.431	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	753	1022	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	309	77	293	1937	0.160	309	460	0.2	0.2	2.863	A
C - Kiln Lane	268	67	84	2001	0.134	267	518	0.2	0.2	2.943	A
D - Laporte Road	620	155	133	2139	0.290	619	218	0.3	0.5	2.640	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	753	1021	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	309	77	293	1937	0.160	309	460	0.2	0.2	2.863	A
C - Kiln Lane	268	67	84	2001	0.134	268	519	0.2	0.2	2.943	A
D - Laporte Road	620	155	133	2139	0.290	620	218	0.5	0.5	2.640	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	615	1095	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	253	63	239	1975	0.128	253	376	0.2	0.2	2.708	A
C - Kiln Lane	218	55	68	2011	0.109	219	424	0.2	0.2	2.849	A
D - Laporte Road	506	127	109	2156	0.235	507	178	0.5	0.3	2.432	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	515	1148	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	212	53	200	2003	0.106	212	315	0.2	0.2	2.602	A
C - Kiln Lane	183	46	57	2019	0.091	183	355	0.2	0.1	2.782	A
D - Laporte Road	424	106	91	2168	0.195	424	149	0.3	0.3	2.302	A

2025 Base + Committed + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Hobson Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Kiln Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - Laporte Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	3.13	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.13	A

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Air Products Access		ONE HOUR	✓	2	100.000
B - Hobson Way		ONE HOUR	✓	560	100.000
C - Kiln Lane		ONE HOUR	✓	459	100.000
D - Laporte Road		ONE HOUR	✓	145	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
From	A - Air Products Access	0	1	1	0
	B - Hobson Way	0	0	216	344
	C - Kiln Lane	1	131	2	325
	D - Laporte Road	0	74	71	0

Vehicle Mix

HV %s

		To			
From		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
	A - Air Products Access	0	0	0	0
	B - Hobson Way	0	0	44	6
	C - Kiln Lane	0	25	0	37
	D - Laporte Road	0	11	45	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Air Products Access	0.00	0.00	0.0	A	0	0
B - Hobson Way	0.30	2.89	0.5	A	514	771
C - Kiln Lane	0.28	3.69	0.5	A	421	632
D - Laporte Road	0.07	2.29	0.1	A	133	200

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	209	1311	0.000	0	0.75	0.0	0.0	0.000	A
B - Hobson Way	422	105	55	2106	0.200	420	154	0.0	0.3	2.519	A
C - Kiln Lane	346	86	258	1883	0.183	344	217	0.0	0.3	3.111	A
D - Laporte Road	109	27	101	2162	0.051	109	502	0.0	0.1	2.198	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	250	1289	0.000	0	0.90	0.0	0.0	0.000	A
B - Hobson Way	503	126	66	2099	0.240	503	184	0.3	0.4	2.662	A
C - Kiln Lane	413	103	309	1849	0.223	412	260	0.3	0.4	3.333	A
D - Laporte Road	130	33	120	2148	0.061	130	601	0.1	0.1	2.237	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	306	1259	0.000	0	1	0.0	0.0	0.000	A
B - Hobson Way	617	154	80	2088	0.295	616	226	0.4	0.5	2.886	A
C - Kiln Lane	505	126	378	1802	0.280	505	318	0.4	0.5	3.688	A
D - Laporte Road	160	40	147	2129	0.075	160	736	0.1	0.1	2.291	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	306	1259	0.000	0	1	0.0	0.0	0.000	A
B - Hobson Way	617	154	80	2088	0.295	617	226	0.5	0.5	2.886	A
C - Kiln Lane	505	126	379	1802	0.280	505	318	0.5	0.5	3.692	A
D - Laporte Road	160	40	148	2129	0.075	160	737	0.1	0.1	2.291	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	250	1289	0.000	0	0.90	0.0	0.0	0.000	A
B - Hobson Way	503	126	66	2099	0.240	504	184	0.5	0.4	2.666	A
C - Kiln Lane	413	103	310	1849	0.223	413	260	0.5	0.4	3.339	A
D - Laporte Road	130	33	121	2148	0.061	130	602	0.1	0.1	2.237	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	209	1311	0.000	0	0.75	0.0	0.0	0.000	A
B - Hobson Way	422	105	55	2106	0.200	422	154	0.4	0.3	2.522	A
C - Kiln Lane	346	86	259	1883	0.184	346	218	0.4	0.3	3.118	A
D - Laporte Road	109	27	101	2162	0.051	109	504	0.1	0.1	2.201	A

2025 Base + Committed + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Hobson Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Kiln Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - Laporte Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	2.79	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.79	A

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Air Products Access		ONE HOUR	✓	4	100.000
B - Hobson Way		ONE HOUR	✓	308	100.000
C - Kiln Lane		ONE HOUR	✓	243	100.000
D - Laporte Road		ONE HOUR	✓	589	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
From	A - Air Products Access	0	0	4	0
	B - Hobson Way	0	0	205	103
	C - Kiln Lane	0	116	5	122
	D - Laporte Road	0	328	261	0

Vehicle Mix

HV %s

		To			
From		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
	A - Air Products Access	0	0	0	0
	B - Hobson Way	0	0	38	8
	C - Kiln Lane	0	16	25	81
	D - Laporte Road	0	5	20	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Air Products Access	0.00	0.00	0.0	A	0	0
B - Hobson Way	0.18	2.84	0.3	A	283	424
C - Kiln Lane	0.14	2.98	0.2	A	223	334
D - Laporte Road	0.30	2.68	0.5	A	540	811

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	533	1138	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	232	58	200	2003	0.116	231	333	0.0	0.2	2.565	A
C - Kiln Lane	183	46	77	2005	0.091	182	354	0.0	0.1	2.800	A
D - Laporte Road	443	111	91	2169	0.204	442	169	0.0	0.3	2.317	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	638	1083	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	277	69	239	1975	0.140	277	399	0.2	0.2	2.676	A
C - Kiln Lane	218	55	93	1995	0.110	218	423	0.1	0.2	2.872	A
D - Laporte Road	529	132	109	2156	0.246	529	202	0.3	0.4	2.459	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	781	1006	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	339	85	293	1937	0.175	339	488	0.2	0.3	2.844	A
C - Kiln Lane	268	67	113	1981	0.135	267	518	0.2	0.2	2.978	A
D - Laporte Road	649	162	133	2139	0.303	648	248	0.4	0.5	2.684	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	782	1006	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	339	85	293	1937	0.175	339	489	0.3	0.3	2.844	A
C - Kiln Lane	268	67	113	1981	0.135	268	519	0.2	0.2	2.978	A
D - Laporte Road	649	162	133	2139	0.303	648	248	0.5	0.5	2.684	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	639	1082	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	277	69	239	1975	0.140	277	400	0.3	0.2	2.677	A
C - Kiln Lane	218	55	93	1995	0.110	219	424	0.2	0.2	2.875	A
D - Laporte Road	529	132	109	2156	0.246	530	202	0.5	0.4	2.463	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	535	1137	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	232	58	200	2003	0.116	232	334	0.2	0.2	2.567	A
C - Kiln Lane	183	46	78	2005	0.091	183	355	0.2	0.1	2.803	A
D - Laporte Road	443	111	91	2168	0.205	444	170	0.4	0.3	2.322	A

2032 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Hobson Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Kiln Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - Laporte Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	2.66	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.66	A

Traffic Demand

Demand Set 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	2032 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Air Products Access		ONE HOUR	✓	2	100.000
B - Hobson Way		ONE HOUR	✓	448	100.000
C - Kiln Lane		ONE HOUR	✓	335	100.000
D - Laporte Road		ONE HOUR	✓	97	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
From	A - Air Products Access	0	1	1	0
	B - Hobson Way	0	0	118	330
	C - Kiln Lane	1	103	2	229
	D - Laporte Road	0	50	47	0

Vehicle Mix

HV %s

		To			
From		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
	A - Air Products Access	0	0	0	0
	B - Hobson Way	0	0	16	6
	C - Kiln Lane	0	23	0	21
	D - Laporte Road	0	18	77	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Air Products Access	0.00	0.00	0.0	A	0	0
B - Hobson Way	0.23	2.42	0.3	A	411	617
C - Kiln Lane	0.20	3.03	0.3	A	307	461
D - Laporte Road	0.05	2.48	0.1	A	89	134

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	152	1341	0.000	0	0.75	0.0	0.0	0.000	A
B - Hobson Way	337	84	37	2119	0.159	336	115	0.0	0.2	2.189	A
C - Kiln Lane	252	63	248	1890	0.133	251	125	0.0	0.2	2.664	A
D - Laporte Road	73	18	80	2176	0.034	73	420	0.0	0.0	2.408	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	181	1325	0.000	0	0.90	0.0	0.0	0.000	A
B - Hobson Way	403	101	44	2114	0.191	403	137	0.2	0.3	2.281	A
C - Kiln Lane	301	75	297	1857	0.162	301	150	0.2	0.2	2.807	A
D - Laporte Road	87	22	95	2166	0.040	87	502	0.0	0.1	2.437	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	222	1304	0.000	0	1	0.0	0.0	0.000	A
B - Hobson Way	493	123	54	2107	0.234	493	168	0.3	0.3	2.419	A
C - Kiln Lane	369	92	363	1813	0.203	369	184	0.2	0.3	3.025	A
D - Laporte Road	107	27	117	2151	0.050	107	615	0.1	0.1	2.478	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	222	1304	0.000	0	1	0.0	0.0	0.000	A
B - Hobson Way	493	123	54	2107	0.234	493	168	0.3	0.3	2.419	A
C - Kiln Lane	369	92	363	1812	0.204	369	184	0.3	0.3	3.026	A
D - Laporte Road	107	27	117	2151	0.050	107	615	0.1	0.1	2.478	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	182	1325	0.000	0	0.90	0.0	0.0	0.000	A
B - Hobson Way	403	101	44	2114	0.191	403	138	0.3	0.3	2.282	A
C - Kiln Lane	301	75	297	1857	0.162	301	150	0.3	0.2	2.808	A
D - Laporte Road	87	22	95	2165	0.040	87	503	0.1	0.1	2.437	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	152	1341	0.000	0	0.75	0.0	0.0	0.000	A
B - Hobson Way	337	84	37	2119	0.159	337	115	0.3	0.2	2.191	A
C - Kiln Lane	252	63	249	1890	0.133	252	126	0.2	0.2	2.668	A
D - Laporte Road	73	18	80	2176	0.034	73	421	0.1	0.0	2.410	A

2032 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Hobson Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Kiln Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - Laporte Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	2.63	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.63	A

Traffic Demand

Demand Set 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	2032 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Air Products Access		ONE HOUR	✓	4	100.000
B - Hobson Way		ONE HOUR	✓	231	100.000
C - Kiln Lane		ONE HOUR	✓	193	100.000
D - Laporte Road		ONE HOUR	✓	566	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
From	A - Air Products Access	0	0	4	0
	B - Hobson Way	0	0	152	79
	C - Kiln Lane	0	121	6	66
	D - Laporte Road	0	314	252	0

Vehicle Mix

HV %s

		To			
From		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
	A - Air Products Access	0	0	0	0
	B - Hobson Way	0	0	24	11
	C - Kiln Lane	0	16	25	72
	D - Laporte Road	0	5	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Air Products Access	0.00	0.00	0.0	A	0	0
B - Hobson Way	0.13	2.54	0.2	A	212	318
C - Kiln Lane	0.11	2.64	0.2	A	177	266
D - Laporte Road	0.29	2.67	0.5	A	519	779

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	520	1145	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	174	43	194	2007	0.087	173	327	0.0	0.1	2.340	A
C - Kiln Lane	145	36	59	2017	0.072	145	308	0.0	0.1	2.516	A
D - Laporte Road	426	107	95	2165	0.197	425	109	0.0	0.3	2.314	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	623	1091	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	208	52	232	1980	0.105	208	391	0.1	0.1	2.420	A
C - Kiln Lane	174	43	71	2009	0.086	173	368	0.1	0.1	2.565	A
D - Laporte Road	509	127	114	2152	0.236	509	130	0.3	0.3	2.451	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	762	1016	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	254	64	284	1943	0.131	254	479	0.1	0.2	2.541	A
C - Kiln Lane	212	53	87	1999	0.106	212	451	0.1	0.2	2.636	A
D - Laporte Road	623	156	140	2134	0.292	623	160	0.3	0.5	2.666	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	763	1016	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	254	64	284	1943	0.131	254	479	0.2	0.2	2.541	A
C - Kiln Lane	212	53	87	1999	0.106	212	451	0.2	0.2	2.636	A
D - Laporte Road	623	156	140	2134	0.292	623	160	0.5	0.5	2.666	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	624	1090	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	208	52	232	1980	0.105	208	391	0.2	0.1	2.423	A
C - Kiln Lane	174	43	71	2009	0.086	174	369	0.2	0.1	2.565	A
D - Laporte Road	509	127	114	2152	0.236	509	130	0.5	0.3	2.453	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	522	1144	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	174	43	194	2007	0.087	174	328	0.1	0.1	2.343	A
C - Kiln Lane	145	36	60	2017	0.072	145	309	0.1	0.1	2.516	A
D - Laporte Road	426	107	96	2165	0.197	426	109	0.3	0.3	2.319	A

2032 Base + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Hobson Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Kiln Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - Laporte Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	3.17	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.17	A

Traffic Demand

Demand Set 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	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Air Products Access		ONE HOUR	✓	2	100.000
B - Hobson Way		ONE HOUR	✓	550	100.000
C - Kiln Lane		ONE HOUR	✓	471	100.000
D - Laporte Road		ONE HOUR	✓	123	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
From	A - Air Products Access	0	1	1	0
	B - Hobson Way	0	0	220	330
	C - Kiln Lane	1	135	2	333
	D - Laporte Road	0	50	73	0

Vehicle Mix

HV %s

		To			
From		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
	A - Air Products Access	0	0	0	0
	B - Hobson Way	0	0	44	6
	C - Kiln Lane	0	25	0	37
	D - Laporte Road	0	18	45	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Air Products Access	0.00	0.00	0.0	A	0	0
B - Hobson Way	0.29	2.88	0.5	A	505	757
C - Kiln Lane	0.29	3.70	0.5	A	432	648
D - Laporte Road	0.06	2.40	0.1	A	113	169

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	195	1318	0.000	0	0.75	0.0	0.0	0.000	A
B - Hobson Way	414	104	56	2105	0.197	413	139	0.0	0.3	2.520	A
C - Kiln Lane	355	89	248	1890	0.188	353	221	0.0	0.3	3.112	A
D - Laporte Road	93	23	104	2160	0.043	92	498	0.0	0.1	2.309	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	234	1298	0.000	0	0.90	0.0	0.0	0.000	A
B - Hobson Way	494	124	67	2097	0.236	494	166	0.3	0.4	2.660	A
C - Kiln Lane	423	106	296	1858	0.228	423	265	0.3	0.4	3.338	A
D - Laporte Road	111	28	124	2145	0.052	111	596	0.1	0.1	2.346	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	286	1270	0.000	0	1	0.0	0.0	0.000	A
B - Hobson Way	606	151	83	2087	0.290	605	203	0.4	0.5	2.879	A
C - Kiln Lane	519	130	363	1813	0.286	518	325	0.4	0.5	3.696	A
D - Laporte Road	135	34	152	2126	0.064	135	729	0.1	0.1	2.398	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	286	1270	0.000	0	1	0.0	0.0	0.000	A
B - Hobson Way	606	151	83	2087	0.290	606	204	0.5	0.5	2.879	A
C - Kiln Lane	519	130	363	1812	0.286	519	325	0.5	0.5	3.700	A
D - Laporte Road	135	34	152	2126	0.064	135	730	0.1	0.1	2.398	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	234	1298	0.000	0	0.90	0.0	0.0	0.000	A
B - Hobson Way	494	124	67	2097	0.236	495	166	0.5	0.4	2.664	A
C - Kiln Lane	423	106	297	1857	0.228	424	265	0.5	0.4	3.341	A
D - Laporte Road	111	28	124	2145	0.052	111	597	0.1	0.1	2.348	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	196	1318	0.000	0	0.75	0.0	0.0	0.000	A
B - Hobson Way	414	104	56	2105	0.197	414	139	0.4	0.3	2.525	A
C - Kiln Lane	355	89	249	1890	0.188	355	222	0.4	0.3	3.120	A
D - Laporte Road	93	23	104	2159	0.043	93	500	0.1	0.1	2.310	A

2032 Base + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Hobson Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Kiln Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - Laporte Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	2.80	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.80	A

Traffic Demand

Demand Set 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	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Air Products Access		ONE HOUR	✓	4	100.000
B - Hobson Way		ONE HOUR	✓	290	100.000
C - Kiln Lane		ONE HOUR	✓	251	100.000
D - Laporte Road		ONE HOUR	✓	585	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
From	A - Air Products Access	0	0	4	0
	B - Hobson Way	0	0	211	79
	C - Kiln Lane	0	121	6	124
	D - Laporte Road	0	314	271	0

Vehicle Mix

HV %s

		To			
From		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
	A - Air Products Access	0	0	0	0
	B - Hobson Way	0	0	38	11
	C - Kiln Lane	0	16	25	81
	D - Laporte Road	0	5	20	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Air Products Access	0.00	0.00	0.0	A	0	0
B - Hobson Way	0.17	2.90	0.3	A	266	399
C - Kiln Lane	0.14	2.95	0.2	A	230	345
D - Laporte Road	0.30	2.69	0.5	A	537	805

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	535	1138	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	218	55	208	1997	0.109	218	327	0.0	0.2	2.618	A
C - Kiln Lane	189	47	59	2017	0.094	188	366	0.0	0.1	2.781	A
D - Laporte Road	440	110	95	2165	0.203	439	152	0.0	0.3	2.323	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	640	1082	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	261	65	249	1968	0.132	261	391	0.2	0.2	2.728	A
C - Kiln Lane	226	56	71	2009	0.112	226	438	0.1	0.2	2.851	A
D - Laporte Road	526	131	114	2152	0.244	526	182	0.3	0.4	2.466	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	783	1005	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	319	80	305	1928	0.166	319	479	0.2	0.3	2.895	A
C - Kiln Lane	276	69	87	1999	0.138	276	537	0.2	0.2	2.953	A
D - Laporte Road	644	161	140	2134	0.302	644	223	0.4	0.5	2.691	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	784	1005	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	319	80	305	1928	0.166	319	479	0.3	0.3	2.895	A
C - Kiln Lane	276	69	87	1999	0.138	276	537	0.2	0.2	2.953	A
D - Laporte Road	644	161	140	2134	0.302	644	224	0.5	0.5	2.691	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	641	1081	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	261	65	249	1968	0.132	261	391	0.3	0.2	2.729	A
C - Kiln Lane	226	56	71	2009	0.112	226	439	0.2	0.2	2.854	A
D - Laporte Road	526	131	114	2152	0.244	526	183	0.5	0.4	2.468	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	536	1137	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	218	55	209	1997	0.109	218	328	0.2	0.2	2.621	A
C - Kiln Lane	189	47	60	2017	0.094	189	368	0.2	0.1	2.782	A
D - Laporte Road	440	110	96	2165	0.203	441	153	0.4	0.3	2.328	A

2032 Base + Committed + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Hobson Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Kiln Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - Laporte Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	3.17	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.17	A

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Air Products Access		ONE HOUR	✓	2	100.000
B - Hobson Way		ONE HOUR	✓	577	100.000
C - Kiln Lane		ONE HOUR	✓	471	100.000
D - Laporte Road		ONE HOUR	✓	149	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
From	A - Air Products Access	0	1	1	0
	B - Hobson Way	0	0	220	357
	C - Kiln Lane	1	135	2	333
	D - Laporte Road	0	76	73	0

Vehicle Mix

HV %s

		To			
From		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
	A - Air Products Access	0	0	0	0
	B - Hobson Way	0	0	44	6
	C - Kiln Lane	0	25	0	37
	D - Laporte Road	0	11	45	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Air Products Access	0.00	0.00	0.0	A	0	0
B - Hobson Way	0.30	2.92	0.5	A	529	794
C - Kiln Lane	0.29	3.76	0.5	A	432	648
D - Laporte Road	0.08	2.30	0.1	A	137	205

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	215	1308	0.000	0	0.75	0.0	0.0	0.000	A
B - Hobson Way	434	109	56	2105	0.206	433	158	0.0	0.3	2.536	A
C - Kiln Lane	355	89	268	1877	0.189	353	221	0.0	0.3	3.140	A
D - Laporte Road	112	28	104	2160	0.052	112	518	0.0	0.1	2.204	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	257	1285	0.000	0	0.90	0.0	0.0	0.000	A
B - Hobson Way	519	130	67	2097	0.247	518	190	0.3	0.4	2.686	A
C - Kiln Lane	423	106	321	1841	0.230	423	265	0.3	0.4	3.377	A
D - Laporte Road	134	33	124	2145	0.062	134	620	0.1	0.1	2.244	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	315	1255	0.000	0	1	0.0	0.0	0.000	A
B - Hobson Way	635	159	83	2087	0.304	635	232	0.4	0.5	2.922	A
C - Kiln Lane	519	130	393	1793	0.289	518	325	0.4	0.5	3.754	A
D - Laporte Road	164	41	152	2126	0.077	164	759	0.1	0.1	2.300	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	315	1254	0.000	0	1	0.0	0.0	0.000	A
B - Hobson Way	635	159	83	2087	0.304	635	232	0.5	0.5	2.922	A
C - Kiln Lane	519	130	393	1792	0.289	519	325	0.5	0.5	3.758	A
D - Laporte Road	164	41	152	2126	0.077	164	760	0.1	0.1	2.300	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	257	1285	0.000	0	0.90	0.0	0.0	0.000	A
B - Hobson Way	519	130	67	2097	0.247	519	190	0.5	0.4	2.688	A
C - Kiln Lane	423	106	321	1841	0.230	424	265	0.5	0.4	3.383	A
D - Laporte Road	134	33	124	2145	0.062	134	621	0.1	0.1	2.246	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	215	1307	0.000	0	0.75	0.0	0.0	0.000	A
B - Hobson Way	434	109	56	2105	0.206	435	159	0.4	0.3	2.541	A
C - Kiln Lane	355	89	269	1876	0.189	355	222	0.4	0.3	3.150	A
D - Laporte Road	112	28	104	2159	0.052	112	520	0.1	0.1	2.206	A

2032 Base + Committed + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Hobson Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Kiln Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - Laporte Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	2.83	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.83	A

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Air Products Access		ONE HOUR	✓	4	100.000
B - Hobson Way		ONE HOUR	✓	317	100.000
C - Kiln Lane		ONE HOUR	✓	251	100.000
D - Laporte Road		ONE HOUR	✓	611	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
From	A - Air Products Access	0	0	4	0
	B - Hobson Way	0	0	211	106
	C - Kiln Lane	0	121	6	124
	D - Laporte Road	0	340	271	0

Vehicle Mix

HV %s

		To			
From		A - Air Products Access	B - Hobson Way	C - Kiln Lane	D - Laporte Road
	A - Air Products Access	0	0	0	0
	B - Hobson Way	0	0	38	8
	C - Kiln Lane	0	16	25	81
	D - Laporte Road	0	5	20	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Air Products Access	0.00	0.00	0.0	A	0	0
B - Hobson Way	0.18	2.88	0.3	A	291	436
C - Kiln Lane	0.14	2.99	0.2	A	230	345
D - Laporte Road	0.32	2.74	0.5	A	561	841

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	554	1127	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	239	60	208	1997	0.119	238	346	0.0	0.2	2.584	A
C - Kiln Lane	189	47	80	2004	0.094	188	366	0.0	0.1	2.802	A
D - Laporte Road	460	115	95	2165	0.212	459	173	0.0	0.3	2.344	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	663	1069	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	285	71	249	1968	0.145	285	414	0.2	0.2	2.700	A
C - Kiln Lane	226	56	95	1993	0.113	226	438	0.1	0.2	2.877	A
D - Laporte Road	549	137	114	2152	0.255	549	207	0.3	0.4	2.495	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	812	990	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	349	87	305	1928	0.181	349	507	0.2	0.3	2.877	A
C - Kiln Lane	276	69	117	1979	0.140	276	537	0.2	0.2	2.987	A
D - Laporte Road	673	168	140	2134	0.315	672	253	0.4	0.5	2.737	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	813	990	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	349	87	305	1928	0.181	349	508	0.3	0.3	2.878	A
C - Kiln Lane	276	69	117	1979	0.140	276	537	0.2	0.2	2.987	A
D - Laporte Road	673	168	140	2134	0.315	673	253	0.5	0.5	2.737	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	664	1069	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	285	71	249	1968	0.145	285	415	0.3	0.2	2.703	A
C - Kiln Lane	226	56	95	1993	0.113	226	439	0.2	0.2	2.878	A
D - Laporte Road	549	137	114	2152	0.255	550	207	0.5	0.4	2.497	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Air Products Access	0	0	556	1126	0.000	0	0	0.0	0.0	0.000	A
B - Hobson Way	239	60	209	1997	0.120	239	347	0.2	0.2	2.587	A
C - Kiln Lane	189	47	80	2003	0.094	189	368	0.2	0.1	2.805	A
D - Laporte Road	460	115	96	2165	0.212	460	173	0.4	0.3	2.347	A

Appendix TN2 D

Kings Road/ A1173 Junction Assessment Results

<h1>Junctions 10</h1>
<h2>ARCADY 10 - Roundabout Module</h2>
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Filename: Kings Road-A1173.j10
Path: P:\23000\s\23325\Junction Assessment\1 Base Assessment
Report generation date: 18/10/2023 15:47:11

- »2021 Base, AM
- »2021 Base, PM
- »2025 Base, AM
- »2025 Base, PM
- »2025 Base + Committed, AM
- »2025 Base + Committed, PM
- »2025 Base + Committed + Development, AM
- »2025 Base + Committed + Development, PM
- »2032 Base, AM
- »2032 Base, PM
- »2032 Base + Committed, AM
- »2032 Base + Committed, PM
- »2032 Base + Committed + Development, AM
- »2032 Base + Committed + Development, PM

Summary of junction performance

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Base						
A - Kings Road	0.2	3.60	0.10	0.4	4.06	0.28
B - A1173	1.1	4.65	0.49	0.4	3.43	0.22
C - A1173 Kings Road	0.4	3.58	0.23	0.7	3.92	0.39
2025 Base						
A - Kings Road	0.2	3.63	0.10	0.4	4.15	0.28
B - A1173	1.2	4.80	0.51	0.4	3.47	0.23
C - A1173 Kings Road	0.4	3.62	0.24	0.8	4.00	0.40
2025 Base + Committed						
A - Kings Road	0.2	3.68	0.10	0.5	4.38	0.30
B - A1173	1.5	5.45	0.57	0.5	3.69	0.30
C - A1173 Kings Road	0.4	3.75	0.27	0.9	4.47	0.45
2025 Base + Committed + Development						
A - Kings Road	0.3	4.25	0.17	0.9	5.81	0.42
B - A1173	2.4	7.67	0.67	1.1	5.28	0.44
C - A1173 Kings Road	0.5	4.22	0.30	1.1	5.47	0.51
2032 Base						
A - Kings Road	0.2	3.67	0.10	0.5	4.31	0.30
B - A1173	1.3	5.05	0.53	0.4	3.53	0.24
C - A1173 Kings Road	0.4	3.70	0.25	0.8	4.14	0.42
2032 Base + Committed						
A - Kings Road	0.2	3.73	0.11	0.2	3.07	0.16
B - A1173	1.6	5.78	0.59	2.0	6.60	0.62
C - A1173 Kings Road	0.5	3.84	0.28	0.5	3.95	0.29
2032 Base + Committed + Development						
A - Kings Road	0.3	4.29	0.18	0.9	6.10	0.44
B - A1173	2.7	8.30	0.70	1.1	5.41	0.46
C - A1173 Kings Road	0.5	4.32	0.31	1.2	5.72	0.53

Values shown are the highest values encountered over all time segments. Delay is the maximum value of Av. delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	18/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\Arcady
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

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	2021 Base	AM	ONE HOUR	06:45	08:15	15	✓
D2	2021 Base	PM	ONE HOUR	15:45	17:15	15	✓
D3	2025 Base	AM	ONE HOUR	06:45	08:15	15	✓
D4	2025 Base	PM	ONE HOUR	15:45	17:15	15	✓
D5	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D6	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D7	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D8	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓
D9	2032 Base	AM	ONE HOUR	06:45	08:15	15	✓
D10	2032 Base	PM	ONE HOUR	15:45	17:15	15	✓
D11	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D12	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D13	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D14	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2021 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	4.25	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.25	A

Arms

Arms

Arm	Name	Description	No give-way line
A	Kings Road		
B	A1173		
C	A1173 Kings Road		

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
A - Kings Road	3.59	6.99	11.2	32.5	45.1	9.0		
B - A1173	3.55	7.66	13.2	26.2	45.1	19.0		
C - A1173 Kings Road	3.63	7.01	10.5	28.3	45.1	12.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Kings Road	0.666	1758
B - A1173	0.659	1784
C - A1173 Kings Road	0.656	1727

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	2021 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kings Road		ONE HOUR	✓	140	100.000
B - A1173		ONE HOUR	✓	774	100.000
C - A1173 Kings Road		ONE HOUR	✓	325	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Kings Road	B - A1173	C - A1173 Kings Road
From	A - Kings Road	0	72	68
	B - A1173	248	1	525
	C - A1173 Kings Road	124	200	1

Vehicle Mix

HV %s

		To		
		A - Kings Road	B - A1173	C - A1173 Kings Road
From	A - Kings Road	0	73	25
	B - A1173	12	0	15
	C - A1173 Kings Road	10	24	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kings Road	0.10	3.60	0.2	A	128	193
B - A1173	0.49	4.65	1.1	A	710	1065
C - A1173 Kings Road	0.23	3.58	0.4	A	298	447

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	105	26	152	1657	0.064	105	279	0.0	0.1	3.382	A
B - A1173	583	146	52	1750	0.333	580	205	0.0	0.6	3.504	A
C - A1173 Kings Road	245	61	187	1605	0.152	244	445	0.0	0.2	3.125	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	126	31	181	1637	0.077	126	334	0.1	0.1	3.472	A
B - A1173	696	174	62	1743	0.399	695	245	0.6	0.8	3.913	A
C - A1173 Kings Road	292	73	224	1580	0.185	292	533	0.2	0.3	3.301	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	154	39	222	1610	0.096	154	409	0.1	0.2	3.604	A
B - A1173	852	213	76	1734	0.491	851	300	0.8	1.1	4.641	A
C - A1173 Kings Road	358	89	274	1548	0.231	357	653	0.3	0.4	3.574	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	154	39	222	1610	0.096	154	410	0.2	0.2	3.604	A
B - A1173	852	213	76	1734	0.492	852	301	1.1	1.1	4.654	A
C - A1173 Kings Road	358	89	274	1547	0.231	358	654	0.4	0.4	3.575	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	126	31	182	1637	0.077	126	335	0.2	0.1	3.473	A
B - A1173	696	174	62	1743	0.399	697	246	1.1	0.8	3.930	A
C - A1173 Kings Road	292	73	224	1580	0.185	293	535	0.4	0.3	3.306	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	105	26	152	1657	0.064	105	280	0.1	0.1	3.383	A
B - A1173	583	146	52	1750	0.333	583	206	0.8	0.6	3.523	A
C - A1173 Kings Road	245	61	188	1604	0.153	245	448	0.3	0.2	3.132	A

2021 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	3.83	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.83	A

Traffic Demand

Demand Set 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	2021 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kings Road		ONE HOUR	✓	341	100.000
B - A1173		ONE HOUR	✓	338	100.000
C - A1173 Kings Road		ONE HOUR	✓	603	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Kings Road	B - A1173	C - A1173 Kings Road
From	A - Kings Road	0	182	159
	B - A1173	45	0	293
	C - A1173 Kings Road	66	536	1

Vehicle Mix

HV %s

		To		
		A - Kings Road	B - A1173	C - A1173 Kings Road
From	A - Kings Road	0	17	6
	B - A1173	52	0	20
	C - A1173 Kings Road	24	11	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kings Road	0.28	4.06	0.4	A	313	469
B - A1173	0.22	3.43	0.4	A	310	465
C - A1173 Kings Road	0.39	3.92	0.7	A	553	830

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	257	64	403	1490	0.172	256	83	0.0	0.2	3.255	A
B - A1173	254	64	120	1705	0.149	254	539	0.0	0.2	3.061	A
C - A1173 Kings Road	454	113	34	1705	0.266	452	340	0.0	0.4	3.222	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	307	77	482	1437	0.213	306	100	0.2	0.3	3.554	A
B - A1173	304	76	144	1689	0.180	304	645	0.2	0.3	3.207	A
C - A1173 Kings Road	542	136	40	1701	0.319	542	407	0.4	0.5	3.485	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	375	94	591	1365	0.275	375	122	0.3	0.4	4.058	A
B - A1173	372	93	176	1668	0.223	372	790	0.3	0.4	3.429	A
C - A1173 Kings Road	664	166	50	1695	0.392	663	498	0.5	0.7	3.916	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	375	94	591	1364	0.275	375	122	0.4	0.4	4.063	A
B - A1173	372	93	176	1668	0.223	372	791	0.4	0.4	3.429	A
C - A1173 Kings Road	664	166	50	1695	0.392	664	499	0.7	0.7	3.921	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	307	77	483	1436	0.213	307	100	0.4	0.3	3.562	A
B - A1173	304	76	144	1689	0.180	304	646	0.4	0.3	3.212	A
C - A1173 Kings Road	542	136	40	1701	0.319	543	408	0.7	0.5	3.492	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	257	64	405	1488	0.172	257	84	0.3	0.2	3.262	A
B - A1173	254	64	121	1704	0.149	255	541	0.3	0.2	3.065	A
C - A1173 Kings Road	454	113	34	1705	0.266	454	341	0.5	0.4	3.235	A

2025 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	4.36	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.36	A

Traffic Demand

Demand Set 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	2025 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kings Road		ONE HOUR	✓	144	100.000
B - A1173		ONE HOUR	✓	797	100.000
C - A1173 Kings Road		ONE HOUR	✓	335	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Kings Road	B - A1173	C - A1173 Kings Road
From	A - Kings Road	0	74	70
	B - A1173	255	1	541
	C - A1173 Kings Road	128	206	1

Vehicle Mix

HV %s

		To		
		A - Kings Road	B - A1173	C - A1173 Kings Road
From	A - Kings Road	0	73	25
	B - A1173	12	0	15
	C - A1173 Kings Road	10	24	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kings Road	0.10	3.63	0.2	A	132	198
B - A1173	0.51	4.80	1.2	A	731	1097
C - A1173 Kings Road	0.24	3.62	0.4	A	307	461

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	108	27	156	1654	0.066	108	287	0.0	0.1	3.394	A
B - A1173	600	150	53	1749	0.343	598	211	0.0	0.6	3.557	A
C - A1173 Kings Road	252	63	192	1601	0.158	251	459	0.0	0.2	3.150	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	129	32	187	1634	0.079	129	344	0.1	0.1	3.488	A
B - A1173	716	179	64	1742	0.411	716	252	0.6	0.8	3.993	A
C - A1173 Kings Road	301	75	230	1576	0.191	301	550	0.2	0.3	3.335	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	159	40	229	1606	0.099	158	421	0.1	0.2	3.626	A
B - A1173	878	219	78	1732	0.507	876	309	0.8	1.2	4.785	A
C - A1173 Kings Road	369	92	281	1543	0.239	368	673	0.3	0.4	3.623	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	159	40	229	1605	0.099	159	422	0.2	0.2	3.626	A
B - A1173	878	219	78	1732	0.507	877	309	1.2	1.2	4.800	A
C - A1173 Kings Road	369	92	282	1542	0.239	369	674	0.4	0.4	3.624	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	129	32	187	1633	0.079	130	345	0.2	0.1	3.492	A
B - A1173	716	179	64	1742	0.411	718	253	1.2	0.8	4.013	A
C - A1173 Kings Road	301	75	231	1576	0.191	302	551	0.4	0.3	3.338	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	108	27	157	1654	0.066	109	289	0.1	0.1	3.398	A
B - A1173	600	150	53	1749	0.343	601	212	0.8	0.6	3.577	A
C - A1173 Kings Road	252	63	193	1601	0.158	252	461	0.3	0.2	3.155	A

2025 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	3.90	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.90	A

Traffic Demand

Demand Set 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	2025 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kings Road		ONE HOUR	✓	350	100.000
B - A1173		ONE HOUR	✓	349	100.000
C - A1173 Kings Road		ONE HOUR	✓	621	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Kings Road	B - A1173	C - A1173 Kings Road
From	A - Kings Road	0	187	163
	B - A1173	47	0	302
	C - A1173 Kings Road	68	552	1

Vehicle Mix

HV %s

		To		
		A - Kings Road	B - A1173	C - A1173 Kings Road
From	A - Kings Road	0	17	6
	B - A1173	52	0	20
	C - A1173 Kings Road	24	11	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kings Road	0.28	4.15	0.4	A	321	482
B - A1173	0.23	3.47	0.4	A	320	480
C - A1173 Kings Road	0.40	4.00	0.8	A	570	855

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	263	66	415	1482	0.178	263	86	0.0	0.2	3.291	A
B - A1173	263	66	123	1703	0.154	262	554	0.0	0.2	3.084	A
C - A1173 Kings Road	468	117	35	1704	0.274	466	350	0.0	0.4	3.260	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	315	79	497	1427	0.220	314	103	0.2	0.3	3.610	A
B - A1173	314	78	147	1687	0.186	314	664	0.2	0.3	3.237	A
C - A1173 Kings Road	558	140	42	1699	0.329	558	419	0.4	0.5	3.538	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	385	96	608	1353	0.285	385	126	0.3	0.4	4.148	A
B - A1173	384	96	180	1665	0.231	384	813	0.3	0.4	3.470	A
C - A1173 Kings Road	684	171	52	1693	0.404	683	513	0.5	0.8	3.997	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	385	96	609	1352	0.285	385	127	0.4	0.4	4.154	A
B - A1173	384	96	181	1665	0.231	384	814	0.4	0.4	3.470	A
C - A1173 Kings Road	684	171	52	1693	0.404	684	513	0.8	0.8	4.003	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	315	79	498	1426	0.221	315	104	0.4	0.3	3.616	A
B - A1173	314	78	148	1687	0.186	314	665	0.4	0.3	3.239	A
C - A1173 Kings Road	558	140	42	1699	0.329	559	419	0.8	0.6	3.549	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	263	66	417	1480	0.178	264	87	0.3	0.2	3.305	A
B - A1173	263	66	124	1702	0.154	263	557	0.3	0.2	3.088	A
C - A1173 Kings Road	468	117	35	1704	0.274	468	351	0.6	0.4	3.273	A

2025 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	4.82	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.82	A

Traffic Demand

Demand Set 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	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kings Road		ONE HOUR	✓	144	100.000
B - A1173		ONE HOUR	✓	890	100.000
C - A1173 Kings Road		ONE HOUR	✓	370	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Kings Road	B - A1173	C - A1173 Kings Road
From	A - Kings Road	0	74	70
	B - A1173	276	1	613
	C - A1173 Kings Road	132	237	1

Vehicle Mix

HV %s

		To		
		A - Kings Road	B - A1173	C - A1173 Kings Road
From	A - Kings Road	0	73	25
	B - A1173	12	0	15
	C - A1173 Kings Road	10	21	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kings Road	0.10	3.68	0.2	A	132	198
B - A1173	0.57	5.45	1.5	A	817	1225
C - A1173 Kings Road	0.27	3.75	0.4	A	340	509

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	108	27	179	1639	0.066	108	306	0.0	0.1	3.429	A
B - A1173	670	168	53	1749	0.383	667	234	0.0	0.7	3.786	A
C - A1173 Kings Road	279	70	208	1591	0.175	278	513	0.0	0.2	3.199	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	129	32	215	1615	0.080	129	366	0.1	0.1	3.532	A
B - A1173	800	200	64	1742	0.459	799	280	0.7	1.0	4.350	A
C - A1173 Kings Road	333	83	249	1564	0.213	332	614	0.2	0.3	3.412	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	159	40	263	1583	0.100	158	448	0.1	0.2	3.683	A
B - A1173	980	245	78	1732	0.566	978	343	1.0	1.5	5.426	A
C - A1173 Kings Road	407	102	304	1528	0.267	407	752	0.3	0.4	3.748	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	159	40	263	1583	0.100	159	449	0.2	0.2	3.684	A
B - A1173	980	245	78	1732	0.566	980	344	1.5	1.5	5.454	A
C - A1173 Kings Road	407	102	305	1527	0.267	407	753	0.4	0.4	3.753	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	129	32	215	1615	0.080	130	368	0.2	0.1	3.533	A
B - A1173	800	200	64	1742	0.459	802	281	1.5	1.0	4.377	A
C - A1173 Kings Road	333	83	250	1563	0.213	333	616	0.4	0.3	3.419	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	108	27	180	1638	0.066	109	308	0.1	0.1	3.433	A
B - A1173	670	168	53	1749	0.383	671	235	1.0	0.7	3.812	A
C - A1173 Kings Road	279	70	209	1590	0.175	279	516	0.3	0.2	3.208	A

2025 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	4.21	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.21	A

Traffic Demand

Demand Set 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	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kings Road		ONE HOUR	✓	359	100.000
B - A1173		ONE HOUR	✓	451	100.000
C - A1173 Kings Road		ONE HOUR	✓	679	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Kings Road	B - A1173	C - A1173 Kings Road
From	A - Kings Road	0	194	165
	B - A1173	105	0	346
	C - A1173 Kings Road	68	610	1

Vehicle Mix

HV %s

		To		
		A - Kings Road	B - A1173	C - A1173 Kings Road
From	A - Kings Road	0	16	6
	B - A1173	18	0	20
	C - A1173 Kings Road	24	11	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kings Road	0.30	4.38	0.5	A	329	494
B - A1173	0.30	3.69	0.5	A	414	621
C - A1173 Kings Road	0.45	4.47	0.9	A	623	935

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	270	68	458	1453	0.186	269	130	0.0	0.3	3.378	A
B - A1173	340	85	125	1702	0.200	338	603	0.0	0.3	3.152	A
C - A1173 Kings Road	511	128	79	1675	0.305	509	384	0.0	0.5	3.456	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	323	81	549	1392	0.232	322	155	0.3	0.3	3.740	A
B - A1173	405	101	149	1686	0.241	405	722	0.3	0.4	3.360	A
C - A1173 Kings Road	610	153	94	1665	0.367	610	460	0.5	0.6	3.823	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	395	99	672	1311	0.302	395	190	0.3	0.5	4.367	A
B - A1173	497	124	183	1664	0.298	496	884	0.4	0.5	3.683	A
C - A1173 Kings Road	748	187	115	1651	0.453	746	563	0.6	0.9	4.456	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	395	99	673	1310	0.302	395	190	0.5	0.5	4.375	A
B - A1173	497	124	183	1664	0.299	497	885	0.5	0.5	3.686	A
C - A1173 Kings Road	748	187	116	1651	0.453	748	564	0.9	0.9	4.467	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	323	81	550	1391	0.232	323	156	0.5	0.3	3.750	A
B - A1173	405	101	149	1685	0.241	406	724	0.5	0.4	3.363	A
C - A1173 Kings Road	610	153	95	1665	0.367	611	461	0.9	0.7	3.838	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	270	68	461	1451	0.186	271	130	0.3	0.3	3.390	A
B - A1173	340	85	125	1701	0.200	340	606	0.4	0.3	3.160	A
C - A1173 Kings Road	511	128	79	1675	0.305	512	386	0.7	0.5	3.471	A

2025 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	6.39	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.39	A

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kings Road		ONE HOUR	✓	245	100.000
B - A1173		ONE HOUR	✓	1054	100.000
C - A1173 Kings Road		ONE HOUR	✓	380	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Kings Road	B - A1173	C - A1173 Kings Road
From	A - Kings Road	0	167	78
	B - A1173	437	1	616
	C - A1173 Kings Road	139	240	1

Vehicle Mix

HV %s

	To			
		A - Kings Road	B - A1173	C - A1173 Kings Road
From	A - Kings Road	0	77	22
	B - A1173	30	0	15
	C - A1173 Kings Road	9	21	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kings Road	0.17	4.25	0.3	A	225	337
B - A1173	0.67	7.67	2.4	A	967	1451
C - A1173 Kings Road	0.30	4.22	0.5	A	349	523

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	184	46	182	1637	0.113	184	432	0.0	0.2	3.832	A
B - A1173	794	198	59	1745	0.455	790	306	0.0	1.0	4.531	A
C - A1173 Kings Road	286	72	328	1512	0.189	285	521	0.0	0.3	3.407	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	220	55	217	1613	0.137	220	517	0.2	0.2	4.000	A
B - A1173	948	237	71	1737	0.545	946	366	1.0	1.4	5.481	A
C - A1173 Kings Road	342	85	393	1469	0.232	341	624	0.3	0.4	3.710	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	270	67	266	1581	0.171	269	632	0.2	0.3	4.248	A
B - A1173	1160	290	87	1727	0.672	1157	449	1.4	2.4	7.572	A
C - A1173 Kings Road	418	105	481	1412	0.296	418	763	0.4	0.5	4.208	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	270	67	266	1580	0.171	270	634	0.3	0.3	4.250	A
B - A1173	1160	290	87	1727	0.672	1160	449	2.4	2.4	7.672	A
C - A1173 Kings Road	418	105	482	1411	0.297	418	765	0.5	0.5	4.216	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	220	55	218	1613	0.137	221	520	0.3	0.2	4.004	A
B - A1173	948	237	71	1737	0.545	951	367	2.4	1.5	5.560	A
C - A1173 Kings Road	342	85	395	1468	0.233	342	627	0.5	0.4	3.721	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	184	46	182	1636	0.113	185	435	0.2	0.2	3.837	A
B - A1173	794	198	60	1745	0.455	795	308	1.5	1.0	4.587	A
C - A1173 Kings Road	286	72	331	1510	0.189	286	524	0.4	0.3	3.419	A

2025 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	5.49	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.49	A

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kings Road		ONE HOUR	✓	494	100.000
B - A1173		ONE HOUR	✓	669	100.000
C - A1173 Kings Road		ONE HOUR	✓	689	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - Kings Road	B - A1173	C - A1173 Kings Road
A - Kings Road	0	322	172
B - A1173	321	0	348
C - A1173 Kings Road	75	613	1

Vehicle Mix

HV %s

From	To		
	A - Kings Road	B - A1173	C - A1173 Kings Road
A - Kings Road	0	35	6
B - A1173	57	0	20
C - A1173 Kings Road	21	11	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kings Road	0.42	5.81	0.9	A	453	680
B - A1173	0.44	5.28	1.1	A	614	921
C - A1173 Kings Road	0.51	5.47	1.1	A	632	948

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	372	93	460	1451	0.256	370	297	0.0	0.4	4.099	A
B - A1173	504	126	130	1698	0.297	501	701	0.0	0.6	4.061	A
C - A1173 Kings Road	519	130	241	1569	0.331	517	390	0.0	0.5	3.821	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	444	111	551	1391	0.319	443	356	0.4	0.6	4.681	A
B - A1173	601	150	155	1682	0.358	601	839	0.6	0.7	4.503	A
C - A1173 Kings Road	619	155	288	1538	0.403	619	468	0.5	0.7	4.381	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	544	136	675	1309	0.416	543	435	0.6	0.9	5.786	A
B - A1173	737	184	190	1659	0.444	735	1027	0.7	1.1	5.267	A
C - A1173 Kings Road	759	190	353	1496	0.507	757	573	0.7	1.1	5.447	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	544	136	676	1308	0.416	544	436	0.9	0.9	5.808	A
B - A1173	737	184	190	1658	0.444	737	1029	1.1	1.1	5.283	A
C - A1173 Kings Road	759	190	353	1495	0.507	759	574	1.1	1.1	5.471	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	444	111	553	1389	0.320	445	357	0.9	0.6	4.706	A
B - A1173	601	150	156	1681	0.358	603	843	1.1	0.8	4.521	A
C - A1173 Kings Road	619	155	289	1537	0.403	621	469	1.1	0.8	4.405	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	372	93	463	1450	0.257	373	299	0.6	0.4	4.121	A
B - A1173	504	126	130	1698	0.297	504	705	0.8	0.6	4.084	A
C - A1173 Kings Road	519	130	242	1568	0.331	520	393	0.8	0.6	3.848	A

2032 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	4.54	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.54	A

Traffic Demand

Demand Set 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	2032 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kings Road		ONE HOUR	✓	151	100.000
B - A1173		ONE HOUR	✓	834	100.000
C - A1173 Kings Road		ONE HOUR	✓	350	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Kings Road	B - A1173	C - A1173 Kings Road
From	A - Kings Road	0	78	73
	B - A1173	267	1	566
	C - A1173 Kings Road	134	215	1

Vehicle Mix

HV %s

		To		
		A - Kings Road	B - A1173	C - A1173 Kings Road
From	A - Kings Road	0	73	25
	B - A1173	12	0	15
	C - A1173 Kings Road	10	24	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kings Road	0.10	3.67	0.2	A	139	208
B - A1173	0.53	5.05	1.3	A	765	1148
C - A1173 Kings Road	0.25	3.70	0.4	A	321	482

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	114	28	163	1650	0.069	113	301	0.0	0.1	3.419	A
B - A1173	628	157	56	1747	0.359	625	221	0.0	0.6	3.650	A
C - A1173 Kings Road	263	66	201	1595	0.165	263	480	0.0	0.2	3.190	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	136	34	195	1628	0.083	136	360	0.1	0.1	3.518	A
B - A1173	750	187	66	1740	0.431	749	264	0.6	0.9	4.137	A
C - A1173 Kings Road	315	79	241	1569	0.201	314	575	0.2	0.3	3.389	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	166	42	239	1599	0.104	166	441	0.1	0.2	3.665	A
B - A1173	918	230	81	1730	0.531	917	323	0.9	1.3	5.033	A
C - A1173 Kings Road	385	96	295	1534	0.251	385	703	0.3	0.4	3.702	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	166	42	239	1599	0.104	166	441	0.2	0.2	3.665	A
B - A1173	918	230	81	1730	0.531	918	324	1.3	1.3	5.053	A
C - A1173 Kings Road	385	96	295	1534	0.251	385	705	0.4	0.4	3.703	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	136	34	195	1628	0.083	136	361	0.2	0.1	3.522	A
B - A1173	750	187	67	1740	0.431	751	265	1.3	0.9	4.159	A
C - A1173 Kings Road	315	79	241	1569	0.201	315	577	0.4	0.3	3.393	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	114	28	164	1649	0.069	114	302	0.1	0.1	3.423	A
B - A1173	628	157	56	1747	0.359	629	222	0.9	0.6	3.674	A
C - A1173 Kings Road	263	66	202	1595	0.165	264	482	0.3	0.2	3.198	A

2032 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	4.02	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.02	A

Traffic Demand

Demand Set 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	2032 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kings Road		ONE HOUR	✓	366	100.000
B - A1173		ONE HOUR	✓	364	100.000
C - A1173 Kings Road		ONE HOUR	✓	649	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Kings Road	B - A1173	C - A1173 Kings Road
From	A - Kings Road	0	195	171
	B - A1173	49	0	315
	C - A1173 Kings Road	71	577	1

Vehicle Mix

HV %s

		To		
		A - Kings Road	B - A1173	C - A1173 Kings Road
From	A - Kings Road	0	17	6
	B - A1173	52	0	20
	C - A1173 Kings Road	24	11	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kings Road	0.30	4.31	0.5	A	336	504
B - A1173	0.24	3.53	0.4	A	334	501
C - A1173 Kings Road	0.42	4.14	0.8	A	596	893

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	276	69	434	1469	0.188	275	90	0.0	0.3	3.359	A
B - A1173	274	69	129	1699	0.161	273	579	0.0	0.2	3.117	A
C - A1173 Kings Road	489	122	37	1703	0.287	487	365	0.0	0.4	3.319	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	329	82	519	1412	0.233	329	108	0.3	0.3	3.707	A
B - A1173	327	82	154	1682	0.195	327	693	0.2	0.3	3.280	A
C - A1173 Kings Road	583	146	44	1698	0.344	583	437	0.4	0.6	3.621	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	403	101	636	1335	0.302	402	132	0.3	0.5	4.306	A
B - A1173	401	100	189	1659	0.242	400	849	0.3	0.4	3.531	A
C - A1173 Kings Road	715	179	54	1692	0.422	714	536	0.6	0.8	4.129	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	403	101	636	1334	0.302	403	132	0.5	0.5	4.314	A
B - A1173	401	100	189	1659	0.242	401	850	0.4	0.4	3.532	A
C - A1173 Kings Road	715	179	54	1692	0.422	715	536	0.8	0.8	4.135	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	329	82	520	1411	0.233	330	108	0.5	0.3	3.714	A
B - A1173	327	82	155	1682	0.195	328	695	0.4	0.3	3.283	A
C - A1173 Kings Road	583	146	44	1698	0.344	584	438	0.8	0.6	3.633	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	276	69	436	1468	0.188	276	90	0.3	0.3	3.373	A
B - A1173	274	69	130	1698	0.161	274	582	0.3	0.2	3.121	A
C - A1173 Kings Road	489	122	37	1703	0.287	489	367	0.6	0.5	3.333	A

2032 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	5.06	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.06	A

Traffic Demand

Demand Set 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	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kings Road		ONE HOUR	✓	151	100.000
B - A1173		ONE HOUR	✓	927	100.000
C - A1173 Kings Road		ONE HOUR	✓	386	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A - Kings Road	B - A1173	C - A1173 Kings Road	
From	A - Kings Road	0	78	73
	B - A1173	288	1	638
	C - A1173 Kings Road	138	247	1

Vehicle Mix

HV %s

	To			
	A - Kings Road	B - A1173	C - A1173 Kings Road	
From	A - Kings Road	0	73	25
	B - A1173	12	0	15
	C - A1173 Kings Road	10	21	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kings Road	0.11	3.73	0.2	A	139	208
B - A1173	0.59	5.78	1.6	A	851	1276
C - A1173 Kings Road	0.28	3.84	0.5	A	354	531

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	114	28	187	1634	0.070	113	319	0.0	0.1	3.455	A
B - A1173	698	174	55	1747	0.399	695	245	0.0	0.8	3.890	A
C - A1173 Kings Road	291	73	217	1585	0.183	290	534	0.0	0.3	3.241	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	136	34	224	1609	0.084	136	383	0.1	0.1	3.564	A
B - A1173	833	208	66	1740	0.479	832	293	0.8	1.0	4.516	A
C - A1173 Kings Road	347	87	259	1557	0.223	347	639	0.3	0.3	3.473	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	166	42	274	1576	0.106	166	468	0.1	0.2	3.726	A
B - A1173	1021	255	81	1730	0.590	1018	359	1.0	1.6	5.748	A
C - A1173 Kings Road	425	106	317	1519	0.280	425	782	0.3	0.5	3.839	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	166	42	274	1575	0.106	166	469	0.2	0.2	3.726	A
B - A1173	1021	255	81	1730	0.590	1021	359	1.6	1.6	5.784	A
C - A1173 Kings Road	425	106	318	1518	0.280	425	784	0.5	0.5	3.843	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	136	34	224	1609	0.084	136	384	0.2	0.1	3.568	A
B - A1173	833	208	67	1740	0.479	836	293	1.6	1.1	4.550	A
C - A1173 Kings Road	347	87	261	1556	0.223	347	642	0.5	0.3	3.480	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	114	28	188	1633	0.070	114	321	0.1	0.1	3.457	A
B - A1173	698	174	56	1747	0.399	699	246	1.1	0.8	3.922	A
C - A1173 Kings Road	291	73	218	1584	0.183	291	537	0.3	0.3	3.252	A

2032 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	5.44	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.44	A

Traffic Demand

Demand Set 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	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kings Road		ONE HOUR	✓	235	100.000
B - A1173		ONE HOUR	✓	976	100.000
C - A1173 Kings Road		ONE HOUR	✓	395	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A - Kings Road	B - A1173	C - A1173 Kings Road	
From	A - Kings Road	0	154	81
	B - A1173	334	1	641
	C - A1173 Kings Road	145	249	1

Vehicle Mix

HV %s

	To			
	A - Kings Road	B - A1173	C - A1173 Kings Road	
From	A - Kings Road	0	16	6
	B - A1173	18	0	20
	C - A1173 Kings Road	24	11	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kings Road	0.16	3.07	0.2	A	216	323
B - A1173	0.62	6.60	2.0	A	896	1343
C - A1173 Kings Road	0.29	3.95	0.5	A	362	544

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	177	44	188	1633	0.108	176	359	0.0	0.1	2.777	A
B - A1173	735	184	62	1743	0.421	731	303	0.0	0.9	4.229	A
C - A1173 Kings Road	297	74	251	1562	0.190	296	542	0.0	0.3	3.278	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	211	53	225	1608	0.131	211	430	0.1	0.2	2.895	A
B - A1173	877	219	74	1735	0.506	876	363	0.9	1.2	4.989	A
C - A1173 Kings Road	355	89	301	1530	0.232	355	649	0.3	0.3	3.535	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	259	65	276	1574	0.164	259	526	0.2	0.2	3.074	A
B - A1173	1075	269	90	1724	0.623	1072	444	1.2	1.9	6.547	A
C - A1173 Kings Road	435	109	368	1486	0.293	434	794	0.3	0.5	3.949	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	259	65	276	1574	0.164	259	527	0.2	0.2	3.074	A
B - A1173	1075	269	90	1724	0.623	1075	445	1.9	2.0	6.604	A
C - A1173 Kings Road	435	109	369	1485	0.293	435	796	0.5	0.5	3.955	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	211	53	226	1607	0.131	211	432	0.2	0.2	2.899	A
B - A1173	877	219	74	1735	0.506	880	364	2.0	1.2	5.040	A
C - A1173 Kings Road	355	89	302	1529	0.232	356	652	0.5	0.4	3.544	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	177	44	189	1632	0.108	177	361	0.2	0.1	2.779	A
B - A1173	735	184	62	1743	0.422	736	304	1.2	0.9	4.270	A
C - A1173 Kings Road	297	74	253	1561	0.190	298	545	0.4	0.3	3.290	A

2032 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	6.81	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.81	A

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kings Road		ONE HOUR	✓	252	100.000
B - A1173		ONE HOUR	✓	1091	100.000
C - A1173 Kings Road		ONE HOUR	✓	395	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Kings Road	B - A1173	C - A1173 Kings Road
From	A - Kings Road	0	171	81
	B - A1173	449	1	641
	C - A1173 Kings Road	145	249	1

Vehicle Mix

HV %s

		To		
		A - Kings Road	B - A1173	C - A1173 Kings Road
From	A - Kings Road	0	77	22
	B - A1173	30	0	15
	C - A1173 Kings Road	9	21	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kings Road	0.18	4.29	0.3	A	231	347
B - A1173	0.70	8.30	2.7	A	1001	1502
C - A1173 Kings Road	0.31	4.32	0.5	A	362	544

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	190	47	188	1633	0.116	189	445	0.0	0.2	3.854	A
B - A1173	821	205	61	1743	0.471	817	316	0.0	1.1	4.670	A
C - A1173 Kings Road	297	74	337	1506	0.197	296	542	0.0	0.3	3.455	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	227	57	225	1608	0.141	226	533	0.2	0.3	4.029	A
B - A1173	981	245	74	1735	0.565	979	378	1.1	1.5	5.729	A
C - A1173 Kings Road	355	89	404	1462	0.243	355	649	0.3	0.4	3.778	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	277	69	276	1574	0.176	277	652	0.3	0.3	4.290	A
B - A1173	1201	300	90	1724	0.697	1197	463	1.5	2.7	8.161	A
C - A1173 Kings Road	435	109	494	1403	0.310	434	793	0.4	0.5	4.315	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	277	69	276	1574	0.176	277	654	0.3	0.3	4.292	A
B - A1173	1201	300	90	1724	0.697	1201	464	2.7	2.7	8.297	A
C - A1173 Kings Road	435	109	495	1402	0.310	435	796	0.5	0.5	4.325	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	227	57	226	1607	0.141	227	536	0.3	0.3	4.031	A
B - A1173	981	245	74	1735	0.565	985	379	2.7	1.6	5.829	A
C - A1173 Kings Road	355	89	406	1461	0.243	356	653	0.5	0.4	3.788	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	190	47	189	1632	0.116	190	448	0.3	0.2	3.861	A
B - A1173	821	205	62	1743	0.471	823	317	1.6	1.1	4.734	A
C - A1173 Kings Road	297	74	340	1504	0.198	298	546	0.4	0.3	3.470	A

2032 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	5.71	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.71	A

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kings Road		ONE HOUR	✓	511	100.000
B - A1173		ONE HOUR	✓	685	100.000
C - A1173 Kings Road		ONE HOUR	✓	717	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A - Kings Road	B - A1173	C - A1173 Kings Road	
From	A - Kings Road	0	331	180
	B - A1173	323	0	362
	C - A1173 Kings Road	78	638	1

Vehicle Mix

HV %s

	To			
	A - Kings Road	B - A1173	C - A1173 Kings Road	
From	A - Kings Road	0	35	6
	B - A1173	57	0	20
	C - A1173 Kings Road	21	11	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kings Road	0.44	6.10	0.9	A	469	703
B - A1173	0.46	5.41	1.1	A	629	943
C - A1173 Kings Road	0.53	5.72	1.2	A	658	987

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	385	96	479	1439	0.267	383	301	0.0	0.4	4.191	A
B - A1173	516	129	136	1695	0.304	513	726	0.0	0.6	4.106	A
C - A1173 Kings Road	540	135	242	1568	0.344	537	407	0.0	0.6	3.902	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	459	115	574	1376	0.334	459	360	0.4	0.6	4.830	A
B - A1173	616	154	162	1677	0.367	615	870	0.6	0.8	4.574	A
C - A1173 Kings Road	645	161	290	1537	0.419	644	488	0.6	0.8	4.508	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	563	141	702	1290	0.436	561	441	0.6	0.9	6.068	A
B - A1173	754	189	199	1653	0.456	753	1064	0.8	1.1	5.392	A
C - A1173 Kings Road	789	197	355	1494	0.528	788	597	0.8	1.2	5.691	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	563	141	704	1289	0.436	563	441	0.9	0.9	6.098	A
B - A1173	754	189	199	1653	0.456	754	1067	1.1	1.1	5.408	A
C - A1173 Kings Road	789	197	356	1494	0.528	789	598	1.2	1.2	5.722	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	459	115	576	1374	0.334	461	361	0.9	0.6	4.858	A
B - A1173	616	154	163	1676	0.367	617	873	1.1	0.8	4.593	A
C - A1173 Kings Road	645	161	291	1536	0.420	646	489	1.2	0.8	4.540	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kings Road	385	96	482	1437	0.268	385	302	0.6	0.5	4.219	A
B - A1173	516	129	137	1694	0.304	516	731	0.8	0.6	4.131	A
C - A1173 Kings Road	540	135	244	1567	0.344	541	409	0.8	0.6	3.931	A

Appendix TN2 E

A1173/ Kiln Lane Junction Assessment Results

<h1>Junctions 10</h1>
<h2>ARCADY 10 - Roundabout Module</h2>
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Filename: A1173-Kiln Lane.j10
Path: P:\23000's\23325\Junction Assessment\1 Base Assessment
Report generation date: 18/10/2023 15:52:12

- »2021 Base, AM
- »2021 Base, PM
- »2025 Base, AM
- »2025 Base, PM
- »2025 Base + Committed, AM
- »2025 Base + Committed, PM
- »2025 Base + Committed + Development, AM
- »2025 Base + Committed + Development, PM
- »2032 Base, AM
- »2032 Base, PM
- »2032 Base + Committed, AM
- »2032 Base + Committed, PM
- »2032 Base + Committed + Development, AM
- »2032 Base + Committed + Development, PM

Summary of junction performance

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Base						
A - Kiln Lane	0.3	3.55	0.16	0.9	4.94	0.46
B - Access	0.0	0.00	0.00	0.0	0.00	0.00
C - A1173 W	2.1	6.36	0.66	0.4	3.55	0.23
D - A1173 N	0.3	3.98	0.19	0.9	4.40	0.46
2025 Base						
A - Kiln Lane	0.3	3.58	0.16	1.0	5.12	0.47
B - Access	0.0	0.00	0.00	0.0	0.00	0.00
C - A1173 W	2.3	6.73	0.68	0.4	3.58	0.24
D - A1173 N	0.3	4.04	0.20	1.0	4.51	0.47
2025 Base + Committed						
A - Kiln Lane	0.5	4.30	0.24	1.4	6.65	0.55
B - Access	0.0	4.63	0.02	0.1	7.91	0.04
C - A1173 W	5.5	13.43	0.83	0.7	4.03	0.33
D - A1173 N	0.4	4.53	0.24	1.3	5.38	0.54
2025 Base + Committed + Development						
A - Kiln Lane	0.5	4.54	0.25	1.7	7.87	0.60
B - Access	0.0	4.92	0.03	0.1	9.25	0.05
C - A1173 W	13.2	29.92	0.93	1.3	5.42	0.46
D - A1173 N	0.6	5.37	0.32	2.0	7.04	0.63
2032 Base						
A - Kiln Lane	0.3	3.61	0.17	1.1	5.43	0.50
B - Access	0.0	0.00	0.00	0.0	0.00	0.00
C - A1173 W	2.6	7.41	0.71	0.5	3.63	0.25
D - A1173 N	0.4	4.14	0.21	1.1	4.70	0.49
2032 Base + Committed						
A - Kiln Lane	0.5	4.35	0.25	1.6	7.16	0.58
B - Access	0.0	4.68	0.03	0.1	8.34	0.05
C - A1173 W	6.7	16.12	0.86	0.7	4.10	0.34
D - A1173 N	0.4	4.65	0.25	1.4	5.65	0.56
2032 Base + Committed + Development						
A - Kiln Lane	0.6	4.60	0.26	1.9	8.60	0.63
B - Access	0.0	4.97	0.03	0.1	9.84	0.05
C - A1173 W	18.8	41.03	0.96	1.3	5.54	0.47
D - A1173 N	0.7	5.51	0.33	2.1	7.49	0.65

Values shown are the highest values encountered over all time segments. Delay is the maximum value of Av. delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	18/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\Arcady
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

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	2021 Base	AM	ONE HOUR	06:45	08:15	15	✓
D2	2021 Base	PM	ONE HOUR	15:45	17:15	15	✓
D3	2025 Base	AM	ONE HOUR	06:45	08:15	15	✓
D4	2025 Base	PM	ONE HOUR	15:45	17:15	15	✓
D5	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D6	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D7	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D8	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓
D9	2032 Base	AM	ONE HOUR	06:45	08:15	15	✓
D10	2032 Base	PM	ONE HOUR	15:45	17:15	15	✓
D11	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D12	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D13	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D14	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2021 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	5.53	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.53	A

Arms

Arms

Arm	Name	Description	No give-way line
A	Kiln Lane		
B	Access		
C	A1173 W		
D	A1173 N		

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
A - Kiln Lane	4.56	7.01	20.3	16.5	45.1	26.0		
B - Access	4.03	5.31	5.9	23.3	45.1	25.0		
C - A1173 W	3.64	8.44	14.1	38.1	45.1	16.0		
D - A1173 N	3.68	8.15	11.9	37.7	45.1	17.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Kiln Lane	0.672	1924
B - Access	0.593	1486
C - A1173 W	0.693	1928
D - A1173 N	0.676	1847

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	2021 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	255	100.000
B - Access		ONE HOUR	✓	0	100.000
C - A1173 W		ONE HOUR	✓	1099	100.000
D - A1173 N		ONE HOUR	✓	263	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To				
	A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N	
A - Kiln Lane	0	0	133	122	
B - Access	0	0	0	0	
C - A1173 W	463	2	0	634	
D - A1173 N	93	0	170	0	

Vehicle Mix

HV %s

From	To				
	A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N	
A - Kiln Lane	0	0	49	50	
B - Access	0	0	0	0	
C - A1173 W	11	0	0	10	
D - A1173 N	26	0	39	0	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.16	3.55	0.3	A	234	351
B - Access	0.00	0.00	0.0	A	0	0
C - A1173 W	0.66	6.36	2.1	A	1008	1513
D - A1173 N	0.19	3.98	0.3	A	241	362

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	192	48	129	1837	0.105	191	417	0.0	0.2	3.267	A
B - Access	0	0	319	1297	0.000	0	1	0.0	0.0	0.000	A
C - A1173 W	827	207	92	1864	0.444	824	227	0.0	0.9	3.807	A
D - A1173 N	198	50	349	1611	0.123	197	567	0.0	0.2	3.412	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	229	57	154	1820	0.126	229	499	0.2	0.2	3.381	A
B - Access	0	0	382	1260	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	988	247	110	1852	0.534	986	272	0.9	1.2	4.586	A
D - A1173 N	236	59	417	1565	0.151	236	679	0.2	0.2	3.633	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	281	70	189	1797	0.156	281	611	0.2	0.3	3.548	A
B - Access	0	0	467	1209	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1210	303	134	1835	0.660	1207	333	1.2	2.1	6.294	A
D - A1173 N	290	72	511	1502	0.193	289	830	0.2	0.3	3.980	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	281	70	189	1797	0.156	281	612	0.3	0.3	3.549	A
B - Access	0	0	468	1209	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1210	303	134	1835	0.660	1210	334	2.1	2.1	6.359	A
D - A1173 N	290	72	512	1501	0.193	290	832	0.3	0.3	3.984	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	229	57	155	1820	0.126	229	501	0.3	0.2	3.386	A
B - Access	0	0	383	1260	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	988	247	110	1852	0.534	991	273	2.1	1.3	4.637	A
D - A1173 N	236	59	419	1564	0.151	237	682	0.3	0.2	3.641	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	192	48	130	1837	0.105	192	419	0.2	0.2	3.271	A
B - Access	0	0	320	1296	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	827	207	92	1864	0.444	829	228	1.3	0.9	3.846	A
D - A1173 N	198	50	351	1610	0.123	198	570	0.2	0.2	3.419	A

2021 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	4.40	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.40	A

Traffic Demand

Demand Set 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	2021 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	616	100.000
B - Access		ONE HOUR	✓	2	100.000
C - A1173 W		ONE HOUR	✓	391	100.000
D - A1173 N		ONE HOUR	✓	705	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	4	493	119
	B - Access	0	0	2	0
	C - A1173 W	194	0	0	197
	D - A1173 N	114	0	591	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	8	26
	B - Access	0	0	0	0
	C - A1173 W	56	0	0	25
	D - A1173 N	42	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.46	4.94	0.9	A	565	848
B - Access	0.00	0.00	0.0	A	0	0
C - A1173 W	0.23	3.55	0.4	A	359	538
D - A1173 N	0.46	4.40	0.9	A	647	970

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	464	116	443	1626	0.285	462	231	0.0	0.4	3.429	A
B - Access	0	0	902	951	0.000	0	3	0.0	0.0	0.000	A
C - A1173 W	294	74	89	1866	0.158	293	813	0.0	0.3	3.173	A
D - A1173 N	531	133	146	1749	0.304	529	237	0.0	0.5	3.336	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	554	138	531	1567	0.353	553	277	0.4	0.6	3.938	A
B - Access	0	0	1080	846	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	352	88	107	1854	0.190	351	973	0.3	0.3	3.322	A
D - A1173 N	634	158	174	1729	0.366	633	284	0.5	0.7	3.717	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	678	170	650	1487	0.456	677	339	0.6	0.9	4.923	A
B - Access	0	0	1322	702	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	430	108	131	1837	0.234	430	1192	0.3	0.4	3.548	A
D - A1173 N	776	194	213	1703	0.456	775	347	0.7	0.9	4.389	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	678	170	651	1487	0.456	678	339	0.9	0.9	4.943	A
B - Access	0	0	1324	701	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	430	108	131	1837	0.234	430	1193	0.4	0.4	3.548	A
D - A1173 N	776	194	214	1703	0.456	776	348	0.9	0.9	4.400	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	554	138	532	1566	0.354	555	277	0.9	0.6	3.956	A
B - Access	0	0	1084	844	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	352	88	107	1853	0.190	352	976	0.4	0.3	3.327	A
D - A1173 N	634	158	175	1729	0.367	635	285	0.9	0.7	3.729	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	464	116	445	1624	0.285	464	232	0.6	0.4	3.448	A
B - Access	0	0	907	949	0.000	0	3	0.0	0.0	0.000	A
C - A1173 W	294	74	90	1866	0.158	295	817	0.3	0.3	3.177	A
D - A1173 N	531	133	146	1748	0.304	531	238	0.7	0.5	3.351	A

2025 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	5.79	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.79	A

Traffic Demand

Demand Set 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	2025 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	262	100.000
B - Access		ONE HOUR	✓	0	100.000
C - A1173 W		ONE HOUR	✓	1128	100.000
D - A1173 N		ONE HOUR	✓	271	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	137	125
	B - Access	0	0	0	0
	C - A1173 W	475	2	0	651
	D - A1173 N	96	0	175	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	49	50
	B - Access	0	0	0	0
	C - A1173 W	11	0	0	10
	D - A1173 N	26	0	39	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.16	3.58	0.3	A	240	361
B - Access	0.00	0.00	0.0	A	0	0
C - A1173 W	0.68	6.73	2.3	A	1035	1553
D - A1173 N	0.20	4.04	0.3	A	249	373

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	197	49	133	1835	0.108	197	428	0.0	0.2	3.283	A
B - Access	0	0	328	1292	0.000	0	1	0.0	0.0	0.000	A
C - A1173 W	849	212	94	1863	0.456	846	234	0.0	0.9	3.893	A
D - A1173 N	204	51	358	1605	0.127	203	582	0.0	0.2	3.441	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	236	59	159	1817	0.130	235	513	0.2	0.2	3.401	A
B - Access	0	0	393	1254	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1014	254	112	1850	0.548	1012	280	0.9	1.3	4.735	A
D - A1173 N	244	61	428	1558	0.156	243	697	0.2	0.2	3.672	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	288	72	195	1793	0.161	288	627	0.2	0.3	3.575	A
B - Access	0	0	481	1201	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1242	310	138	1832	0.678	1238	343	1.3	2.3	6.645	A
D - A1173 N	298	75	524	1493	0.200	298	852	0.2	0.3	4.038	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	288	72	195	1793	0.161	288	629	0.3	0.3	3.575	A
B - Access	0	0	481	1201	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1242	310	138	1832	0.678	1242	344	2.3	2.3	6.728	A
D - A1173 N	298	75	525	1492	0.200	298	854	0.3	0.3	4.043	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	236	59	159	1817	0.130	236	515	0.3	0.2	3.403	A
B - Access	0	0	393	1253	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1014	254	112	1850	0.548	1018	281	2.3	1.4	4.798	A
D - A1173 N	244	61	430	1556	0.157	244	700	0.3	0.3	3.681	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	197	49	133	1834	0.108	197	431	0.2	0.2	3.287	A
B - Access	0	0	329	1291	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	849	212	94	1862	0.456	851	235	1.4	0.9	3.936	A
D - A1173 N	204	51	360	1604	0.127	204	585	0.3	0.2	3.451	A

2025 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	4.52	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.52	A

Traffic Demand

Demand Set 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	2025 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	632	100.000
B - Access		ONE HOUR	✓	2	100.000
C - A1173 W		ONE HOUR	✓	401	100.000
D - A1173 N		ONE HOUR	✓	723	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	4	506	122
	B - Access	0	0	2	0
	C - A1173 W	199	0	0	202
	D - A1173 N	117	0	606	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	8	26
	B - Access	0	0	0	0
	C - A1173 W	56	0	0	25
	D - A1173 N	42	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.47	5.12	1.0	A	580	870
B - Access	0.00	0.00	0.0	A	0	0
C - A1173 W	0.24	3.58	0.4	A	368	552
D - A1173 N	0.47	4.51	1.0	A	663	995

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	476	119	455	1618	0.294	474	237	0.0	0.5	3.485	A
B - Access	0	0	925	938	0.000	0	3	0.0	0.0	0.000	A
C - A1173 W	302	75	91	1864	0.162	301	834	0.0	0.3	3.191	A
D - A1173 N	544	136	149	1746	0.312	542	243	0.0	0.5	3.380	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	568	142	544	1558	0.365	567	284	0.5	0.6	4.031	A
B - Access	0	0	1108	829	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	360	90	110	1852	0.195	360	999	0.3	0.3	3.346	A
D - A1173 N	650	162	179	1726	0.377	649	291	0.5	0.7	3.784	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	696	174	666	1476	0.471	694	348	0.6	1.0	5.102	A
B - Access	0	0	1356	682	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	442	110	134	1835	0.241	441	1222	0.3	0.4	3.582	A
D - A1173 N	796	199	219	1699	0.468	795	356	0.7	1.0	4.502	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	696	174	667	1475	0.472	696	348	1.0	1.0	5.125	A
B - Access	0	0	1359	681	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	442	110	134	1835	0.241	442	1224	0.4	0.4	3.582	A
D - A1173 N	796	199	219	1699	0.469	796	357	1.0	1.0	4.515	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	568	142	546	1557	0.365	570	284	1.0	0.6	4.052	A
B - Access	0	0	1112	827	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	360	90	110	1852	0.195	361	1002	0.4	0.3	3.349	A
D - A1173 N	650	162	179	1726	0.377	651	292	1.0	0.7	3.799	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	476	119	457	1617	0.294	477	238	0.6	0.5	3.508	A
B - Access	0	0	930	935	0.000	0	3	0.0	0.0	0.000	A
C - A1173 W	302	75	92	1864	0.162	302	838	0.3	0.3	3.198	A
D - A1173 N	544	136	150	1746	0.312	545	244	0.7	0.5	3.396	A

2025 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	10.35	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.35	B

Traffic Demand

Demand Set 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	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	386	100.000
B - Access		ONE HOUR	✓	25	100.000
C - A1173 W		ONE HOUR	✓	1379	100.000
D - A1173 N		ONE HOUR	✓	302	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	2	259	125
	B - Access	5	0	14	6
	C - A1173 W	630	11	0	738
	D - A1173 N	96	8	198	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	66	50
	B - Access	0	0	100	0
	C - A1173 W	21	67	0	10
	D - A1173 N	26	0	34	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.24	4.30	0.5	A	354	531
B - Access	0.02	4.63	0.0	A	23	34
C - A1173 W	0.83	13.43	5.5	B	1265	1898
D - A1173 N	0.24	4.53	0.4	A	277	416

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	291	73	163	1815	0.160	289	547	0.0	0.3	3.771	A
B - Access	19	5	436	1228	0.015	19	16	0.0	0.0	4.136	A
C - A1173 W	1038	260	102	1857	0.559	1032	353	0.0	1.4	4.989	A
D - A1173 N	227	57	484	1520	0.150	226	651	0.0	0.2	3.621	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	347	87	195	1793	0.194	347	655	0.3	0.4	3.980	A
B - Access	22	6	523	1176	0.019	22	19	0.0	0.0	4.332	A
C - A1173 W	1240	310	122	1843	0.673	1236	423	1.4	2.3	6.788	A
D - A1173 N	271	68	579	1456	0.187	271	779	0.2	0.3	3.956	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	425	106	239	1764	0.241	425	799	0.4	0.5	4.299	A
B - Access	28	7	640	1107	0.025	27	23	0.0	0.0	4.631	A
C - A1173 W	1518	380	150	1824	0.832	1506	518	2.3	5.3	12.590	B
D - A1173 N	333	83	706	1370	0.243	332	950	0.3	0.4	4.514	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	425	106	239	1763	0.241	425	804	0.5	0.5	4.301	A
B - Access	28	7	641	1106	0.025	28	23	0.0	0.0	4.633	A
C - A1173 W	1518	380	150	1824	0.832	1518	519	5.3	5.5	13.427	B
D - A1173 N	333	83	711	1366	0.243	332	956	0.4	0.4	4.532	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	347	87	195	1792	0.194	347	663	0.5	0.4	3.987	A
B - Access	22	6	524	1176	0.019	23	19	0.0	0.0	4.335	A
C - A1173 W	1240	310	122	1843	0.673	1252	424	5.5	2.4	7.149	A
D - A1173 N	271	68	586	1451	0.187	272	788	0.4	0.3	3.979	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	291	73	164	1814	0.160	291	552	0.4	0.3	3.783	A
B - Access	19	5	439	1226	0.015	19	16	0.0	0.0	4.140	A
C - A1173 W	1038	260	103	1857	0.559	1042	355	2.4	1.5	5.110	A
D - A1173 N	227	57	488	1517	0.150	228	656	0.3	0.2	3.637	A

2025 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	5.49	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.49	A

Traffic Demand

Demand Set 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	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	710	100.000
B - Access		ONE HOUR	✓	25	100.000
C - A1173 W		ONE HOUR	✓	543	100.000
D - A1173 N		ONE HOUR	✓	788	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	8	580	122
	B - Access	4	0	14	7
	C - A1173 W	277	25	0	241
	D - A1173 N	117	47	624	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	14	14	26
	B - Access	0	0	71	0
	C - A1173 W	61	0	0	22
	D - A1173 N	42	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.55	6.65	1.4	A	652	977
B - Access	0.04	7.91	0.1	A	23	34
C - A1173 W	0.33	4.03	0.7	A	498	747
D - A1173 N	0.54	5.38	1.3	A	723	1085

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	535	134	522	1573	0.340	532	298	0.0	0.6	3.999	A
B - Access	19	5	994	897	0.021	19	60	0.0	0.0	5.340	A
C - A1173 W	409	102	100	1859	0.220	407	913	0.0	0.4	3.410	A
D - A1173 N	593	148	229	1692	0.351	591	277	0.0	0.6	3.663	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	638	160	625	1504	0.424	637	357	0.6	0.8	4.808	A
B - Access	22	6	1190	781	0.029	22	72	0.0	0.0	6.186	A
C - A1173 W	488	122	119	1845	0.265	488	1093	0.4	0.5	3.650	A
D - A1173 N	708	177	275	1661	0.426	707	332	0.6	0.8	4.234	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	782	195	765	1410	0.554	779	438	0.8	1.4	6.594	A
B - Access	28	7	1456	623	0.044	27	88	0.0	0.1	7.875	A
C - A1173 W	598	149	146	1827	0.327	597	1338	0.5	0.7	4.028	A
D - A1173 N	868	217	337	1620	0.536	866	407	0.8	1.3	5.348	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	782	195	766	1409	0.555	782	438	1.4	1.4	6.652	A
B - Access	28	7	1460	621	0.044	28	88	0.1	0.1	7.905	A
C - A1173 W	598	149	146	1826	0.327	598	1341	0.7	0.7	4.032	A
D - A1173 N	868	217	337	1619	0.536	868	407	1.3	1.3	5.375	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	638	160	627	1502	0.425	641	358	1.4	0.9	4.853	A
B - Access	22	6	1196	777	0.029	23	72	0.1	0.0	6.213	A
C - A1173 W	488	122	120	1845	0.265	489	1098	0.7	0.5	3.654	A
D - A1173 N	708	177	275	1661	0.427	710	333	1.3	0.8	4.258	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	535	134	525	1571	0.340	536	300	0.9	0.6	4.032	A
B - Access	19	5	1000	893	0.021	19	60	0.0	0.0	5.363	A
C - A1173 W	409	102	100	1858	0.220	409	919	0.5	0.4	3.421	A
D - A1173 N	593	148	231	1691	0.351	594	279	0.8	0.6	3.689	A

2025 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	21.33	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	21.33	C

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	386	100.000
B - Access		ONE HOUR	✓	25	100.000
C - A1173 W		ONE HOUR	✓	1543	100.000
D - A1173 N		ONE HOUR	✓	398	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	2	259	125
	B - Access	5	0	14	6
	C - A1173 W	630	11	0	902
	D - A1173 N	96	8	294	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	66	50
	B - Access	0	0	100	0
	C - A1173 W	21	67	0	18
	D - A1173 N	26	0	45	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.25	4.54	0.5	A	354	531
B - Access	0.03	4.92	0.0	A	23	34
C - A1173 W	0.93	29.92	13.2	D	1416	2124
D - A1173 N	0.32	5.37	0.6	A	365	548

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	291	73	235	1766	0.165	289	547	0.0	0.3	3.895	A
B - Access	19	5	508	1185	0.016	19	16	0.0	0.0	4.287	A
C - A1173 W	1162	290	102	1857	0.626	1154	425	0.0	2.0	6.050	A
D - A1173 N	300	75	483	1521	0.197	298	773	0.0	0.3	4.081	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	347	87	281	1735	0.200	347	655	0.3	0.4	4.146	A
B - Access	22	6	609	1125	0.020	22	19	0.0	0.0	4.533	A
C - A1173 W	1387	347	122	1843	0.753	1381	509	2.0	3.5	9.182	A
D - A1173 N	358	89	578	1456	0.246	357	925	0.3	0.4	4.541	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	425	106	344	1693	0.251	424	791	0.4	0.5	4.537	A
B - Access	28	7	745	1044	0.026	27	23	0.0	0.0	4.916	A
C - A1173 W	1699	425	150	1824	0.931	1666	623	3.5	11.6	23.503	C
D - A1173 N	438	110	698	1375	0.319	437	1118	0.4	0.6	5.319	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	425	106	345	1692	0.251	425	802	0.5	0.5	4.542	A
B - Access	28	7	746	1044	0.026	28	23	0.0	0.0	4.919	A
C - A1173 W	1699	425	150	1824	0.931	1692	624	11.6	13.2	29.916	D
D - A1173 N	438	110	709	1368	0.320	438	1134	0.6	0.6	5.369	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	347	87	282	1734	0.200	348	673	0.5	0.4	4.153	A
B - Access	22	6	611	1124	0.020	23	19	0.0	0.0	4.537	A
C - A1173 W	1387	347	122	1843	0.753	1425	511	13.2	3.8	11.142	B
D - A1173 N	358	89	596	1444	0.248	359	951	0.6	0.5	4.603	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	291	73	236	1765	0.165	291	553	0.4	0.3	3.907	A
B - Access	19	5	511	1183	0.016	19	16	0.0	0.0	4.293	A
C - A1173 W	1162	290	103	1857	0.626	1169	427	3.8	2.0	6.314	A
D - A1173 N	300	75	489	1516	0.198	300	782	0.5	0.3	4.106	A

2025 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	6.80	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.80	A

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	710	100.000
B - Access		ONE HOUR	✓	25	100.000
C - A1173 W		ONE HOUR	✓	762	100.000
D - A1173 N		ONE HOUR	✓	920	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	8	580	122
	B - Access	4	0	14	7
	C - A1173 W	277	25	0	460
	D - A1173 N	117	47	756	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	14	14	26
	B - Access	0	0	71	0
	C - A1173 W	61	0	0	46
	D - A1173 N	42	0	17	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.60	7.87	1.7	A	652	977
B - Access	0.05	9.25	0.1	A	23	34
C - A1173 W	0.46	5.42	1.3	A	699	1049
D - A1173 N	0.63	7.04	2.0	A	844	1266

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	535	134	620	1507	0.355	532	298	0.0	0.6	4.268	A
B - Access	19	5	1092	839	0.022	19	60	0.0	0.0	5.720	A
C - A1173 W	574	143	100	1859	0.309	571	1012	0.0	0.7	4.151	A
D - A1173 N	693	173	229	1692	0.409	689	441	0.0	0.8	4.245	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	638	160	743	1424	0.448	637	357	0.6	0.9	5.292	A
B - Access	22	6	1308	711	0.032	22	72	0.0	0.0	6.815	A
C - A1173 W	685	171	119	1845	0.371	684	1211	0.7	0.9	4.611	A
D - A1173 N	827	207	275	1661	0.498	826	529	0.8	1.2	5.102	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	782	195	909	1313	0.595	779	437	0.9	1.7	7.766	A
B - Access	28	7	1600	538	0.051	27	88	0.0	0.1	9.187	A
C - A1173 W	839	210	146	1827	0.459	837	1481	0.9	1.3	5.408	A
D - A1173 N	1013	253	336	1620	0.625	1010	647	1.2	1.9	6.965	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	782	195	912	1311	0.596	782	438	1.7	1.7	7.874	A
B - Access	28	7	1605	535	0.051	28	88	0.1	0.1	9.248	A
C - A1173 W	839	210	146	1826	0.459	839	1486	1.3	1.3	5.424	A
D - A1173 N	1013	253	337	1619	0.626	1013	648	1.9	2.0	7.038	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	638	160	747	1422	0.449	641	359	1.7	1.0	5.366	A
B - Access	22	6	1316	706	0.032	23	72	0.1	0.0	6.866	A
C - A1173 W	685	171	120	1845	0.371	687	1219	1.3	0.9	4.633	A
D - A1173 N	827	207	276	1661	0.498	830	531	2.0	1.2	5.159	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	535	134	625	1504	0.355	536	300	1.0	0.6	4.315	A
B - Access	19	5	1100	834	0.023	19	60	0.0	0.0	5.753	A
C - A1173 W	574	143	100	1858	0.309	575	1019	0.9	0.7	4.175	A
D - A1173 N	693	173	231	1691	0.410	694	444	1.2	0.8	4.288	A

2032 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	6.28	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.28	A

Traffic Demand

Demand Set 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	2032 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	272	100.000
B - Access		ONE HOUR	✓	0	100.000
C - A1173 W		ONE HOUR	✓	1174	100.000
D - A1173 N		ONE HOUR	✓	282	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	142	130
	B - Access	0	0	0	0
	C - A1173 W	495	2	0	677
	D - A1173 N	100	0	182	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	49	50
	B - Access	0	0	0	0
	C - A1173 W	11	0	0	10
	D - A1173 N	26	0	39	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.17	3.61	0.3	A	250	374
B - Access	0.00	0.00	0.0	A	0	0
C - A1173 W	0.71	7.41	2.6	A	1077	1616
D - A1173 N	0.21	4.14	0.4	A	259	388

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	205	51	138	1831	0.112	204	446	0.0	0.2	3.305	A
B - Access	0	0	341	1284	0.000	0	1	0.0	0.0	0.000	A
C - A1173 W	884	221	98	1860	0.475	880	243	0.0	1.0	4.038	A
D - A1173 N	212	53	372	1595	0.133	211	605	0.0	0.2	3.486	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	245	61	165	1813	0.135	244	534	0.2	0.2	3.430	A
B - Access	0	0	408	1245	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1055	264	117	1847	0.571	1054	291	1.0	1.5	4.997	A
D - A1173 N	254	63	446	1546	0.164	253	724	0.2	0.3	3.735	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	299	75	202	1788	0.168	299	653	0.2	0.3	3.614	A
B - Access	0	0	499	1190	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1293	323	143	1829	0.707	1288	356	1.5	2.6	7.288	A
D - A1173 N	310	78	545	1478	0.210	310	886	0.3	0.4	4.131	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	299	75	203	1788	0.168	299	655	0.3	0.3	3.614	A
B - Access	0	0	500	1190	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1293	323	143	1829	0.707	1292	357	2.6	2.6	7.408	A
D - A1173 N	310	78	547	1477	0.210	310	888	0.4	0.4	4.137	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	245	61	166	1813	0.135	245	537	0.3	0.2	3.432	A
B - Access	0	0	409	1244	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1055	264	117	1847	0.572	1060	292	2.6	1.5	5.080	A
D - A1173 N	254	63	449	1544	0.164	254	728	0.4	0.3	3.742	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	205	51	139	1831	0.112	205	449	0.2	0.2	3.309	A
B - Access	0	0	342	1283	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	884	221	98	1860	0.475	886	244	1.5	1.0	4.089	A
D - A1173 N	212	53	375	1594	0.133	213	609	0.3	0.2	3.495	A

2032 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	4.72	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.72	A

Traffic Demand

Demand Set 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	2032 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	656	100.000
B - Access		ONE HOUR	✓	2	100.000
C - A1173 W		ONE HOUR	✓	416	100.000
D - A1173 N		ONE HOUR	✓	751	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	4	525	127
	B - Access	0	0	2	0
	C - A1173 W	206	0	0	210
	D - A1173 N	122	0	629	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	8	26
	B - Access	0	0	0	0
	C - A1173 W	56	0	0	25
	D - A1173 N	42	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.50	5.43	1.1	A	602	903
B - Access	0.00	0.00	0.0	A	0	0
C - A1173 W	0.25	3.63	0.5	A	382	573
D - A1173 N	0.49	4.70	1.1	A	689	1034

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	494	123	472	1607	0.307	492	246	0.0	0.5	3.578	A
B - Access	0	0	961	917	0.000	0	3	0.0	0.0	0.000	A
C - A1173 W	313	78	95	1862	0.168	312	865	0.0	0.3	3.219	A
D - A1173 N	565	141	155	1743	0.324	563	253	0.0	0.5	3.452	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	590	147	565	1544	0.382	589	295	0.5	0.7	4.180	A
B - Access	0	0	1150	804	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	374	93	114	1849	0.202	374	1036	0.3	0.3	3.383	A
D - A1173 N	675	169	185	1722	0.392	674	303	0.5	0.7	3.890	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	722	181	691	1459	0.495	721	361	0.7	1.1	5.399	A
B - Access	0	0	1408	652	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	458	115	140	1831	0.250	458	1268	0.3	0.5	3.634	A
D - A1173 N	827	207	227	1694	0.488	825	371	0.7	1.1	4.687	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	722	181	693	1458	0.495	722	361	1.1	1.1	5.428	A
B - Access	0	0	1410	650	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	458	115	140	1831	0.250	458	1271	0.5	0.5	3.634	A
D - A1173 N	827	207	227	1694	0.488	827	371	1.1	1.1	4.703	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	590	147	567	1543	0.382	591	295	1.1	0.7	4.207	A
B - Access	0	0	1154	802	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	374	93	114	1848	0.202	374	1040	0.5	0.4	3.388	A
D - A1173 N	675	169	185	1722	0.392	676	303	1.1	0.7	3.906	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	494	123	474	1605	0.308	495	247	0.7	0.5	3.603	A
B - Access	0	0	966	914	0.000	0	3	0.0	0.0	0.000	A
C - A1173 W	313	78	96	1861	0.168	313	870	0.4	0.3	3.224	A
D - A1173 N	565	141	155	1742	0.325	566	254	0.7	0.5	3.471	A

2032 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	12.16	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.16	B

Traffic Demand

Demand Set 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	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	396	100.000
B - Access		ONE HOUR	✓	25	100.000
C - A1173 W		ONE HOUR	✓	1424	100.000
D - A1173 N		ONE HOUR	✓	313	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	2	264	130
	B - Access	5	0	14	6
	C - A1173 W	649	11	0	764
	D - A1173 N	100	8	205	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	66	50
	B - Access	0	0	100	0
	C - A1173 W	21	67	0	10
	D - A1173 N	26	0	34	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.25	4.35	0.5	A	363	545
B - Access	0.03	4.68	0.0	A	23	34
C - A1173 W	0.86	16.12	6.7	C	1307	1960
D - A1173 N	0.25	4.65	0.4	A	287	431

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	298	75	168	1811	0.165	297	564	0.0	0.3	3.797	A
B - Access	19	5	449	1220	0.015	19	16	0.0	0.0	4.162	A
C - A1173 W	1072	268	106	1854	0.578	1066	362	0.0	1.6	5.213	A
D - A1173 N	236	59	498	1511	0.156	235	674	0.0	0.2	3.673	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	356	89	201	1789	0.199	356	676	0.3	0.4	4.015	A
B - Access	22	6	538	1167	0.019	22	19	0.0	0.0	4.366	A
C - A1173 W	1280	320	127	1840	0.696	1276	434	1.6	2.6	7.294	A
D - A1173 N	281	70	596	1444	0.195	281	807	0.2	0.3	4.029	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	436	109	246	1758	0.248	435	823	0.4	0.5	4.347	A
B - Access	28	7	659	1096	0.025	27	23	0.0	0.0	4.679	A
C - A1173 W	1568	392	155	1820	0.861	1552	531	2.6	6.4	14.684	B
D - A1173 N	345	86	725	1357	0.254	344	983	0.3	0.4	4.627	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	436	109	247	1758	0.248	436	830	0.5	0.5	4.352	A
B - Access	28	7	659	1095	0.025	28	23	0.0	0.0	4.682	A
C - A1173 W	1568	392	155	1820	0.861	1567	532	6.4	6.7	16.116	C
D - A1173 N	345	86	732	1352	0.255	345	990	0.4	0.4	4.651	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	356	89	202	1788	0.199	356	685	0.5	0.4	4.020	A
B - Access	22	6	539	1167	0.019	23	19	0.0	0.0	4.370	A
C - A1173 W	1280	320	127	1840	0.696	1296	435	6.7	2.7	7.838	A
D - A1173 N	281	70	605	1438	0.196	282	818	0.4	0.3	4.058	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	298	75	169	1810	0.165	298	570	0.4	0.3	3.809	A
B - Access	19	5	451	1219	0.015	19	16	0.0	0.0	4.168	A
C - A1173 W	1072	268	106	1854	0.578	1076	364	2.7	1.6	5.358	A
D - A1173 N	236	59	503	1507	0.156	236	680	0.3	0.2	3.687	A

2032 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	5.79	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.79	A

Traffic Demand

Demand Set 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	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	735	100.000
B - Access		ONE HOUR	✓	25	100.000
C - A1173 W		ONE HOUR	✓	558	100.000
D - A1173 N		ONE HOUR	✓	816	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	9	599	127
	B - Access	4	0	14	7
	C - A1173 W	284	25	0	249
	D - A1173 N	122	47	647	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	14	14	26
	B - Access	0	0	71	0
	C - A1173 W	61	0	0	22
	D - A1173 N	42	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.58	7.16	1.6	A	674	1012
B - Access	0.05	8.34	0.1	A	23	34
C - A1173 W	0.34	4.10	0.7	A	512	768
D - A1173 N	0.56	5.65	1.4	A	749	1123

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	553	138	539	1562	0.354	551	307	0.0	0.6	4.118	A
B - Access	19	5	1029	876	0.021	19	61	0.0	0.0	5.470	A
C - A1173 W	420	105	103	1856	0.226	418	944	0.0	0.4	3.443	A
D - A1173 N	614	154	235	1688	0.364	612	287	0.0	0.6	3.744	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	661	165	646	1490	0.443	660	368	0.6	0.9	5.017	A
B - Access	22	6	1232	756	0.030	22	73	0.0	0.0	6.396	A
C - A1173 W	502	125	124	1842	0.272	501	1131	0.4	0.5	3.695	A
D - A1173 N	734	183	281	1657	0.443	733	344	0.6	0.9	4.369	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	809	202	790	1393	0.581	807	451	0.9	1.6	7.082	A
B - Access	28	7	1507	593	0.046	27	89	0.0	0.1	8.298	A
C - A1173 W	614	154	151	1823	0.337	614	1383	0.5	0.7	4.094	A
D - A1173 N	898	225	344	1614	0.557	896	421	0.9	1.4	5.615	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	809	202	792	1392	0.581	809	451	1.6	1.6	7.158	A
B - Access	28	7	1512	590	0.047	28	89	0.1	0.1	8.336	A
C - A1173 W	614	154	152	1822	0.337	614	1387	0.7	0.7	4.100	A
D - A1173 N	898	225	345	1614	0.557	898	422	1.4	1.4	5.649	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	661	165	648	1488	0.444	663	369	1.6	0.9	5.075	A
B - Access	22	6	1238	752	0.030	23	73	0.1	0.0	6.432	A
C - A1173 W	502	125	125	1841	0.272	502	1137	0.7	0.5	3.703	A
D - A1173 N	734	183	282	1657	0.443	736	345	1.4	0.9	4.400	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	553	138	542	1559	0.355	555	309	0.9	0.6	4.156	A
B - Access	19	5	1036	872	0.022	19	61	0.0	0.0	5.497	A
C - A1173 W	420	105	104	1856	0.226	421	950	0.5	0.4	3.452	A
D - A1173 N	614	154	236	1688	0.364	615	289	0.9	0.6	3.773	A

2032 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	28.68	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	28.68	D

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	396	100.000
B - Access		ONE HOUR	✓	25	100.000
C - A1173 W		ONE HOUR	✓	1588	100.000
D - A1173 N		ONE HOUR	✓	409	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	2	264	130
	B - Access	5	0	14	6
	C - A1173 W	649	11	0	928
	D - A1173 N	100	8	301	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	66	50
	B - Access	0	0	100	0
	C - A1173 W	21	67	0	18
	D - A1173 N	26	0	45	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.26	4.60	0.6	A	363	545
B - Access	0.03	4.97	0.0	A	23	34
C - A1173 W	0.96	41.03	18.8	E	1457	2186
D - A1173 N	0.33	5.51	0.7	A	375	563

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	298	75	240	1763	0.169	297	564	0.0	0.3	3.923	A
B - Access	19	5	521	1177	0.016	19	16	0.0	0.0	4.314	A
C - A1173 W	1196	299	106	1855	0.645	1187	434	0.0	2.1	6.364	A
D - A1173 N	308	77	497	1511	0.204	307	796	0.0	0.4	4.141	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	356	89	287	1731	0.206	356	675	0.3	0.4	4.184	A
B - Access	22	6	624	1116	0.020	22	19	0.0	0.0	4.570	A
C - A1173 W	1428	357	127	1840	0.776	1420	520	2.1	3.9	10.070	B
D - A1173 N	368	92	595	1445	0.254	367	952	0.4	0.5	4.629	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	436	109	351	1688	0.258	435	811	0.4	0.6	4.593	A
B - Access	28	7	764	1033	0.027	27	23	0.0	0.0	4.970	A
C - A1173 W	1748	437	155	1820	0.961	1703	636	3.9	15.4	29.024	D
D - A1173 N	450	113	713	1365	0.330	449	1144	0.5	0.7	5.448	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	436	109	352	1687	0.258	436	825	0.6	0.6	4.599	A
B - Access	28	7	765	1033	0.027	28	23	0.0	0.0	4.973	A
C - A1173 W	1748	437	155	1820	0.961	1735	637	15.4	18.8	41.031	E
D - A1173 N	450	113	727	1356	0.332	450	1164	0.7	0.7	5.511	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	356	89	289	1730	0.206	357	702	0.6	0.4	4.192	A
B - Access	22	6	626	1115	0.020	23	19	0.0	0.0	4.577	A
C - A1173 W	1428	357	127	1840	0.776	1485	521	18.8	4.4	13.921	B
D - A1173 N	368	92	622	1427	0.258	368	991	0.7	0.5	4.720	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	298	75	241	1762	0.169	298	571	0.4	0.3	3.935	A
B - Access	19	5	524	1176	0.016	19	16	0.0	0.0	4.321	A
C - A1173 W	1196	299	106	1854	0.645	1204	437	4.4	2.2	6.703	A
D - A1173 N	308	77	504	1506	0.204	308	806	0.5	0.4	4.170	A

2032 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	7.23	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.23	A

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	735	100.000
B - Access		ONE HOUR	✓	25	100.000
C - A1173 W		ONE HOUR	✓	777	100.000
D - A1173 N		ONE HOUR	✓	948	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	9	599	127
	B - Access	4	0	14	7
	C - A1173 W	284	25	0	468
	D - A1173 N	122	47	779	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	14	14	26
	B - Access	0	0	71	0
	C - A1173 W	61	0	0	46
	D - A1173 N	42	0	17	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.63	8.60	1.9	A	674	1012
B - Access	0.05	9.84	0.1	A	23	34
C - A1173 W	0.47	5.54	1.3	A	713	1069
D - A1173 N	0.65	7.49	2.1	A	870	1305

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	553	138	638	1495	0.370	551	307	0.0	0.7	4.404	A
B - Access	19	5	1128	818	0.023	19	61	0.0	0.0	5.869	A
C - A1173 W	585	146	103	1856	0.315	582	1043	0.0	0.7	4.199	A
D - A1173 N	714	178	235	1689	0.423	710	451	0.0	0.9	4.353	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	661	165	764	1411	0.468	659	368	0.7	1.0	5.544	A
B - Access	22	6	1350	686	0.033	22	73	0.0	0.0	7.071	A
C - A1173 W	699	175	124	1842	0.379	698	1249	0.7	0.9	4.676	A
D - A1173 N	852	213	281	1657	0.514	851	540	0.9	1.2	5.289	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	809	202	934	1296	0.624	806	450	1.0	1.9	8.447	A
B - Access	28	7	1651	508	0.054	27	89	0.0	0.1	9.764	A
C - A1173 W	855	214	151	1823	0.469	854	1527	0.9	1.3	5.521	A
D - A1173 N	1044	261	344	1615	0.646	1040	661	1.2	2.1	7.393	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	809	202	937	1294	0.625	809	451	1.9	1.9	8.597	A
B - Access	28	7	1657	504	0.055	28	89	0.1	0.1	9.842	A
C - A1173 W	855	214	152	1822	0.469	855	1532	1.3	1.3	5.541	A
D - A1173 N	1044	261	345	1614	0.647	1044	663	2.1	2.1	7.487	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	661	165	768	1408	0.469	664	370	1.9	1.0	5.638	A
B - Access	22	6	1359	680	0.033	23	73	0.1	0.0	7.130	A
C - A1173 W	699	175	125	1841	0.379	700	1257	1.3	0.9	4.701	A
D - A1173 N	852	213	282	1656	0.514	856	543	2.1	1.3	5.358	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	553	138	642	1492	0.371	555	309	1.0	0.7	4.456	A
B - Access	19	5	1136	813	0.023	19	61	0.0	0.0	5.906	A
C - A1173 W	585	146	104	1856	0.315	586	1050	0.9	0.7	4.223	A
D - A1173 N	714	178	236	1688	0.423	715	454	1.3	0.9	4.401	A

Appendix TN2 F

A1173/ Kiln Lane Stena AM Junction Assessment Results

<h1>Junctions 10</h1>
<h2>ARCADY 10 - Roundabout Module</h2>
Version: 10.0.4.1693 © Copyright TRL Software Limited, 2021
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Filename: A1173-Kiln Lane.j10

Path: P:\23000's\23325\Junction Assessment\1 Base Assessment - Stena AM

Report generation date: 19/10/2023 11:06:08

-
- »2021 Base, AM
 - »2021 Base, PM
 - »2025 Base, AM
 - »2025 Base, PM
 - »2025 Base + Committed, AM
 - »2025 Base + Committed, PM
 - »2025 Base + Committed + Development, AM
 - »2025 Base + Committed + Development, PM
 - »2032 Base, AM
 - »2032 Base, PM
 - »2032 Base + Committed, AM
 - »2032 Base + Committed, PM
 - »2032 Base + Committed + Development, AM
 - »2032 Base + Committed + Development, PM

Summary of junction performance

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Base						
A - Kiln Lane	0.3	3.55	0.16	0.9	4.94	0.46
B - Access	0.0	0.00	0.00	0.0	0.00	0.00
C - A1173 W	2.1	6.36	0.66	0.4	3.55	0.23
D - A1173 N	0.3	3.98	0.19	0.9	4.40	0.46
2025 Base						
A - Kiln Lane	0.3	3.58	0.16	1.0	5.12	0.47
B - Access	0.0	0.00	0.00	0.0	0.00	0.00
C - A1173 W	2.3	6.73	0.68	0.4	3.58	0.24
D - A1173 N	0.3	4.04	0.20	1.0	4.51	0.47
2025 Base + Committed						
A - Kiln Lane	0.5	4.30	0.24	1.4	6.65	0.55
B - Access	0.0	4.63	0.02	0.1	7.91	0.04
C - A1173 W	5.5	13.43	0.83	0.7	4.03	0.33
D - A1173 N	0.4	4.53	0.24	1.3	5.38	0.54
2025 Base + Committed + Development						
A - Kiln Lane	0.5	4.48	0.25	1.7	7.87	0.60
B - Access	0.0	4.85	0.03	0.1	9.25	0.05
C - A1173 W	6.8	16.29	0.86	1.3	5.42	0.46
D - A1173 N	0.6	5.15	0.30	2.0	7.04	0.63
2032 Base						
A - Kiln Lane	0.3	3.61	0.17	1.1	5.43	0.50
B - Access	0.0	0.00	0.00	0.0	0.00	0.00
C - A1173 W	2.6	7.41	0.71	0.5	3.63	0.25
D - A1173 N	0.4	4.14	0.21	1.1	4.70	0.49
2032 Base + Committed						
A - Kiln Lane	0.5	4.35	0.25	1.6	7.16	0.58
B - Access	0.0	4.68	0.03	0.1	8.34	0.05
C - A1173 W	6.7	16.12	0.86	0.7	4.10	0.34
D - A1173 N	0.4	4.65	0.25	1.4	5.65	0.56
2032 Base + Committed + Development						
A - Kiln Lane	0.5	4.54	0.26	1.9	8.60	0.63
B - Access	0.0	4.90	0.03	0.1	9.84	0.05
C - A1173 W	8.6	20.23	0.89	1.3	5.54	0.47
D - A1173 N	0.6	5.30	0.31	2.1	7.49	0.65

Values shown are the highest values encountered over all time segments. Delay is the maximum value of Av. delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	18/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\Arcady
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

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	2021 Base	AM	ONE HOUR	06:45	08:15	15	✓
D2	2021 Base	PM	ONE HOUR	15:45	17:15	15	✓
D3	2025 Base	AM	ONE HOUR	06:45	08:15	15	✓
D4	2025 Base	PM	ONE HOUR	15:45	17:15	15	✓
D5	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D6	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D7	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D8	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓
D9	2032 Base	AM	ONE HOUR	06:45	08:15	15	✓
D10	2032 Base	PM	ONE HOUR	15:45	17:15	15	✓
D11	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D12	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D13	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D14	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2021 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	5.53	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.53	A

Arms

Arms

Arm	Name	Description	No give-way line
A	Kiln Lane		
B	Access		
C	A1173 W		
D	A1173 N		

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
A - Kiln Lane	4.56	7.01	20.3	16.5	45.1	26.0		
B - Access	4.03	5.31	5.9	23.3	45.1	25.0		
C - A1173 W	3.64	8.44	14.1	38.1	45.1	16.0		
D - A1173 N	3.68	8.15	11.9	37.7	45.1	17.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Kiln Lane	0.672	1924
B - Access	0.593	1486
C - A1173 W	0.693	1928
D - A1173 N	0.676	1847

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	2021 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	255	100.000
B - Access		ONE HOUR	✓	0	100.000
C - A1173 W		ONE HOUR	✓	1099	100.000
D - A1173 N		ONE HOUR	✓	263	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	133	122
	B - Access	0	0	0	0
	C - A1173 W	463	2	0	634
	D - A1173 N	93	0	170	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	49	50
	B - Access	0	0	0	0
	C - A1173 W	11	0	0	10
	D - A1173 N	26	0	39	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.16	3.55	0.3	A	234	351
B - Access	0.00	0.00	0.0	A	0	0
C - A1173 W	0.66	6.36	2.1	A	1008	1513
D - A1173 N	0.19	3.98	0.3	A	241	362

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	192	48	129	1837	0.105	191	417	0.0	0.2	3.267	A
B - Access	0	0	319	1297	0.000	0	1	0.0	0.0	0.000	A
C - A1173 W	827	207	92	1864	0.444	824	227	0.0	0.9	3.807	A
D - A1173 N	198	50	349	1611	0.123	197	567	0.0	0.2	3.412	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	229	57	154	1820	0.126	229	499	0.2	0.2	3.381	A
B - Access	0	0	382	1260	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	988	247	110	1852	0.534	986	272	0.9	1.2	4.586	A
D - A1173 N	236	59	417	1565	0.151	236	679	0.2	0.2	3.633	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	281	70	189	1797	0.156	281	611	0.2	0.3	3.548	A
B - Access	0	0	467	1209	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1210	303	134	1835	0.660	1207	333	1.2	2.1	6.294	A
D - A1173 N	290	72	511	1502	0.193	289	830	0.2	0.3	3.980	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	281	70	189	1797	0.156	281	612	0.3	0.3	3.549	A
B - Access	0	0	468	1209	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1210	303	134	1835	0.660	1210	334	2.1	2.1	6.359	A
D - A1173 N	290	72	512	1501	0.193	290	832	0.3	0.3	3.984	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	229	57	155	1820	0.126	229	501	0.3	0.2	3.386	A
B - Access	0	0	383	1260	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	988	247	110	1852	0.534	991	273	2.1	1.3	4.637	A
D - A1173 N	236	59	419	1564	0.151	237	682	0.3	0.2	3.641	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	192	48	130	1837	0.105	192	419	0.2	0.2	3.271	A
B - Access	0	0	320	1296	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	827	207	92	1864	0.444	829	228	1.3	0.9	3.846	A
D - A1173 N	198	50	351	1610	0.123	198	570	0.2	0.2	3.419	A

2021 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	4.40	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.40	A

Traffic Demand

Demand Set 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	2021 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	616	100.000
B - Access		ONE HOUR	✓	2	100.000
C - A1173 W		ONE HOUR	✓	391	100.000
D - A1173 N		ONE HOUR	✓	705	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	4	493	119
	B - Access	0	0	2	0
	C - A1173 W	194	0	0	197
	D - A1173 N	114	0	591	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	8	26
	B - Access	0	0	0	0
	C - A1173 W	56	0	0	25
	D - A1173 N	42	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.46	4.94	0.9	A	565	848
B - Access	0.00	0.00	0.0	A	0	0
C - A1173 W	0.23	3.55	0.4	A	359	538
D - A1173 N	0.46	4.40	0.9	A	647	970

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	464	116	443	1626	0.285	462	231	0.0	0.4	3.429	A
B - Access	0	0	902	951	0.000	0	3	0.0	0.0	0.000	A
C - A1173 W	294	74	89	1866	0.158	293	813	0.0	0.3	3.173	A
D - A1173 N	531	133	146	1749	0.304	529	237	0.0	0.5	3.336	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	554	138	531	1567	0.353	553	277	0.4	0.6	3.938	A
B - Access	0	0	1080	846	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	352	88	107	1854	0.190	351	973	0.3	0.3	3.322	A
D - A1173 N	634	158	174	1729	0.366	633	284	0.5	0.7	3.717	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	678	170	650	1487	0.456	677	339	0.6	0.9	4.923	A
B - Access	0	0	1322	702	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	430	108	131	1837	0.234	430	1192	0.3	0.4	3.548	A
D - A1173 N	776	194	213	1703	0.456	775	347	0.7	0.9	4.389	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	678	170	651	1487	0.456	678	339	0.9	0.9	4.943	A
B - Access	0	0	1324	701	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	430	108	131	1837	0.234	430	1193	0.4	0.4	3.548	A
D - A1173 N	776	194	214	1703	0.456	776	348	0.9	0.9	4.400	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	554	138	532	1566	0.354	555	277	0.9	0.6	3.956	A
B - Access	0	0	1084	844	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	352	88	107	1853	0.190	352	976	0.4	0.3	3.327	A
D - A1173 N	634	158	175	1729	0.367	635	285	0.9	0.7	3.729	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	464	116	445	1624	0.285	464	232	0.6	0.4	3.448	A
B - Access	0	0	907	949	0.000	0	3	0.0	0.0	0.000	A
C - A1173 W	294	74	90	1866	0.158	295	817	0.3	0.3	3.177	A
D - A1173 N	531	133	146	1748	0.304	531	238	0.7	0.5	3.351	A

2025 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	5.79	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.79	A

Traffic Demand

Demand Set 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	2025 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	262	100.000
B - Access		ONE HOUR	✓	0	100.000
C - A1173 W		ONE HOUR	✓	1128	100.000
D - A1173 N		ONE HOUR	✓	271	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	137	125
	B - Access	0	0	0	0
	C - A1173 W	475	2	0	651
	D - A1173 N	96	0	175	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	49	50
	B - Access	0	0	0	0
	C - A1173 W	11	0	0	10
	D - A1173 N	26	0	39	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.16	3.58	0.3	A	240	361
B - Access	0.00	0.00	0.0	A	0	0
C - A1173 W	0.68	6.73	2.3	A	1035	1553
D - A1173 N	0.20	4.04	0.3	A	249	373

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	197	49	133	1835	0.108	197	428	0.0	0.2	3.283	A
B - Access	0	0	328	1292	0.000	0	1	0.0	0.0	0.000	A
C - A1173 W	849	212	94	1863	0.456	846	234	0.0	0.9	3.893	A
D - A1173 N	204	51	358	1605	0.127	203	582	0.0	0.2	3.441	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	236	59	159	1817	0.130	235	513	0.2	0.2	3.401	A
B - Access	0	0	393	1254	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1014	254	112	1850	0.548	1012	280	0.9	1.3	4.735	A
D - A1173 N	244	61	428	1558	0.156	243	697	0.2	0.2	3.672	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	288	72	195	1793	0.161	288	627	0.2	0.3	3.575	A
B - Access	0	0	481	1201	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1242	310	138	1832	0.678	1238	343	1.3	2.3	6.645	A
D - A1173 N	298	75	524	1493	0.200	298	852	0.2	0.3	4.038	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	288	72	195	1793	0.161	288	629	0.3	0.3	3.575	A
B - Access	0	0	481	1201	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1242	310	138	1832	0.678	1242	344	2.3	2.3	6.728	A
D - A1173 N	298	75	525	1492	0.200	298	854	0.3	0.3	4.043	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	236	59	159	1817	0.130	236	515	0.3	0.2	3.403	A
B - Access	0	0	393	1253	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1014	254	112	1850	0.548	1018	281	2.3	1.4	4.798	A
D - A1173 N	244	61	430	1556	0.157	244	700	0.3	0.3	3.681	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	197	49	133	1834	0.108	197	431	0.2	0.2	3.287	A
B - Access	0	0	329	1291	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	849	212	94	1862	0.456	851	235	1.4	0.9	3.936	A
D - A1173 N	204	51	360	1604	0.127	204	585	0.3	0.2	3.451	A

2025 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	4.52	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.52	A

Traffic Demand

Demand Set 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	2025 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	632	100.000
B - Access		ONE HOUR	✓	2	100.000
C - A1173 W		ONE HOUR	✓	401	100.000
D - A1173 N		ONE HOUR	✓	723	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	4	506	122
	B - Access	0	0	2	0
	C - A1173 W	199	0	0	202
	D - A1173 N	117	0	606	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	8	26
	B - Access	0	0	0	0
	C - A1173 W	56	0	0	25
	D - A1173 N	42	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.47	5.12	1.0	A	580	870
B - Access	0.00	0.00	0.0	A	0	0
C - A1173 W	0.24	3.58	0.4	A	368	552
D - A1173 N	0.47	4.51	1.0	A	663	995

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	476	119	455	1618	0.294	474	237	0.0	0.5	3.485	A
B - Access	0	0	925	938	0.000	0	3	0.0	0.0	0.000	A
C - A1173 W	302	75	91	1864	0.162	301	834	0.0	0.3	3.191	A
D - A1173 N	544	136	149	1746	0.312	542	243	0.0	0.5	3.380	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	568	142	544	1558	0.365	567	284	0.5	0.6	4.031	A
B - Access	0	0	1108	829	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	360	90	110	1852	0.195	360	999	0.3	0.3	3.346	A
D - A1173 N	650	162	179	1726	0.377	649	291	0.5	0.7	3.784	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	696	174	666	1476	0.471	694	348	0.6	1.0	5.102	A
B - Access	0	0	1356	682	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	442	110	134	1835	0.241	441	1222	0.3	0.4	3.582	A
D - A1173 N	796	199	219	1699	0.468	795	356	0.7	1.0	4.502	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	696	174	667	1475	0.472	696	348	1.0	1.0	5.125	A
B - Access	0	0	1359	681	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	442	110	134	1835	0.241	442	1224	0.4	0.4	3.582	A
D - A1173 N	796	199	219	1699	0.469	796	357	1.0	1.0	4.515	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	568	142	546	1557	0.365	570	284	1.0	0.6	4.052	A
B - Access	0	0	1112	827	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	360	90	110	1852	0.195	361	1002	0.4	0.3	3.349	A
D - A1173 N	650	162	179	1726	0.377	651	292	1.0	0.7	3.799	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	476	119	457	1617	0.294	477	238	0.6	0.5	3.508	A
B - Access	0	0	930	935	0.000	0	3	0.0	0.0	0.000	A
C - A1173 W	302	75	92	1864	0.162	302	838	0.3	0.3	3.198	A
D - A1173 N	544	136	150	1746	0.312	545	244	0.7	0.5	3.396	A

2025 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	10.35	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.35	B

Traffic Demand

Demand Set 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	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	386	100.000
B - Access		ONE HOUR	✓	25	100.000
C - A1173 W		ONE HOUR	✓	1379	100.000
D - A1173 N		ONE HOUR	✓	302	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	2	259	125
	B - Access	5	0	14	6
	C - A1173 W	630	11	0	738
	D - A1173 N	96	8	198	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	66	50
	B - Access	0	0	100	0
	C - A1173 W	21	67	0	10
	D - A1173 N	26	0	34	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.24	4.30	0.5	A	354	531
B - Access	0.02	4.63	0.0	A	23	34
C - A1173 W	0.83	13.43	5.5	B	1265	1898
D - A1173 N	0.24	4.53	0.4	A	277	416

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	291	73	163	1815	0.160	289	547	0.0	0.3	3.771	A
B - Access	19	5	436	1228	0.015	19	16	0.0	0.0	4.136	A
C - A1173 W	1038	260	102	1857	0.559	1032	353	0.0	1.4	4.989	A
D - A1173 N	227	57	484	1520	0.150	226	651	0.0	0.2	3.621	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	347	87	195	1793	0.194	347	655	0.3	0.4	3.980	A
B - Access	22	6	523	1176	0.019	22	19	0.0	0.0	4.332	A
C - A1173 W	1240	310	122	1843	0.673	1236	423	1.4	2.3	6.788	A
D - A1173 N	271	68	579	1456	0.187	271	779	0.2	0.3	3.956	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	425	106	239	1764	0.241	425	799	0.4	0.5	4.299	A
B - Access	28	7	640	1107	0.025	27	23	0.0	0.0	4.631	A
C - A1173 W	1518	380	150	1824	0.832	1506	518	2.3	5.3	12.590	B
D - A1173 N	333	83	706	1370	0.243	332	950	0.3	0.4	4.514	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	425	106	239	1763	0.241	425	804	0.5	0.5	4.301	A
B - Access	28	7	641	1106	0.025	28	23	0.0	0.0	4.633	A
C - A1173 W	1518	380	150	1824	0.832	1518	519	5.3	5.5	13.427	B
D - A1173 N	333	83	711	1366	0.243	332	956	0.4	0.4	4.532	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	347	87	195	1792	0.194	347	663	0.5	0.4	3.987	A
B - Access	22	6	524	1176	0.019	23	19	0.0	0.0	4.335	A
C - A1173 W	1240	310	122	1843	0.673	1252	424	5.5	2.4	7.149	A
D - A1173 N	271	68	586	1451	0.187	272	788	0.4	0.3	3.979	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	291	73	164	1814	0.160	291	552	0.4	0.3	3.783	A
B - Access	19	5	439	1226	0.015	19	16	0.0	0.0	4.140	A
C - A1173 W	1038	260	103	1857	0.559	1042	355	2.4	1.5	5.110	A
D - A1173 N	227	57	488	1517	0.150	228	656	0.3	0.2	3.637	A

2025 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	5.49	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.49	A

Traffic Demand

Demand Set 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	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	710	100.000
B - Access		ONE HOUR	✓	25	100.000
C - A1173 W		ONE HOUR	✓	543	100.000
D - A1173 N		ONE HOUR	✓	788	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	8	580	122
	B - Access	4	0	14	7
	C - A1173 W	277	25	0	241
	D - A1173 N	117	47	624	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	14	14	26
	B - Access	0	0	71	0
	C - A1173 W	61	0	0	22
	D - A1173 N	42	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.55	6.65	1.4	A	652	977
B - Access	0.04	7.91	0.1	A	23	34
C - A1173 W	0.33	4.03	0.7	A	498	747
D - A1173 N	0.54	5.38	1.3	A	723	1085

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	535	134	522	1573	0.340	532	298	0.0	0.6	3.999	A
B - Access	19	5	994	897	0.021	19	60	0.0	0.0	5.340	A
C - A1173 W	409	102	100	1859	0.220	407	913	0.0	0.4	3.410	A
D - A1173 N	593	148	229	1692	0.351	591	277	0.0	0.6	3.663	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	638	160	625	1504	0.424	637	357	0.6	0.8	4.808	A
B - Access	22	6	1190	781	0.029	22	72	0.0	0.0	6.186	A
C - A1173 W	488	122	119	1845	0.265	488	1093	0.4	0.5	3.650	A
D - A1173 N	708	177	275	1661	0.426	707	332	0.6	0.8	4.234	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	782	195	765	1410	0.554	779	438	0.8	1.4	6.594	A
B - Access	28	7	1456	623	0.044	27	88	0.0	0.1	7.875	A
C - A1173 W	598	149	146	1827	0.327	597	1338	0.5	0.7	4.028	A
D - A1173 N	868	217	337	1620	0.536	866	407	0.8	1.3	5.348	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	782	195	766	1409	0.555	782	438	1.4	1.4	6.652	A
B - Access	28	7	1460	621	0.044	28	88	0.1	0.1	7.905	A
C - A1173 W	598	149	146	1826	0.327	598	1341	0.7	0.7	4.032	A
D - A1173 N	868	217	337	1619	0.536	868	407	1.3	1.3	5.375	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	638	160	627	1502	0.425	641	358	1.4	0.9	4.853	A
B - Access	22	6	1196	777	0.029	23	72	0.1	0.0	6.213	A
C - A1173 W	488	122	120	1845	0.265	489	1098	0.7	0.5	3.654	A
D - A1173 N	708	177	275	1661	0.427	710	333	1.3	0.8	4.258	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	535	134	525	1571	0.340	536	300	0.9	0.6	4.032	A
B - Access	19	5	1000	893	0.021	19	60	0.0	0.0	5.363	A
C - A1173 W	409	102	100	1858	0.220	409	919	0.5	0.4	3.421	A
D - A1173 N	593	148	231	1691	0.351	594	279	0.8	0.6	3.689	A

2025 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	12.21	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.21	B

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	386	100.000
B - Access		ONE HOUR	✓	25	100.000
C - A1173 W		ONE HOUR	✓	1428	100.000
D - A1173 N		ONE HOUR	✓	376	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	2	259	125
	B - Access	5	0	14	6
	C - A1173 W	630	11	0	787
	D - A1173 N	96	8	272	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	66	50
	B - Access	0	0	100	0
	C - A1173 W	21	67	0	12
	D - A1173 N	26	0	42	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.25	4.48	0.5	A	354	531
B - Access	0.03	4.85	0.0	A	23	34
C - A1173 W	0.86	16.29	6.8	C	1310	1966
D - A1173 N	0.30	5.15	0.6	A	345	518

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	291	73	218	1777	0.164	289	547	0.0	0.3	3.866	A
B - Access	19	5	492	1195	0.016	19	16	0.0	0.0	4.251	A
C - A1173 W	1075	269	102	1857	0.579	1069	409	0.0	1.6	5.260	A
D - A1173 N	283	71	483	1520	0.186	282	687	0.0	0.3	3.959	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	347	87	261	1748	0.198	347	655	0.3	0.4	4.106	A
B - Access	22	6	589	1137	0.020	22	19	0.0	0.0	4.485	A
C - A1173 W	1284	321	122	1843	0.697	1280	489	1.6	2.6	7.363	A
D - A1173 N	338	85	579	1456	0.232	338	823	0.3	0.4	4.389	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	425	106	320	1709	0.249	424	798	0.4	0.5	4.480	A
B - Access	28	7	721	1059	0.026	27	23	0.0	0.0	4.848	A
C - A1173 W	1572	393	150	1824	0.862	1557	599	2.6	6.5	14.827	B
D - A1173 N	414	103	704	1371	0.302	413	1002	0.4	0.6	5.123	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	425	106	320	1709	0.249	425	804	0.5	0.5	4.485	A
B - Access	28	7	722	1058	0.026	28	23	0.0	0.0	4.851	A
C - A1173 W	1572	393	150	1824	0.862	1571	600	6.5	6.8	16.291	C
D - A1173 N	414	103	711	1367	0.303	414	1010	0.6	0.6	5.152	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	347	87	262	1748	0.199	348	665	0.5	0.4	4.115	A
B - Access	22	6	591	1136	0.020	23	19	0.0	0.0	4.491	A
C - A1173 W	1284	321	122	1843	0.697	1300	491	6.8	2.7	7.920	A
D - A1173 N	338	85	588	1450	0.233	339	834	0.6	0.4	4.423	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	291	73	219	1776	0.164	291	552	0.4	0.3	3.877	A
B - Access	19	5	495	1193	0.016	19	16	0.0	0.0	4.257	A
C - A1173 W	1075	269	103	1857	0.579	1080	411	2.7	1.6	5.410	A
D - A1173 N	283	71	488	1517	0.187	283	694	0.4	0.3	3.980	A

2025 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	6.80	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.80	A

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	710	100.000
B - Access		ONE HOUR	✓	25	100.000
C - A1173 W		ONE HOUR	✓	762	100.000
D - A1173 N		ONE HOUR	✓	920	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	8	580	122
	B - Access	4	0	14	7
	C - A1173 W	277	25	0	460
	D - A1173 N	117	47	756	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	14	14	26
	B - Access	0	0	71	0
	C - A1173 W	61	0	0	46
	D - A1173 N	42	0	17	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.60	7.87	1.7	A	652	977
B - Access	0.05	9.25	0.1	A	23	34
C - A1173 W	0.46	5.42	1.3	A	699	1049
D - A1173 N	0.63	7.04	2.0	A	844	1266

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	535	134	620	1507	0.355	532	298	0.0	0.6	4.268	A
B - Access	19	5	1092	839	0.022	19	60	0.0	0.0	5.720	A
C - A1173 W	574	143	100	1859	0.309	571	1012	0.0	0.7	4.151	A
D - A1173 N	693	173	229	1692	0.409	689	441	0.0	0.8	4.245	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	638	160	743	1424	0.448	637	357	0.6	0.9	5.292	A
B - Access	22	6	1308	711	0.032	22	72	0.0	0.0	6.815	A
C - A1173 W	685	171	119	1845	0.371	684	1211	0.7	0.9	4.611	A
D - A1173 N	827	207	275	1661	0.498	826	529	0.8	1.2	5.102	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	782	195	909	1313	0.595	779	437	0.9	1.7	7.766	A
B - Access	28	7	1600	538	0.051	27	88	0.0	0.1	9.187	A
C - A1173 W	839	210	146	1827	0.459	837	1481	0.9	1.3	5.408	A
D - A1173 N	1013	253	336	1620	0.625	1010	647	1.2	1.9	6.965	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	782	195	912	1311	0.596	782	438	1.7	1.7	7.874	A
B - Access	28	7	1605	535	0.051	28	88	0.1	0.1	9.248	A
C - A1173 W	839	210	146	1826	0.459	839	1486	1.3	1.3	5.424	A
D - A1173 N	1013	253	337	1619	0.626	1013	648	1.9	2.0	7.038	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	638	160	747	1422	0.449	641	359	1.7	1.0	5.366	A
B - Access	22	6	1316	706	0.032	23	72	0.1	0.0	6.866	A
C - A1173 W	685	171	120	1845	0.371	687	1219	1.3	0.9	4.633	A
D - A1173 N	827	207	276	1661	0.498	830	531	2.0	1.2	5.159	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	535	134	625	1504	0.355	536	300	1.0	0.6	4.315	A
B - Access	19	5	1100	834	0.023	19	60	0.0	0.0	5.753	A
C - A1173 W	574	143	100	1858	0.309	575	1019	0.9	0.7	4.175	A
D - A1173 N	693	173	231	1691	0.410	694	444	1.2	0.8	4.288	A

2032 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	6.28	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.28	A

Traffic Demand

Demand Set 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	2032 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	272	100.000
B - Access		ONE HOUR	✓	0	100.000
C - A1173 W		ONE HOUR	✓	1174	100.000
D - A1173 N		ONE HOUR	✓	282	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	142	130
	B - Access	0	0	0	0
	C - A1173 W	495	2	0	677
	D - A1173 N	100	0	182	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	49	50
	B - Access	0	0	0	0
	C - A1173 W	11	0	0	10
	D - A1173 N	26	0	39	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.17	3.61	0.3	A	250	374
B - Access	0.00	0.00	0.0	A	0	0
C - A1173 W	0.71	7.41	2.6	A	1077	1616
D - A1173 N	0.21	4.14	0.4	A	259	388

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	205	51	138	1831	0.112	204	446	0.0	0.2	3.305	A
B - Access	0	0	341	1284	0.000	0	1	0.0	0.0	0.000	A
C - A1173 W	884	221	98	1860	0.475	880	243	0.0	1.0	4.038	A
D - A1173 N	212	53	372	1595	0.133	211	605	0.0	0.2	3.486	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	245	61	165	1813	0.135	244	534	0.2	0.2	3.430	A
B - Access	0	0	408	1245	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1055	264	117	1847	0.571	1054	291	1.0	1.5	4.997	A
D - A1173 N	254	63	446	1546	0.164	253	724	0.2	0.3	3.735	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	299	75	202	1788	0.168	299	653	0.2	0.3	3.614	A
B - Access	0	0	499	1190	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1293	323	143	1829	0.707	1288	356	1.5	2.6	7.288	A
D - A1173 N	310	78	545	1478	0.210	310	886	0.3	0.4	4.131	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	299	75	203	1788	0.168	299	655	0.3	0.3	3.614	A
B - Access	0	0	500	1190	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1293	323	143	1829	0.707	1292	357	2.6	2.6	7.408	A
D - A1173 N	310	78	547	1477	0.210	310	888	0.4	0.4	4.137	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	245	61	166	1813	0.135	245	537	0.3	0.2	3.432	A
B - Access	0	0	409	1244	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1055	264	117	1847	0.572	1060	292	2.6	1.5	5.080	A
D - A1173 N	254	63	449	1544	0.164	254	728	0.4	0.3	3.742	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	205	51	139	1831	0.112	205	449	0.2	0.2	3.309	A
B - Access	0	0	342	1283	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	884	221	98	1860	0.475	886	244	1.5	1.0	4.089	A
D - A1173 N	212	53	375	1594	0.133	213	609	0.3	0.2	3.495	A

2032 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	4.72	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.72	A

Traffic Demand

Demand Set 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	2032 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	656	100.000
B - Access		ONE HOUR	✓	2	100.000
C - A1173 W		ONE HOUR	✓	416	100.000
D - A1173 N		ONE HOUR	✓	751	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	4	525	127
	B - Access	0	0	2	0
	C - A1173 W	206	0	0	210
	D - A1173 N	122	0	629	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	8	26
	B - Access	0	0	0	0
	C - A1173 W	56	0	0	25
	D - A1173 N	42	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.50	5.43	1.1	A	602	903
B - Access	0.00	0.00	0.0	A	0	0
C - A1173 W	0.25	3.63	0.5	A	382	573
D - A1173 N	0.49	4.70	1.1	A	689	1034

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	494	123	472	1607	0.307	492	246	0.0	0.5	3.578	A
B - Access	0	0	961	917	0.000	0	3	0.0	0.0	0.000	A
C - A1173 W	313	78	95	1862	0.168	312	865	0.0	0.3	3.219	A
D - A1173 N	565	141	155	1743	0.324	563	253	0.0	0.5	3.452	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	590	147	565	1544	0.382	589	295	0.5	0.7	4.180	A
B - Access	0	0	1150	804	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	374	93	114	1849	0.202	374	1036	0.3	0.3	3.383	A
D - A1173 N	675	169	185	1722	0.392	674	303	0.5	0.7	3.890	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	722	181	691	1459	0.495	721	361	0.7	1.1	5.399	A
B - Access	0	0	1408	652	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	458	115	140	1831	0.250	458	1268	0.3	0.5	3.634	A
D - A1173 N	827	207	227	1694	0.488	825	371	0.7	1.1	4.687	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	722	181	693	1458	0.495	722	361	1.1	1.1	5.428	A
B - Access	0	0	1410	650	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	458	115	140	1831	0.250	458	1271	0.5	0.5	3.634	A
D - A1173 N	827	207	227	1694	0.488	827	371	1.1	1.1	4.703	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	590	147	567	1543	0.382	591	295	1.1	0.7	4.207	A
B - Access	0	0	1154	802	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	374	93	114	1848	0.202	374	1040	0.5	0.4	3.388	A
D - A1173 N	675	169	185	1722	0.392	676	303	1.1	0.7	3.906	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	494	123	474	1605	0.308	495	247	0.7	0.5	3.603	A
B - Access	0	0	966	914	0.000	0	3	0.0	0.0	0.000	A
C - A1173 W	313	78	96	1861	0.168	313	870	0.4	0.3	3.224	A
D - A1173 N	565	141	155	1742	0.325	566	254	0.7	0.5	3.471	A

2032 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	12.16	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.16	B

Traffic Demand

Demand Set 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	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	396	100.000
B - Access		ONE HOUR	✓	25	100.000
C - A1173 W		ONE HOUR	✓	1424	100.000
D - A1173 N		ONE HOUR	✓	313	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	2	264	130
	B - Access	5	0	14	6
	C - A1173 W	649	11	0	764
	D - A1173 N	100	8	205	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	66	50
	B - Access	0	0	100	0
	C - A1173 W	21	67	0	10
	D - A1173 N	26	0	34	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.25	4.35	0.5	A	363	545
B - Access	0.03	4.68	0.0	A	23	34
C - A1173 W	0.86	16.12	6.7	C	1307	1960
D - A1173 N	0.25	4.65	0.4	A	287	431

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	298	75	168	1811	0.165	297	564	0.0	0.3	3.797	A
B - Access	19	5	449	1220	0.015	19	16	0.0	0.0	4.162	A
C - A1173 W	1072	268	106	1854	0.578	1066	362	0.0	1.6	5.213	A
D - A1173 N	236	59	498	1511	0.156	235	674	0.0	0.2	3.673	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	356	89	201	1789	0.199	356	676	0.3	0.4	4.015	A
B - Access	22	6	538	1167	0.019	22	19	0.0	0.0	4.366	A
C - A1173 W	1280	320	127	1840	0.696	1276	434	1.6	2.6	7.294	A
D - A1173 N	281	70	596	1444	0.195	281	807	0.2	0.3	4.029	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	436	109	246	1758	0.248	435	823	0.4	0.5	4.347	A
B - Access	28	7	659	1096	0.025	27	23	0.0	0.0	4.679	A
C - A1173 W	1568	392	155	1820	0.861	1552	531	2.6	6.4	14.684	B
D - A1173 N	345	86	725	1357	0.254	344	983	0.3	0.4	4.627	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	436	109	247	1758	0.248	436	830	0.5	0.5	4.352	A
B - Access	28	7	659	1095	0.025	28	23	0.0	0.0	4.682	A
C - A1173 W	1568	392	155	1820	0.861	1567	532	6.4	6.7	16.116	C
D - A1173 N	345	86	732	1352	0.255	345	990	0.4	0.4	4.651	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	356	89	202	1788	0.199	356	685	0.5	0.4	4.020	A
B - Access	22	6	539	1167	0.019	23	19	0.0	0.0	4.370	A
C - A1173 W	1280	320	127	1840	0.696	1296	435	6.7	2.7	7.838	A
D - A1173 N	281	70	605	1438	0.196	282	818	0.4	0.3	4.058	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	298	75	169	1810	0.165	298	570	0.4	0.3	3.809	A
B - Access	19	5	451	1219	0.015	19	16	0.0	0.0	4.168	A
C - A1173 W	1072	268	106	1854	0.578	1076	364	2.7	1.6	5.358	A
D - A1173 N	236	59	503	1507	0.156	236	680	0.3	0.2	3.687	A

2032 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	5.79	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.79	A

Traffic Demand

Demand Set 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	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	735	100.000
B - Access		ONE HOUR	✓	25	100.000
C - A1173 W		ONE HOUR	✓	558	100.000
D - A1173 N		ONE HOUR	✓	816	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	9	599	127
	B - Access	4	0	14	7
	C - A1173 W	284	25	0	249
	D - A1173 N	122	47	647	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	14	14	26
	B - Access	0	0	71	0
	C - A1173 W	61	0	0	22
	D - A1173 N	42	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.58	7.16	1.6	A	674	1012
B - Access	0.05	8.34	0.1	A	23	34
C - A1173 W	0.34	4.10	0.7	A	512	768
D - A1173 N	0.56	5.65	1.4	A	749	1123

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	553	138	539	1562	0.354	551	307	0.0	0.6	4.118	A
B - Access	19	5	1029	876	0.021	19	61	0.0	0.0	5.470	A
C - A1173 W	420	105	103	1856	0.226	418	944	0.0	0.4	3.443	A
D - A1173 N	614	154	235	1688	0.364	612	287	0.0	0.6	3.744	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	661	165	646	1490	0.443	660	368	0.6	0.9	5.017	A
B - Access	22	6	1232	756	0.030	22	73	0.0	0.0	6.396	A
C - A1173 W	502	125	124	1842	0.272	501	1131	0.4	0.5	3.695	A
D - A1173 N	734	183	281	1657	0.443	733	344	0.6	0.9	4.369	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	809	202	790	1393	0.581	807	451	0.9	1.6	7.082	A
B - Access	28	7	1507	593	0.046	27	89	0.0	0.1	8.298	A
C - A1173 W	614	154	151	1823	0.337	614	1383	0.5	0.7	4.094	A
D - A1173 N	898	225	344	1614	0.557	896	421	0.9	1.4	5.615	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	809	202	792	1392	0.581	809	451	1.6	1.6	7.158	A
B - Access	28	7	1512	590	0.047	28	89	0.1	0.1	8.336	A
C - A1173 W	614	154	152	1822	0.337	614	1387	0.7	0.7	4.100	A
D - A1173 N	898	225	345	1614	0.557	898	422	1.4	1.4	5.649	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	661	165	648	1488	0.444	663	369	1.6	0.9	5.075	A
B - Access	22	6	1238	752	0.030	23	73	0.1	0.0	6.432	A
C - A1173 W	502	125	125	1841	0.272	502	1137	0.7	0.5	3.703	A
D - A1173 N	734	183	282	1657	0.443	736	345	1.4	0.9	4.400	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	553	138	542	1559	0.355	555	309	0.9	0.6	4.156	A
B - Access	19	5	1036	872	0.022	19	61	0.0	0.0	5.497	A
C - A1173 W	420	105	104	1856	0.226	421	950	0.5	0.4	3.452	A
D - A1173 N	614	154	236	1688	0.364	615	289	0.9	0.6	3.773	A

2032 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	14.81	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	14.81	B

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	396	100.000
B - Access		ONE HOUR	✓	25	100.000
C - A1173 W		ONE HOUR	✓	1473	100.000
D - A1173 N		ONE HOUR	✓	387	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	2	264	130
	B - Access	5	0	14	6
	C - A1173 W	649	11	0	813
	D - A1173 N	100	8	279	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	66	50
	B - Access	0	0	100	0
	C - A1173 W	21	67	0	12
	D - A1173 N	26	0	42	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.26	4.54	0.5	A	363	545
B - Access	0.03	4.90	0.0	A	23	34
C - A1173 W	0.89	20.23	8.6	C	1352	2027
D - A1173 N	0.31	5.30	0.6	A	355	533

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	298	75	223	1774	0.168	297	564	0.0	0.3	3.893	A
B - Access	19	5	504	1187	0.016	19	16	0.0	0.0	4.278	A
C - A1173 W	1109	277	106	1855	0.598	1102	417	0.0	1.7	5.506	A
D - A1173 N	291	73	498	1511	0.193	290	710	0.0	0.3	4.017	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	356	89	268	1744	0.204	356	676	0.3	0.4	4.144	A
B - Access	22	6	604	1128	0.020	22	19	0.0	0.0	4.522	A
C - A1173 W	1324	331	127	1840	0.720	1319	500	1.7	2.9	7.955	A
D - A1173 N	348	87	596	1444	0.241	347	850	0.3	0.4	4.471	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	436	109	327	1704	0.256	435	821	0.4	0.5	4.535	A
B - Access	28	7	740	1048	0.026	27	23	0.0	0.0	4.900	A
C - A1173 W	1622	405	155	1820	0.891	1601	612	2.9	8.0	17.612	C
D - A1173 N	426	107	723	1358	0.314	425	1033	0.4	0.6	5.256	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	436	109	328	1703	0.256	436	829	0.5	0.5	4.540	A
B - Access	28	7	741	1047	0.026	28	23	0.0	0.0	4.903	A
C - A1173 W	1622	405	155	1820	0.891	1619	613	8.0	8.6	20.233	C
D - A1173 N	426	107	731	1353	0.315	426	1044	0.6	0.6	5.295	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	356	89	269	1743	0.204	357	688	0.5	0.4	4.151	A
B - Access	22	6	606	1127	0.020	23	19	0.0	0.0	4.528	A
C - A1173 W	1324	331	127	1840	0.720	1346	502	8.6	3.1	8.831	A
D - A1173 N	348	87	608	1436	0.242	349	866	0.6	0.4	4.516	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	298	75	225	1773	0.168	298	570	0.4	0.3	3.904	A
B - Access	19	5	507	1186	0.016	19	16	0.0	0.0	4.287	A
C - A1173 W	1109	277	106	1854	0.598	1114	420	3.1	1.8	5.687	A
D - A1173 N	291	73	503	1507	0.193	292	717	0.4	0.3	4.041	A

2032 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	7.23	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.23	A

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	735	100.000
B - Access		ONE HOUR	✓	25	100.000
C - A1173 W		ONE HOUR	✓	777	100.000
D - A1173 N		ONE HOUR	✓	948	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	9	599	127
	B - Access	4	0	14	7
	C - A1173 W	284	25	0	468
	D - A1173 N	122	47	779	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	14	14	26
	B - Access	0	0	71	0
	C - A1173 W	61	0	0	46
	D - A1173 N	42	0	17	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.63	8.60	1.9	A	674	1012
B - Access	0.05	9.84	0.1	A	23	34
C - A1173 W	0.47	5.54	1.3	A	713	1069
D - A1173 N	0.65	7.49	2.1	A	870	1305

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	553	138	638	1495	0.370	551	307	0.0	0.7	4.404	A
B - Access	19	5	1128	818	0.023	19	61	0.0	0.0	5.869	A
C - A1173 W	585	146	103	1856	0.315	582	1043	0.0	0.7	4.199	A
D - A1173 N	714	178	235	1689	0.423	710	451	0.0	0.9	4.353	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	661	165	764	1411	0.468	659	368	0.7	1.0	5.544	A
B - Access	22	6	1350	686	0.033	22	73	0.0	0.0	7.071	A
C - A1173 W	699	175	124	1842	0.379	698	1249	0.7	0.9	4.676	A
D - A1173 N	852	213	281	1657	0.514	851	540	0.9	1.2	5.289	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	809	202	934	1296	0.624	806	450	1.0	1.9	8.447	A
B - Access	28	7	1651	508	0.054	27	89	0.0	0.1	9.764	A
C - A1173 W	855	214	151	1823	0.469	854	1527	0.9	1.3	5.521	A
D - A1173 N	1044	261	344	1615	0.646	1040	661	1.2	2.1	7.393	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	809	202	937	1294	0.625	809	451	1.9	1.9	8.597	A
B - Access	28	7	1657	504	0.055	28	89	0.1	0.1	9.842	A
C - A1173 W	855	214	152	1822	0.469	855	1532	1.3	1.3	5.541	A
D - A1173 N	1044	261	345	1614	0.647	1044	663	2.1	2.1	7.487	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	661	165	768	1408	0.469	664	370	1.9	1.0	5.638	A
B - Access	22	6	1359	680	0.033	23	73	0.1	0.0	7.130	A
C - A1173 W	699	175	125	1841	0.379	700	1257	1.3	0.9	4.701	A
D - A1173 N	852	213	282	1656	0.514	856	543	2.1	1.3	5.358	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	553	138	642	1492	0.371	555	309	1.0	0.7	4.456	A
B - Access	19	5	1136	813	0.023	19	61	0.0	0.0	5.906	A
C - A1173 W	585	146	104	1856	0.315	586	1050	0.9	0.7	4.223	A
D - A1173 N	714	178	236	1688	0.423	715	454	1.3	0.9	4.401	A

Appendix TN2 G

A1173/ Kiln Lane Average Flows Junction Assessment Results

<h1>Junctions 10</h1>
<h2>ARCADY 10 - Roundabout Module</h2>
Version: 10.0.4.1693 © Copyright TRL Software Limited, 2021
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Filename: A1173-Kiln Lane.j10
Path: P:\23000's\23325\Junction Assessment\4 Average Flow Assessment
Report generation date: 19/10/2023 12:31:15

- »2021 Base, AM
- »2021 Base, PM
- »2025 Base, AM
- »2025 Base, PM
- »2025 Base + Committed, AM
- »2025 Base + Committed, PM
- »2025 Base + Committed + Development, AM
- »2025 Base + Committed + Development, PM
- »2032 Base, AM
- »2032 Base, PM
- »2032 Base + Committed, AM
- »2032 Base + Committed, PM
- »2032 Base + Committed + Development, AM
- »2032 Base + Committed + Development, PM

Summary of junction performance

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Base						
A - Kiln Lane	0.3	3.55	0.16	0.9	4.94	0.46
B - Access	0.0	0.00	0.00	0.0	0.00	0.00
C - A1173 W	2.1	6.36	0.66	0.4	3.55	0.23
D - A1173 N	0.3	3.98	0.19	0.9	4.40	0.46
2025 Base						
A - Kiln Lane	0.3	3.58	0.16	1.0	5.12	0.47
B - Access	0.0	0.00	0.00	0.0	0.00	0.00
C - A1173 W	2.3	6.73	0.68	0.4	3.58	0.24
D - A1173 N	0.3	4.04	0.20	1.0	4.51	0.47
2025 Base + Committed						
A - Kiln Lane	0.5	4.30	0.24	1.4	6.65	0.55
B - Access	0.0	4.63	0.02	0.1	7.91	0.04
C - A1173 W	5.5	13.43	0.83	0.7	4.03	0.33
D - A1173 N	0.4	4.53	0.24	1.3	5.38	0.54
2025 Base + Committed + Development						
A - Kiln Lane	0.5	4.51	0.25	1.6	7.67	0.59
B - Access	0.0	4.88	0.03	0.1	9.03	0.05
C - A1173 W	11.3	25.87	0.92	1.2	5.18	0.44
D - A1173 N	0.6	5.23	0.31	1.8	6.76	0.61
2032 Base						
A - Kiln Lane	0.3	3.61	0.17	1.1	5.43	0.50
B - Access	0.0	0.00	0.00	0.0	0.00	0.00
C - A1173 W	2.6	7.41	0.71	0.5	3.63	0.25
D - A1173 N	0.4	4.14	0.21	1.1	4.70	0.49
2032 Base + Committed						
A - Kiln Lane	0.5	4.35	0.25	1.6	7.16	0.58
B - Access	0.0	4.68	0.03	0.1	8.34	0.05
C - A1173 W	6.7	16.12	0.86	0.7	4.10	0.34
D - A1173 N	0.4	4.65	0.25	1.4	5.65	0.56
2032 Base + Committed + Development						
A - Kiln Lane	0.6	4.56	0.26	1.9	8.37	0.62
B - Access	0.0	4.93	0.03	0.1	9.61	0.05
C - A1173 W	15.6	34.80	0.95	1.2	5.28	0.45
D - A1173 N	0.6	5.37	0.32	2.0	7.19	0.63

Values shown are the highest values encountered over all time segments. Delay is the maximum value of Av. delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	18/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\Arcady
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

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	2021 Base	AM	ONE HOUR	06:45	08:15	15	✓
D2	2021 Base	PM	ONE HOUR	15:45	17:15	15	✓
D3	2025 Base	AM	ONE HOUR	06:45	08:15	15	✓
D4	2025 Base	PM	ONE HOUR	15:45	17:15	15	✓
D5	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D6	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D7	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D8	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓
D9	2032 Base	AM	ONE HOUR	06:45	08:15	15	✓
D10	2032 Base	PM	ONE HOUR	15:45	17:15	15	✓
D11	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D12	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D13	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D14	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2021 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	5.53	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.53	A

Arms

Arms

Arm	Name	Description	No give-way line
A	Kiln Lane		
B	Access		
C	A1173 W		
D	A1173 N		

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
A - Kiln Lane	4.56	7.01	20.3	16.5	45.1	26.0		
B - Access	4.03	5.31	5.9	23.3	45.1	25.0		
C - A1173 W	3.64	8.44	14.1	38.1	45.1	16.0		
D - A1173 N	3.68	8.15	11.9	37.7	45.1	17.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Kiln Lane	0.672	1924
B - Access	0.593	1486
C - A1173 W	0.693	1928
D - A1173 N	0.676	1847

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	2021 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	255	100.000
B - Access		ONE HOUR	✓	0	100.000
C - A1173 W		ONE HOUR	✓	1099	100.000
D - A1173 N		ONE HOUR	✓	263	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To				
	A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N	
A - Kiln Lane	0	0	133	122	
B - Access	0	0	0	0	
C - A1173 W	463	2	0	634	
D - A1173 N	93	0	170	0	

Vehicle Mix

HV %s

From	To				
	A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N	
A - Kiln Lane	0	0	49	50	
B - Access	0	0	0	0	
C - A1173 W	11	0	0	10	
D - A1173 N	26	0	39	0	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.16	3.55	0.3	A	234	351
B - Access	0.00	0.00	0.0	A	0	0
C - A1173 W	0.66	6.36	2.1	A	1008	1513
D - A1173 N	0.19	3.98	0.3	A	241	362

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	192	48	129	1837	0.105	191	417	0.0	0.2	3.267	A
B - Access	0	0	319	1297	0.000	0	1	0.0	0.0	0.000	A
C - A1173 W	827	207	92	1864	0.444	824	227	0.0	0.9	3.807	A
D - A1173 N	198	50	349	1611	0.123	197	567	0.0	0.2	3.412	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	229	57	154	1820	0.126	229	499	0.2	0.2	3.381	A
B - Access	0	0	382	1260	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	988	247	110	1852	0.534	986	272	0.9	1.2	4.586	A
D - A1173 N	236	59	417	1565	0.151	236	679	0.2	0.2	3.633	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	281	70	189	1797	0.156	281	611	0.2	0.3	3.548	A
B - Access	0	0	467	1209	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1210	303	134	1835	0.660	1207	333	1.2	2.1	6.294	A
D - A1173 N	290	72	511	1502	0.193	289	830	0.2	0.3	3.980	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	281	70	189	1797	0.156	281	612	0.3	0.3	3.549	A
B - Access	0	0	468	1209	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1210	303	134	1835	0.660	1210	334	2.1	2.1	6.359	A
D - A1173 N	290	72	512	1501	0.193	290	832	0.3	0.3	3.984	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	229	57	155	1820	0.126	229	501	0.3	0.2	3.386	A
B - Access	0	0	383	1260	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	988	247	110	1852	0.534	991	273	2.1	1.3	4.637	A
D - A1173 N	236	59	419	1564	0.151	237	682	0.3	0.2	3.641	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	192	48	130	1837	0.105	192	419	0.2	0.2	3.271	A
B - Access	0	0	320	1296	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	827	207	92	1864	0.444	829	228	1.3	0.9	3.846	A
D - A1173 N	198	50	351	1610	0.123	198	570	0.2	0.2	3.419	A

2021 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	4.40	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.40	A

Traffic Demand

Demand Set 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	2021 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	616	100.000
B - Access		ONE HOUR	✓	2	100.000
C - A1173 W		ONE HOUR	✓	391	100.000
D - A1173 N		ONE HOUR	✓	705	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	4	493	119
	B - Access	0	0	2	0
	C - A1173 W	194	0	0	197
	D - A1173 N	114	0	591	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	8	26
	B - Access	0	0	0	0
	C - A1173 W	56	0	0	25
	D - A1173 N	42	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.46	4.94	0.9	A	565	848
B - Access	0.00	0.00	0.0	A	0	0
C - A1173 W	0.23	3.55	0.4	A	359	538
D - A1173 N	0.46	4.40	0.9	A	647	970

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	464	116	443	1626	0.285	462	231	0.0	0.4	3.429	A
B - Access	0	0	902	951	0.000	0	3	0.0	0.0	0.000	A
C - A1173 W	294	74	89	1866	0.158	293	813	0.0	0.3	3.173	A
D - A1173 N	531	133	146	1749	0.304	529	237	0.0	0.5	3.336	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	554	138	531	1567	0.353	553	277	0.4	0.6	3.938	A
B - Access	0	0	1080	846	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	352	88	107	1854	0.190	351	973	0.3	0.3	3.322	A
D - A1173 N	634	158	174	1729	0.366	633	284	0.5	0.7	3.717	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	678	170	650	1487	0.456	677	339	0.6	0.9	4.923	A
B - Access	0	0	1322	702	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	430	108	131	1837	0.234	430	1192	0.3	0.4	3.548	A
D - A1173 N	776	194	213	1703	0.456	775	347	0.7	0.9	4.389	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	678	170	651	1487	0.456	678	339	0.9	0.9	4.943	A
B - Access	0	0	1324	701	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	430	108	131	1837	0.234	430	1193	0.4	0.4	3.548	A
D - A1173 N	776	194	214	1703	0.456	776	348	0.9	0.9	4.400	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	554	138	532	1566	0.354	555	277	0.9	0.6	3.956	A
B - Access	0	0	1084	844	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	352	88	107	1853	0.190	352	976	0.4	0.3	3.327	A
D - A1173 N	634	158	175	1729	0.367	635	285	0.9	0.7	3.729	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	464	116	445	1624	0.285	464	232	0.6	0.4	3.448	A
B - Access	0	0	907	949	0.000	0	3	0.0	0.0	0.000	A
C - A1173 W	294	74	90	1866	0.158	295	817	0.3	0.3	3.177	A
D - A1173 N	531	133	146	1748	0.304	531	238	0.7	0.5	3.351	A

2025 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	5.79	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.79	A

Traffic Demand

Demand Set 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	2025 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	262	100.000
B - Access		ONE HOUR	✓	0	100.000
C - A1173 W		ONE HOUR	✓	1128	100.000
D - A1173 N		ONE HOUR	✓	271	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	137	125
	B - Access	0	0	0	0
	C - A1173 W	475	2	0	651
	D - A1173 N	96	0	175	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	49	50
	B - Access	0	0	0	0
	C - A1173 W	11	0	0	10
	D - A1173 N	26	0	39	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.16	3.58	0.3	A	240	361
B - Access	0.00	0.00	0.0	A	0	0
C - A1173 W	0.68	6.73	2.3	A	1035	1553
D - A1173 N	0.20	4.04	0.3	A	249	373

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	197	49	133	1835	0.108	197	428	0.0	0.2	3.283	A
B - Access	0	0	328	1292	0.000	0	1	0.0	0.0	0.000	A
C - A1173 W	849	212	94	1863	0.456	846	234	0.0	0.9	3.893	A
D - A1173 N	204	51	358	1605	0.127	203	582	0.0	0.2	3.441	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	236	59	159	1817	0.130	235	513	0.2	0.2	3.401	A
B - Access	0	0	393	1254	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1014	254	112	1850	0.548	1012	280	0.9	1.3	4.735	A
D - A1173 N	244	61	428	1558	0.156	243	697	0.2	0.2	3.672	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	288	72	195	1793	0.161	288	627	0.2	0.3	3.575	A
B - Access	0	0	481	1201	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1242	310	138	1832	0.678	1238	343	1.3	2.3	6.645	A
D - A1173 N	298	75	524	1493	0.200	298	852	0.2	0.3	4.038	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	288	72	195	1793	0.161	288	629	0.3	0.3	3.575	A
B - Access	0	0	481	1201	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1242	310	138	1832	0.678	1242	344	2.3	2.3	6.728	A
D - A1173 N	298	75	525	1492	0.200	298	854	0.3	0.3	4.043	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	236	59	159	1817	0.130	236	515	0.3	0.2	3.403	A
B - Access	0	0	393	1253	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1014	254	112	1850	0.548	1018	281	2.3	1.4	4.798	A
D - A1173 N	244	61	430	1556	0.157	244	700	0.3	0.3	3.681	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	197	49	133	1834	0.108	197	431	0.2	0.2	3.287	A
B - Access	0	0	329	1291	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	849	212	94	1862	0.456	851	235	1.4	0.9	3.936	A
D - A1173 N	204	51	360	1604	0.127	204	585	0.3	0.2	3.451	A

2025 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	4.52	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.52	A

Traffic Demand

Demand Set 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	2025 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	632	100.000
B - Access		ONE HOUR	✓	2	100.000
C - A1173 W		ONE HOUR	✓	401	100.000
D - A1173 N		ONE HOUR	✓	723	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	4	506	122
	B - Access	0	0	2	0
	C - A1173 W	199	0	0	202
	D - A1173 N	117	0	606	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	8	26
	B - Access	0	0	0	0
	C - A1173 W	56	0	0	25
	D - A1173 N	42	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.47	5.12	1.0	A	580	870
B - Access	0.00	0.00	0.0	A	0	0
C - A1173 W	0.24	3.58	0.4	A	368	552
D - A1173 N	0.47	4.51	1.0	A	663	995

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	476	119	455	1618	0.294	474	237	0.0	0.5	3.485	A
B - Access	0	0	925	938	0.000	0	3	0.0	0.0	0.000	A
C - A1173 W	302	75	91	1864	0.162	301	834	0.0	0.3	3.191	A
D - A1173 N	544	136	149	1746	0.312	542	243	0.0	0.5	3.380	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	568	142	544	1558	0.365	567	284	0.5	0.6	4.031	A
B - Access	0	0	1108	829	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	360	90	110	1852	0.195	360	999	0.3	0.3	3.346	A
D - A1173 N	650	162	179	1726	0.377	649	291	0.5	0.7	3.784	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	696	174	666	1476	0.471	694	348	0.6	1.0	5.102	A
B - Access	0	0	1356	682	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	442	110	134	1835	0.241	441	1222	0.3	0.4	3.582	A
D - A1173 N	796	199	219	1699	0.468	795	356	0.7	1.0	4.502	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	696	174	667	1475	0.472	696	348	1.0	1.0	5.125	A
B - Access	0	0	1359	681	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	442	110	134	1835	0.241	442	1224	0.4	0.4	3.582	A
D - A1173 N	796	199	219	1699	0.469	796	357	1.0	1.0	4.515	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	568	142	546	1557	0.365	570	284	1.0	0.6	4.052	A
B - Access	0	0	1112	827	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	360	90	110	1852	0.195	361	1002	0.4	0.3	3.349	A
D - A1173 N	650	162	179	1726	0.377	651	292	1.0	0.7	3.799	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	476	119	457	1617	0.294	477	238	0.6	0.5	3.508	A
B - Access	0	0	930	935	0.000	0	3	0.0	0.0	0.000	A
C - A1173 W	302	75	92	1864	0.162	302	838	0.3	0.3	3.198	A
D - A1173 N	544	136	150	1746	0.312	545	244	0.7	0.5	3.396	A

2025 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	10.35	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.35	B

Traffic Demand

Demand Set 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	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	386	100.000
B - Access		ONE HOUR	✓	25	100.000
C - A1173 W		ONE HOUR	✓	1379	100.000
D - A1173 N		ONE HOUR	✓	302	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	2	259	125
	B - Access	5	0	14	6
	C - A1173 W	630	11	0	738
	D - A1173 N	96	8	198	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	66	50
	B - Access	0	0	100	0
	C - A1173 W	21	67	0	10
	D - A1173 N	26	0	34	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.24	4.30	0.5	A	354	531
B - Access	0.02	4.63	0.0	A	23	34
C - A1173 W	0.83	13.43	5.5	B	1265	1898
D - A1173 N	0.24	4.53	0.4	A	277	416

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	291	73	163	1815	0.160	289	547	0.0	0.3	3.771	A
B - Access	19	5	436	1228	0.015	19	16	0.0	0.0	4.136	A
C - A1173 W	1038	260	102	1857	0.559	1032	353	0.0	1.4	4.989	A
D - A1173 N	227	57	484	1520	0.150	226	651	0.0	0.2	3.621	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	347	87	195	1793	0.194	347	655	0.3	0.4	3.980	A
B - Access	22	6	523	1176	0.019	22	19	0.0	0.0	4.332	A
C - A1173 W	1240	310	122	1843	0.673	1236	423	1.4	2.3	6.788	A
D - A1173 N	271	68	579	1456	0.187	271	779	0.2	0.3	3.956	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	425	106	239	1764	0.241	425	799	0.4	0.5	4.299	A
B - Access	28	7	640	1107	0.025	27	23	0.0	0.0	4.631	A
C - A1173 W	1518	380	150	1824	0.832	1506	518	2.3	5.3	12.590	B
D - A1173 N	333	83	706	1370	0.243	332	950	0.3	0.4	4.514	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	425	106	239	1763	0.241	425	804	0.5	0.5	4.301	A
B - Access	28	7	641	1106	0.025	28	23	0.0	0.0	4.633	A
C - A1173 W	1518	380	150	1824	0.832	1518	519	5.3	5.5	13.427	B
D - A1173 N	333	83	711	1366	0.243	332	956	0.4	0.4	4.532	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	347	87	195	1792	0.194	347	663	0.5	0.4	3.987	A
B - Access	22	6	524	1176	0.019	23	19	0.0	0.0	4.335	A
C - A1173 W	1240	310	122	1843	0.673	1252	424	5.5	2.4	7.149	A
D - A1173 N	271	68	586	1451	0.187	272	788	0.4	0.3	3.979	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	291	73	164	1814	0.160	291	552	0.4	0.3	3.783	A
B - Access	19	5	439	1226	0.015	19	16	0.0	0.0	4.140	A
C - A1173 W	1038	260	103	1857	0.559	1042	355	2.4	1.5	5.110	A
D - A1173 N	227	57	488	1517	0.150	228	656	0.3	0.2	3.637	A

2025 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	5.49	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.49	A

Traffic Demand

Demand Set 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	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	710	100.000
B - Access		ONE HOUR	✓	25	100.000
C - A1173 W		ONE HOUR	✓	543	100.000
D - A1173 N		ONE HOUR	✓	788	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	8	580	122
	B - Access	4	0	14	7
	C - A1173 W	277	25	0	241
	D - A1173 N	117	47	624	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	14	14	26
	B - Access	0	0	71	0
	C - A1173 W	61	0	0	22
	D - A1173 N	42	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.55	6.65	1.4	A	652	977
B - Access	0.04	7.91	0.1	A	23	34
C - A1173 W	0.33	4.03	0.7	A	498	747
D - A1173 N	0.54	5.38	1.3	A	723	1085

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	535	134	522	1573	0.340	532	298	0.0	0.6	3.999	A
B - Access	19	5	994	897	0.021	19	60	0.0	0.0	5.340	A
C - A1173 W	409	102	100	1859	0.220	407	913	0.0	0.4	3.410	A
D - A1173 N	593	148	229	1692	0.351	591	277	0.0	0.6	3.663	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	638	160	625	1504	0.424	637	357	0.6	0.8	4.808	A
B - Access	22	6	1190	781	0.029	22	72	0.0	0.0	6.186	A
C - A1173 W	488	122	119	1845	0.265	488	1093	0.4	0.5	3.650	A
D - A1173 N	708	177	275	1661	0.426	707	332	0.6	0.8	4.234	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	782	195	765	1410	0.554	779	438	0.8	1.4	6.594	A
B - Access	28	7	1456	623	0.044	27	88	0.0	0.1	7.875	A
C - A1173 W	598	149	146	1827	0.327	597	1338	0.5	0.7	4.028	A
D - A1173 N	868	217	337	1620	0.536	866	407	0.8	1.3	5.348	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	782	195	766	1409	0.555	782	438	1.4	1.4	6.652	A
B - Access	28	7	1460	621	0.044	28	88	0.1	0.1	7.905	A
C - A1173 W	598	149	146	1826	0.327	598	1341	0.7	0.7	4.032	A
D - A1173 N	868	217	337	1619	0.536	868	407	1.3	1.3	5.375	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	638	160	627	1502	0.425	641	358	1.4	0.9	4.853	A
B - Access	22	6	1196	777	0.029	23	72	0.1	0.0	6.213	A
C - A1173 W	488	122	120	1845	0.265	489	1098	0.7	0.5	3.654	A
D - A1173 N	708	177	275	1661	0.427	710	333	1.3	0.8	4.258	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	535	134	525	1571	0.340	536	300	0.9	0.6	4.032	A
B - Access	19	5	1000	893	0.021	19	60	0.0	0.0	5.363	A
C - A1173 W	409	102	100	1858	0.220	409	919	0.5	0.4	3.421	A
D - A1173 N	593	148	231	1691	0.351	594	279	0.8	0.6	3.689	A

2025 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	18.65	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	18.65	C

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	386	100.000
B - Access		ONE HOUR	✓	25	100.000
C - A1173 W		ONE HOUR	✓	1519	100.000
D - A1173 N		ONE HOUR	✓	385	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	2	259	125
	B - Access	5	0	14	6
	C - A1173 W	630	11	0	878
	D - A1173 N	96	8	281	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	66	50
	B - Access	0	0	100	0
	C - A1173 W	21	67	0	17
	D - A1173 N	26	0	43	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.25	4.51	0.5	A	354	531
B - Access	0.03	4.88	0.0	A	23	34
C - A1173 W	0.92	25.87	11.3	D	1394	2091
D - A1173 N	0.31	5.23	0.6	A	353	530

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	291	73	225	1773	0.164	289	547	0.0	0.3	3.878	A
B - Access	19	5	498	1191	0.016	19	16	0.0	0.0	4.265	A
C - A1173 W	1144	286	102	1857	0.616	1136	415	0.0	1.9	5.878	A
D - A1173 N	290	72	483	1520	0.191	289	755	0.0	0.3	4.004	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	347	87	269	1743	0.199	347	655	0.3	0.4	4.122	A
B - Access	22	6	597	1132	0.020	22	19	0.0	0.0	4.504	A
C - A1173 W	1366	341	122	1843	0.741	1360	497	1.9	3.3	8.755	A
D - A1173 N	346	87	578	1456	0.238	346	904	0.3	0.4	4.446	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	425	106	330	1702	0.250	424	793	0.4	0.5	4.503	A
B - Access	28	7	731	1053	0.026	27	23	0.0	0.0	4.875	A
C - A1173 W	1672	418	150	1824	0.917	1645	609	3.3	10.2	21.203	C
D - A1173 N	424	106	700	1374	0.308	423	1095	0.4	0.6	5.189	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	425	106	330	1702	0.250	425	803	0.5	0.5	4.508	A
B - Access	28	7	732	1052	0.026	28	23	0.0	0.0	4.878	A
C - A1173 W	1672	418	150	1824	0.917	1668	610	10.2	11.3	25.867	D
D - A1173 N	424	106	709	1367	0.310	424	1108	0.6	0.6	5.232	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	347	87	270	1742	0.199	348	670	0.5	0.4	4.131	A
B - Access	22	6	599	1131	0.020	23	19	0.0	0.0	4.511	A
C - A1173 W	1366	341	122	1843	0.741	1397	499	11.3	3.5	10.207	B
D - A1173 N	346	87	594	1446	0.239	347	925	0.6	0.4	4.496	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	291	73	226	1772	0.164	291	553	0.4	0.3	3.888	A
B - Access	19	5	501	1189	0.016	19	16	0.0	0.0	4.273	A
C - A1173 W	1144	286	103	1857	0.616	1150	418	3.5	1.9	6.110	A
D - A1173 N	290	72	489	1516	0.191	290	763	0.4	0.3	4.029	A

2025 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	6.57	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.57	A

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	710	100.000
B - Access		ONE HOUR	✓	25	100.000
C - A1173 W		ONE HOUR	✓	730	100.000
D - A1173 N		ONE HOUR	✓	901	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	8	580	122
	B - Access	4	0	14	7
	C - A1173 W	277	25	0	428
	D - A1173 N	117	47	737	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	14	14	26
	B - Access	0	0	71	0
	C - A1173 W	61	0	0	43
	D - A1173 N	42	0	16	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.59	7.67	1.6	A	652	977
B - Access	0.05	9.03	0.1	A	23	34
C - A1173 W	0.44	5.18	1.2	A	670	1005
D - A1173 N	0.61	6.76	1.8	A	827	1240

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	535	134	606	1516	0.352	532	298	0.0	0.6	4.228	A
B - Access	19	5	1078	847	0.022	19	60	0.0	0.0	5.663	A
C - A1173 W	550	137	100	1859	0.296	547	997	0.0	0.6	4.029	A
D - A1173 N	678	170	229	1692	0.401	675	417	0.0	0.8	4.159	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	638	160	726	1436	0.445	637	357	0.6	0.9	5.216	A
B - Access	22	6	1291	721	0.031	22	72	0.0	0.0	6.717	A
C - A1173 W	656	164	119	1845	0.356	655	1194	0.6	0.8	4.448	A
D - A1173 N	810	202	275	1661	0.488	809	500	0.8	1.1	4.967	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	782	195	888	1327	0.589	779	437	0.9	1.6	7.573	A
B - Access	28	7	1579	550	0.050	27	88	0.0	0.1	8.971	A
C - A1173 W	804	201	146	1827	0.440	802	1461	0.8	1.1	5.163	A
D - A1173 N	992	248	336	1620	0.612	989	612	1.1	1.8	6.695	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	782	195	891	1325	0.590	782	438	1.6	1.6	7.672	A
B - Access	28	7	1584	547	0.050	28	88	0.1	0.1	9.027	A
C - A1173 W	804	201	146	1826	0.440	804	1465	1.1	1.2	5.177	A
D - A1173 N	992	248	337	1619	0.613	992	613	1.8	1.8	6.757	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	638	160	730	1433	0.445	641	359	1.6	0.9	5.286	A
B - Access	22	6	1299	716	0.031	23	72	0.1	0.0	6.761	A
C - A1173 W	656	164	120	1845	0.356	658	1201	1.2	0.8	4.465	A
D - A1173 N	810	202	276	1661	0.488	813	502	1.8	1.1	5.020	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	535	134	610	1514	0.353	536	300	0.9	0.6	4.272	A
B - Access	19	5	1086	843	0.022	19	60	0.0	0.0	5.695	A
C - A1173 W	550	137	100	1858	0.296	550	1004	0.8	0.6	4.052	A
D - A1173 N	678	170	231	1691	0.401	680	420	1.1	0.8	4.198	A

2032 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	6.28	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.28	A

Traffic Demand

Demand Set 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	2032 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	272	100.000
B - Access		ONE HOUR	✓	0	100.000
C - A1173 W		ONE HOUR	✓	1174	100.000
D - A1173 N		ONE HOUR	✓	282	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	142	130
	B - Access	0	0	0	0
	C - A1173 W	495	2	0	677
	D - A1173 N	100	0	182	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	49	50
	B - Access	0	0	0	0
	C - A1173 W	11	0	0	10
	D - A1173 N	26	0	39	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.17	3.61	0.3	A	250	374
B - Access	0.00	0.00	0.0	A	0	0
C - A1173 W	0.71	7.41	2.6	A	1077	1616
D - A1173 N	0.21	4.14	0.4	A	259	388

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	205	51	138	1831	0.112	204	446	0.0	0.2	3.305	A
B - Access	0	0	341	1284	0.000	0	1	0.0	0.0	0.000	A
C - A1173 W	884	221	98	1860	0.475	880	243	0.0	1.0	4.038	A
D - A1173 N	212	53	372	1595	0.133	211	605	0.0	0.2	3.486	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	245	61	165	1813	0.135	244	534	0.2	0.2	3.430	A
B - Access	0	0	408	1245	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1055	264	117	1847	0.571	1054	291	1.0	1.5	4.997	A
D - A1173 N	254	63	446	1546	0.164	253	724	0.2	0.3	3.735	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	299	75	202	1788	0.168	299	653	0.2	0.3	3.614	A
B - Access	0	0	499	1190	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1293	323	143	1829	0.707	1288	356	1.5	2.6	7.288	A
D - A1173 N	310	78	545	1478	0.210	310	886	0.3	0.4	4.131	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	299	75	203	1788	0.168	299	655	0.3	0.3	3.614	A
B - Access	0	0	500	1190	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1293	323	143	1829	0.707	1292	357	2.6	2.6	7.408	A
D - A1173 N	310	78	547	1477	0.210	310	888	0.4	0.4	4.137	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	245	61	166	1813	0.135	245	537	0.3	0.2	3.432	A
B - Access	0	0	409	1244	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	1055	264	117	1847	0.572	1060	292	2.6	1.5	5.080	A
D - A1173 N	254	63	449	1544	0.164	254	728	0.4	0.3	3.742	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	205	51	139	1831	0.112	205	449	0.2	0.2	3.309	A
B - Access	0	0	342	1283	0.000	0	2	0.0	0.0	0.000	A
C - A1173 W	884	221	98	1860	0.475	886	244	1.5	1.0	4.089	A
D - A1173 N	212	53	375	1594	0.133	213	609	0.3	0.2	3.495	A

2032 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	4.72	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.72	A

Traffic Demand

Demand Set 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	2032 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	656	100.000
B - Access		ONE HOUR	✓	2	100.000
C - A1173 W		ONE HOUR	✓	416	100.000
D - A1173 N		ONE HOUR	✓	751	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	4	525	127
	B - Access	0	0	2	0
	C - A1173 W	206	0	0	210
	D - A1173 N	122	0	629	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	8	26
	B - Access	0	0	0	0
	C - A1173 W	56	0	0	25
	D - A1173 N	42	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.50	5.43	1.1	A	602	903
B - Access	0.00	0.00	0.0	A	0	0
C - A1173 W	0.25	3.63	0.5	A	382	573
D - A1173 N	0.49	4.70	1.1	A	689	1034

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	494	123	472	1607	0.307	492	246	0.0	0.5	3.578	A
B - Access	0	0	961	917	0.000	0	3	0.0	0.0	0.000	A
C - A1173 W	313	78	95	1862	0.168	312	865	0.0	0.3	3.219	A
D - A1173 N	565	141	155	1743	0.324	563	253	0.0	0.5	3.452	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	590	147	565	1544	0.382	589	295	0.5	0.7	4.180	A
B - Access	0	0	1150	804	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	374	93	114	1849	0.202	374	1036	0.3	0.3	3.383	A
D - A1173 N	675	169	185	1722	0.392	674	303	0.5	0.7	3.890	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	722	181	691	1459	0.495	721	361	0.7	1.1	5.399	A
B - Access	0	0	1408	652	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	458	115	140	1831	0.250	458	1268	0.3	0.5	3.634	A
D - A1173 N	827	207	227	1694	0.488	825	371	0.7	1.1	4.687	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	722	181	693	1458	0.495	722	361	1.1	1.1	5.428	A
B - Access	0	0	1410	650	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	458	115	140	1831	0.250	458	1271	0.5	0.5	3.634	A
D - A1173 N	827	207	227	1694	0.488	827	371	1.1	1.1	4.703	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	590	147	567	1543	0.382	591	295	1.1	0.7	4.207	A
B - Access	0	0	1154	802	0.000	0	4	0.0	0.0	0.000	A
C - A1173 W	374	93	114	1848	0.202	374	1040	0.5	0.4	3.388	A
D - A1173 N	675	169	185	1722	0.392	676	303	1.1	0.7	3.906	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	494	123	474	1605	0.308	495	247	0.7	0.5	3.603	A
B - Access	0	0	966	914	0.000	0	3	0.0	0.0	0.000	A
C - A1173 W	313	78	96	1861	0.168	313	870	0.4	0.3	3.224	A
D - A1173 N	565	141	155	1742	0.325	566	254	0.7	0.5	3.471	A

2032 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	12.16	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.16	B

Traffic Demand

Demand Set 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	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	396	100.000
B - Access		ONE HOUR	✓	25	100.000
C - A1173 W		ONE HOUR	✓	1424	100.000
D - A1173 N		ONE HOUR	✓	313	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	2	264	130
	B - Access	5	0	14	6
	C - A1173 W	649	11	0	764
	D - A1173 N	100	8	205	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	66	50
	B - Access	0	0	100	0
	C - A1173 W	21	67	0	10
	D - A1173 N	26	0	34	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.25	4.35	0.5	A	363	545
B - Access	0.03	4.68	0.0	A	23	34
C - A1173 W	0.86	16.12	6.7	C	1307	1960
D - A1173 N	0.25	4.65	0.4	A	287	431

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	298	75	168	1811	0.165	297	564	0.0	0.3	3.797	A
B - Access	19	5	449	1220	0.015	19	16	0.0	0.0	4.162	A
C - A1173 W	1072	268	106	1854	0.578	1066	362	0.0	1.6	5.213	A
D - A1173 N	236	59	498	1511	0.156	235	674	0.0	0.2	3.673	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	356	89	201	1789	0.199	356	676	0.3	0.4	4.015	A
B - Access	22	6	538	1167	0.019	22	19	0.0	0.0	4.366	A
C - A1173 W	1280	320	127	1840	0.696	1276	434	1.6	2.6	7.294	A
D - A1173 N	281	70	596	1444	0.195	281	807	0.2	0.3	4.029	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	436	109	246	1758	0.248	435	823	0.4	0.5	4.347	A
B - Access	28	7	659	1096	0.025	27	23	0.0	0.0	4.679	A
C - A1173 W	1568	392	155	1820	0.861	1552	531	2.6	6.4	14.684	B
D - A1173 N	345	86	725	1357	0.254	344	983	0.3	0.4	4.627	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	436	109	247	1758	0.248	436	830	0.5	0.5	4.352	A
B - Access	28	7	659	1095	0.025	28	23	0.0	0.0	4.682	A
C - A1173 W	1568	392	155	1820	0.861	1567	532	6.4	6.7	16.116	C
D - A1173 N	345	86	732	1352	0.255	345	990	0.4	0.4	4.651	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	356	89	202	1788	0.199	356	685	0.5	0.4	4.020	A
B - Access	22	6	539	1167	0.019	23	19	0.0	0.0	4.370	A
C - A1173 W	1280	320	127	1840	0.696	1296	435	6.7	2.7	7.838	A
D - A1173 N	281	70	605	1438	0.196	282	818	0.4	0.3	4.058	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	298	75	169	1810	0.165	298	570	0.4	0.3	3.809	A
B - Access	19	5	451	1219	0.015	19	16	0.0	0.0	4.168	A
C - A1173 W	1072	268	106	1854	0.578	1076	364	2.7	1.6	5.358	A
D - A1173 N	236	59	503	1507	0.156	236	680	0.3	0.2	3.687	A

2032 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	5.79	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.79	A

Traffic Demand

Demand Set 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	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	735	100.000
B - Access		ONE HOUR	✓	25	100.000
C - A1173 W		ONE HOUR	✓	558	100.000
D - A1173 N		ONE HOUR	✓	816	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	9	599	127
	B - Access	4	0	14	7
	C - A1173 W	284	25	0	249
	D - A1173 N	122	47	647	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	14	14	26
	B - Access	0	0	71	0
	C - A1173 W	61	0	0	22
	D - A1173 N	42	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.58	7.16	1.6	A	674	1012
B - Access	0.05	8.34	0.1	A	23	34
C - A1173 W	0.34	4.10	0.7	A	512	768
D - A1173 N	0.56	5.65	1.4	A	749	1123

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	553	138	539	1562	0.354	551	307	0.0	0.6	4.118	A
B - Access	19	5	1029	876	0.021	19	61	0.0	0.0	5.470	A
C - A1173 W	420	105	103	1856	0.226	418	944	0.0	0.4	3.443	A
D - A1173 N	614	154	235	1688	0.364	612	287	0.0	0.6	3.744	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	661	165	646	1490	0.443	660	368	0.6	0.9	5.017	A
B - Access	22	6	1232	756	0.030	22	73	0.0	0.0	6.396	A
C - A1173 W	502	125	124	1842	0.272	501	1131	0.4	0.5	3.695	A
D - A1173 N	734	183	281	1657	0.443	733	344	0.6	0.9	4.369	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	809	202	790	1393	0.581	807	451	0.9	1.6	7.082	A
B - Access	28	7	1507	593	0.046	27	89	0.0	0.1	8.298	A
C - A1173 W	614	154	151	1823	0.337	614	1383	0.5	0.7	4.094	A
D - A1173 N	898	225	344	1614	0.557	896	421	0.9	1.4	5.615	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	809	202	792	1392	0.581	809	451	1.6	1.6	7.158	A
B - Access	28	7	1512	590	0.047	28	89	0.1	0.1	8.336	A
C - A1173 W	614	154	152	1822	0.337	614	1387	0.7	0.7	4.100	A
D - A1173 N	898	225	345	1614	0.557	898	422	1.4	1.4	5.649	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	661	165	648	1488	0.444	663	369	1.6	0.9	5.075	A
B - Access	22	6	1238	752	0.030	23	73	0.1	0.0	6.432	A
C - A1173 W	502	125	125	1841	0.272	502	1137	0.7	0.5	3.703	A
D - A1173 N	734	183	282	1657	0.443	736	345	1.4	0.9	4.400	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	553	138	542	1559	0.355	555	309	0.9	0.6	4.156	A
B - Access	19	5	1036	872	0.022	19	61	0.0	0.0	5.497	A
C - A1173 W	420	105	104	1856	0.226	421	950	0.5	0.4	3.452	A
D - A1173 N	614	154	236	1688	0.364	615	289	0.9	0.6	3.773	A

2032 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	24.56	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	24.56	C

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	396	100.000
B - Access		ONE HOUR	✓	25	100.000
C - A1173 W		ONE HOUR	✓	1564	100.000
D - A1173 N		ONE HOUR	✓	396	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	2	264	130
	B - Access	5	0	14	6
	C - A1173 W	649	11	0	904
	D - A1173 N	100	8	288	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	0	66	50
	B - Access	0	0	100	0
	C - A1173 W	21	67	0	17
	D - A1173 N	26	0	43	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.26	4.56	0.6	A	363	545
B - Access	0.03	4.93	0.0	A	23	34
C - A1173 W	0.95	34.80	15.6	D	1435	2153
D - A1173 N	0.32	5.37	0.6	A	363	545

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	298	75	230	1769	0.169	297	564	0.0	0.3	3.905	A
B - Access	19	5	511	1183	0.016	19	16	0.0	0.0	4.293	A
C - A1173 W	1177	294	106	1855	0.635	1169	424	0.0	2.0	6.177	A
D - A1173 N	298	75	497	1511	0.197	297	778	0.0	0.3	4.062	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	356	89	276	1739	0.205	356	675	0.3	0.4	4.160	A
B - Access	22	6	612	1123	0.020	22	19	0.0	0.0	4.541	A
C - A1173 W	1406	352	127	1840	0.764	1399	508	2.0	3.7	9.566	A
D - A1173 N	356	89	595	1445	0.246	356	931	0.3	0.4	4.530	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	436	109	337	1697	0.257	435	814	0.4	0.5	4.559	A
B - Access	28	7	750	1042	0.026	27	23	0.0	0.0	4.929	A
C - A1173 W	1722	430	155	1820	0.946	1684	622	3.7	13.3	26.017	D
D - A1173 N	436	109	716	1363	0.320	435	1123	0.4	0.6	5.316	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	436	109	338	1697	0.257	436	826	0.5	0.6	4.564	A
B - Access	28	7	751	1041	0.026	28	23	0.0	0.0	4.932	A
C - A1173 W	1722	430	155	1820	0.946	1713	623	13.3	15.6	34.799	D
D - A1173 N	436	109	728	1355	0.322	436	1140	0.6	0.6	5.373	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	356	89	277	1738	0.205	357	697	0.6	0.4	4.169	A
B - Access	22	6	614	1122	0.020	23	19	0.0	0.0	4.548	A
C - A1173 W	1406	352	127	1840	0.764	1452	510	15.6	4.0	12.249	B
D - A1173 N	356	89	617	1430	0.249	357	962	0.6	0.5	4.605	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	298	75	232	1768	0.169	298	571	0.4	0.3	3.916	A
B - Access	19	5	514	1182	0.016	19	16	0.0	0.0	4.300	A
C - A1173 W	1177	294	106	1854	0.635	1185	427	4.0	2.1	6.469	A
D - A1173 N	298	75	504	1506	0.198	299	788	0.5	0.3	4.090	A

2032 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	6.99	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.99	A

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Kiln Lane		ONE HOUR	✓	735	100.000
B - Access		ONE HOUR	✓	25	100.000
C - A1173 W		ONE HOUR	✓	745	100.000
D - A1173 N		ONE HOUR	✓	930	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	9	599	127
	B - Access	4	0	14	7
	C - A1173 W	284	25	0	436
	D - A1173 N	122	47	761	0

Vehicle Mix

HV %s

		To			
		A - Kiln Lane	B - Access	C - A1173 W	D - A1173 N
From	A - Kiln Lane	0	14	14	26
	B - Access	0	0	71	0
	C - A1173 W	61	0	0	43
	D - A1173 N	42	0	16	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Kiln Lane	0.62	8.37	1.9	A	674	1012
B - Access	0.05	9.61	0.1	A	23	34
C - A1173 W	0.45	5.28	1.2	A	684	1025
D - A1173 N	0.63	7.19	2.0	A	853	1280

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	553	138	624	1504	0.368	551	307	0.0	0.7	4.363	A
B - Access	19	5	1114	826	0.023	19	61	0.0	0.0	5.812	A
C - A1173 W	561	140	103	1856	0.302	558	1029	0.0	0.6	4.075	A
D - A1173 N	700	175	235	1689	0.415	697	427	0.0	0.8	4.266	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	661	165	748	1421	0.465	659	368	0.7	1.0	5.467	A
B - Access	22	6	1334	695	0.032	22	73	0.0	0.0	6.971	A
C - A1173 W	670	167	124	1842	0.364	669	1233	0.6	0.8	4.513	A
D - A1173 N	836	209	281	1657	0.505	835	512	0.8	1.2	5.149	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	809	202	914	1309	0.618	806	450	1.0	1.8	8.233	A
B - Access	28	7	1631	519	0.053	27	89	0.0	0.1	9.535	A
C - A1173 W	820	205	151	1823	0.450	819	1507	0.8	1.2	5.268	A
D - A1173 N	1024	256	344	1615	0.634	1021	626	1.2	2.0	7.105	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	809	202	917	1308	0.619	809	451	1.8	1.9	8.369	A
B - Access	28	7	1637	516	0.053	28	89	0.1	0.1	9.606	A
C - A1173 W	820	205	152	1822	0.450	820	1513	1.2	1.2	5.285	A
D - A1173 N	1024	256	345	1614	0.634	1024	628	2.0	2.0	7.186	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	661	165	752	1419	0.466	664	370	1.9	1.0	5.555	A
B - Access	22	6	1343	690	0.033	23	73	0.1	0.0	7.028	A
C - A1173 W	670	167	125	1841	0.364	671	1241	1.2	0.8	4.533	A
D - A1173 N	836	209	282	1656	0.505	839	514	2.0	1.2	5.212	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Kiln Lane	553	138	628	1502	0.369	555	309	1.0	0.7	4.414	A
B - Access	19	5	1122	821	0.023	19	61	0.0	0.0	5.849	A
C - A1173 W	561	140	104	1856	0.302	562	1037	0.8	0.6	4.098	A
D - A1173 N	700	175	236	1688	0.415	702	430	1.2	0.8	4.311	A

Appendix TN2 H

A1173/ SHIIP Junction Assessment Results

<h1>Junctions 10</h1>
<h2>ARCADY 10 - Roundabout Module</h2>
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Filename: A1173-SHIP.j10
Path: P:\23000's\23325\Junction Assessment\1 Base Assessment
Report generation date: 19/10/2023 17:21:13

- »2021 Baseline, AM
- »2021 Baseline, PM
- »2025 Baseline, AM
- »2025 Baseline, PM
- »2025 Baseline + Committed, AM
- »2025 Baseline + Committed, PM
- »2025 Baseline + Committed + Development, AM
- »2025 Baseline + Committed + Development, PM
- »2032 Baseline, AM
- »2032 Baseline, PM
- »2032 Baseline + Committed, AM
- »2032 Baseline + Committed, PM
- »2032 Baseline + Committed + Development, AM
- »2032 Baseline + Committed + Development, PM

Summary of junction performance

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Baseline						
SHIIP Access S	0.0	0.00	0.00	0.0	0.00	0.00
A1173 W	1.2	3.71	0.53	0.3	2.69	0.19
SHIIP Access N	0.0	0.00	0.00	0.0	0.00	0.00
A1173 E	0.3	2.82	0.15	1.3	4.04	0.55
2025 Baseline						
SHIIP Access S	0.0	0.00	0.00	0.0	0.00	0.00
A1173 W	1.3	3.83	0.55	0.3	2.70	0.19
SHIIP Access N	0.0	0.00	0.00	0.0	0.00	0.00
A1173 E	0.3	2.84	0.16	1.4	4.18	0.57
2025 Baseline + Committed						
SHIIP Access S	0.0	2.98	0.02	0.3	5.11	0.20
A1173 W	1.6	4.40	0.59	0.7	3.37	0.33
SHIIP Access N	0.0	5.43	0.01	0.0	3.24	0.03
A1173 E	0.3	3.00	0.19	2.5	6.42	0.70
2025 Baseline + Committed + Development						
SHIIP Access S	0.0	3.12	0.02	0.3	5.86	0.22
A1173 W	2.3	5.64	0.67	1.2	4.25	0.44
SHIIP Access N	0.0	6.20	0.01	0.0	3.68	0.03
A1173 E	0.5	3.28	0.24	3.7	8.64	0.77
2032 Baseline						
SHIIP Access S	0.0	0.00	0.00	0.0	0.00	0.00
A1173 W	1.4	4.02	0.57	0.3	2.73	0.20
SHIIP Access N	0.0	0.00	0.00	0.0	0.00	0.00
A1173 E	0.3	2.86	0.17	1.5	4.40	0.59
2032 Baseline + Committed						
SHIIP Access S	0.1	3.33	0.07	0.3	5.33	0.21
A1173 W	3.9	8.16	0.78	0.7	3.40	0.34
SHIIP Access N	0.1	7.72	0.04	0.0	3.27	0.03
A1173 E	0.6	3.58	0.30	2.8	6.93	0.72
2032 Baseline + Committed + Development						
SHIIP Access S	0.1	3.51	0.08	0.3	6.14	0.23
A1173 W	6.7	12.96	0.86	1.2	4.31	0.44
SHIIP Access N	0.1	9.37	0.04	0.0	3.72	0.03
A1173 E	0.8	3.98	0.35	4.2	9.55	0.79

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 Av. delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	02/08/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\arcady
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

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	2021 Baseline	AM	ONE HOUR	06:45	08:15	15	✓
D2	2021 Baseline	PM	ONE HOUR	15:45	17:15	15	✓
D3	2025 Baseline	AM	ONE HOUR	06:45	08:15	15	✓
D4	2025 Baseline	PM	ONE HOUR	15:45	17:15	15	✓
D5	2025 Baseline + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D6	2025 Baseline + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D7	2025 Baseline + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D8	2025 Baseline + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓
D9	2032 Baseline	AM	ONE HOUR	06:45	08:15	15	✓
D10	2032 Baseline	PM	ONE HOUR	15:45	17:15	15	✓
D11	2032 Baseline + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D12	2032 Baseline + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D13	2032 Baseline + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D14	2032 Baseline + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2021 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.52	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.52	A

Arms

Arms

Arm	Name	Description	No give-way line
1	SHIIP Access S		
2	A1173 W		
3	SHIIP Access N		
4	A1173 E		

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
SHIIP Access S	3.70	7.75	26.5	27.8	44.0	31.0		
A1173 W	3.60	7.80	99.6	29.6	44.0	26.0		
SHIIP Access N	3.30	7.60	25.9	19.2	44.0	32.0		
A1173 E	3.90	7.80	94.8	17.6	40.1	37.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
SHIIP Access S	0.686	1965
A1173 W	0.753	2278
SHIIP Access N	0.655	1834
A1173 E	0.724	2157

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	2021 Baseline	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	0	100.000
A1173 W		ONE HOUR	✓	1099	100.000
SHIIP Access N		ONE HOUR	✓	0	100.000
A1173 E		ONE HOUR	✓	303	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	0	0	0
	A1173 W	0	0	0	1099
	SHIIP Access N	0	0	0	0
	A1173 E	0	303	0	0

Vehicle Mix

HV %s

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	0	0	0
	A1173 W	0	0	0	10
	SHIIP Access N	0	0	0	0
	A1173 E	0	43	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.00	0.00	0.0	A	0	0
A1173 W	0.53	3.71	1.2	A	1008	1513
SHIIP Access N	0.00	0.00	0.0	A	0	0
A1173 E	0.15	2.82	0.3	A	278	417

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	227	1809	0.000	0	0	0.0	0.0	0.000	A
A1173 W	827	207	0	2278	0.363	825	227	0.0	0.6	2.721	A
SHIIP Access N	0	0	825	1294	0.000	0	0	0.0	0.0	0.000	A
A1173 E	228	57	0	2157	0.106	227	825	0.0	0.2	2.668	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	272	1778	0.000	0	0	0.0	0.0	0.000	A
A1173 W	988	247	0	2278	0.434	987	272	0.6	0.8	3.066	A
SHIIP Access N	0	0	987	1188	0.000	0	0	0.0	0.0	0.000	A
A1173 E	272	68	0	2157	0.126	272	987	0.2	0.2	2.731	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	333	1736	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1210	303	0	2278	0.531	1208	333	0.8	1.2	3.698	A
SHIIP Access N	0	0	1208	1043	0.000	0	0	0.0	0.0	0.000	A
A1173 E	334	83	0	2157	0.155	333	1208	0.2	0.3	2.822	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	334	1736	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1210	303	0	2278	0.531	1210	334	1.2	1.2	3.707	A
SHIIP Access N	0	0	1210	1042	0.000	0	0	0.0	0.0	0.000	A
A1173 E	334	83	0	2157	0.155	334	1210	0.3	0.3	2.822	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	273	1778	0.000	0	0	0.0	0.0	0.000	A
A1173 W	988	247	0	2278	0.434	990	273	1.2	0.8	3.079	A
SHIIP Access N	0	0	990	1186	0.000	0	0	0.0	0.0	0.000	A
A1173 E	272	68	0	2157	0.126	273	990	0.3	0.2	2.731	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	228	1809	0.000	0	0	0.0	0.0	0.000	A
A1173 W	827	207	0	2278	0.363	828	228	0.8	0.6	2.734	A
SHIIP Access N	0	0	828	1292	0.000	0	0	0.0	0.0	0.000	A
A1173 E	228	57	0	2157	0.106	228	828	0.2	0.2	2.670	A

2021 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.68	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.68	A

Traffic Demand

Demand Set 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	2021 Baseline	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	0	100.000
A1173 W		ONE HOUR	✓	391	100.000
SHIIP Access N		ONE HOUR	✓	0	100.000
A1173 E		ONE HOUR	✓	1086	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	0	0	0
	A1173 W	0	0	0	391
	SHIIP Access N	0	0	0	0
	A1173 E	0	1086	0	0

Vehicle Mix

HV %s

From	To			
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	0	0	0
A1173 W	0	0	0	38
SHIIP Access N	0	0	0	0
A1173 E	0	8	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.00	0.00	0.0	A	0	0
A1173 W	0.19	2.69	0.3	A	359	538
SHIIP Access N	0.00	0.00	0.0	A	0	0
A1173 E	0.55	4.04	1.3	A	997	1495

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	815	1406	0.000	0	0	0.0	0.0	0.000	A
A1173 W	294	74	0	2278	0.129	294	815	0.0	0.2	2.502	A
SHIIP Access N	0	0	294	1642	0.000	0	0	0.0	0.0	0.000	A
A1173 E	818	204	0	2157	0.379	815	294	0.0	0.7	2.893	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	975	1296	0.000	0	0	0.0	0.0	0.000	A
A1173 W	352	88	0	2278	0.154	351	975	0.2	0.3	2.578	A
SHIIP Access N	0	0	351	1604	0.000	0	0	0.0	0.0	0.000	A
A1173 E	976	244	0	2157	0.453	975	351	0.7	0.9	3.286	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	1194	1146	0.000	0	0	0.0	0.0	0.000	A
A1173 W	430	108	0	2278	0.189	430	1194	0.3	0.3	2.688	A
SHIIP Access N	0	0	430	1552	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1196	299	0	2157	0.554	1194	430	0.9	1.3	4.029	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	1196	1145	0.000	0	0	0.0	0.0	0.000	A
A1173 W	430	108	0	2278	0.189	430	1196	0.3	0.3	2.688	A
SHIIP Access N	0	0	430	1552	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1196	299	0	2157	0.554	1196	430	1.3	1.3	4.044	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	978	1294	0.000	0	0	0.0	0.0	0.000	A
A1173 W	352	88	0	2278	0.154	352	978	0.3	0.3	2.581	A
SHIP Access N	0	0	352	1604	0.000	0	0	0.0	0.0	0.000	A
A1173 E	976	244	0	2157	0.453	978	352	1.3	0.9	3.304	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	819	1404	0.000	0	0	0.0	0.0	0.000	A
A1173 W	294	74	0	2278	0.129	295	819	0.3	0.2	2.506	A
SHIP Access N	0	0	295	1641	0.000	0	0	0.0	0.0	0.000	A
A1173 E	818	204	0	2157	0.379	819	295	0.9	0.7	2.906	A

2025 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.61	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.61	A

Traffic Demand

Demand Set 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	2025 Baseline	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	0	100.000
A1173 W		ONE HOUR	✓	1129	100.000
SHIIP Access N		ONE HOUR	✓	0	100.000
A1173 E		ONE HOUR	✓	311	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	0	0	0
	A1173 W	0	0	0	1129
	SHIIP Access N	0	0	0	0
	A1173 E	0	311	0	0

Vehicle Mix

HV %s

		To			
From		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
	SHIIP Access S	0	0	0	0
	A1173 W	0	0	0	10
	SHIIP Access N	0	0	0	0
	A1173 E	0	43	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.00	0.00	0.0	A	0	0
A1173 W	0.55	3.83	1.3	A	1036	1554
SHIIP Access N	0.00	0.00	0.0	A	0	0
A1173 E	0.16	2.84	0.3	A	285	428

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	233	1805	0.000	0	0	0.0	0.0	0.000	A
A1173 W	850	212	0	2278	0.373	847	233	0.0	0.7	2.764	A
SHIIP Access N	0	0	847	1279	0.000	0	0	0.0	0.0	0.000	A
A1173 E	234	59	0	2157	0.109	233	847	0.0	0.2	2.676	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	279	1773	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1015	254	0	2278	0.446	1014	279	0.7	0.9	3.132	A
SHIIP Access N	0	0	1014	1170	0.000	0	0	0.0	0.0	0.000	A
A1173 E	280	70	0	2157	0.130	279	1014	0.2	0.2	2.741	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	342	1730	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1243	311	0	2278	0.546	1241	342	0.9	1.3	3.813	A
SHIIP Access N	0	0	1241	1021	0.000	0	0	0.0	0.0	0.000	A
A1173 E	342	86	0	2157	0.159	342	1241	0.2	0.3	2.836	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	342	1730	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1243	311	0	2278	0.546	1243	342	1.3	1.3	3.825	A
SHIIP Access N	0	0	1243	1020	0.000	0	0	0.0	0.0	0.000	A
A1173 E	342	86	0	2157	0.159	342	1243	0.3	0.3	2.836	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	280	1773	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1015	254	0	2278	0.446	1017	280	1.3	0.9	3.145	A
SHIP Access N	0	0	1017	1169	0.000	0	0	0.0	0.0	0.000	A
A1173 E	280	70	0	2157	0.130	280	1017	0.3	0.2	2.744	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	234	1804	0.000	0	0	0.0	0.0	0.000	A
A1173 W	850	212	0	2278	0.373	851	234	0.9	0.7	2.776	A
SHIP Access N	0	0	851	1277	0.000	0	0	0.0	0.0	0.000	A
A1173 E	234	59	0	2157	0.109	234	851	0.2	0.2	2.677	A

2025 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.79	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.79	A

Traffic Demand

Demand Set 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	2025 Baseline	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	0	100.000
A1173 W		ONE HOUR	✓	401	100.000
SHIIP Access N		ONE HOUR	✓	0	100.000
A1173 E		ONE HOUR	✓	1114	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	0	0	0
	A1173 W	0	0	0	401
	SHIIP Access N	0	0	0	0
	A1173 E	0	1114	0	0

Vehicle Mix

HV %s

From	To			
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	0	0	0
A1173 W	0	0	0	38
SHIIP Access N	0	0	0	0
A1173 E	0	8	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.00	0.00	0.0	A	0	0
A1173 W	0.19	2.70	0.3	A	368	552
SHIIP Access N	0.00	0.00	0.0	A	0	0
A1173 E	0.57	4.18	1.4	A	1022	1533

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	836	1392	0.000	0	0	0.0	0.0	0.000	A
A1173 W	302	75	0	2278	0.133	301	836	0.0	0.2	2.511	A
SHIIP Access N	0	0	301	1637	0.000	0	0	0.0	0.0	0.000	A
A1173 E	839	210	0	2157	0.389	836	301	0.0	0.7	2.936	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	1000	1279	0.000	0	0	0.0	0.0	0.000	A
A1173 W	360	90	0	2278	0.158	360	1000	0.2	0.3	2.590	A
SHIIP Access N	0	0	360	1598	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1001	250	0	2157	0.464	1000	360	0.7	0.9	3.358	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	1225	1125	0.000	0	0	0.0	0.0	0.000	A
A1173 W	442	110	0	2278	0.194	441	1225	0.3	0.3	2.704	A
SHIIP Access N	0	0	441	1545	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1227	307	0	2157	0.569	1225	441	0.9	1.4	4.161	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	1227	1124	0.000	0	0	0.0	0.0	0.000	A
A1173 W	442	110	0	2278	0.194	442	1227	0.3	0.3	2.704	A
SHIIP Access N	0	0	442	1545	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1227	307	0	2157	0.569	1227	442	1.4	1.4	4.178	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	1003	1277	0.000	0	0	0.0	0.0	0.000	A
A1173 W	360	90	0	2278	0.158	361	1003	0.3	0.3	2.591	A
SHIP Access N	0	0	361	1598	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1001	250	0	2157	0.464	1003	361	1.4	0.9	3.374	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	840	1389	0.000	0	0	0.0	0.0	0.000	A
A1173 W	302	75	0	2278	0.133	302	840	0.3	0.2	2.514	A
SHIP Access N	0	0	302	1636	0.000	0	0	0.0	0.0	0.000	A
A1173 E	839	210	0	2157	0.389	840	302	0.9	0.7	2.953	A

2025 Baseline + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.06	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.06	A

Traffic Demand

Demand Set 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	2025 Baseline + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	24	100.000
A1173 W		ONE HOUR	✓	1208	100.000
SHIIP Access N		ONE HOUR	✓	6	100.000
A1173 E		ONE HOUR	✓	371	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	15	0	9
	A1173 W	10	0	2	1196
	SHIIP Access N	0	4	0	2
	A1173 E	3	367	1	0

Vehicle Mix

HV %s

		To			
From		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
	SHIIP Access S	0	27	0	59
	A1173 W	8	0	9	15
	SHIIP Access N	0	37	0	59
	A1173 E	12	45	27	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.02	2.98	0.0	A	22	33
A1173 W	0.59	4.40	1.6	A	1108	1663
SHIIP Access N	0.01	5.43	0.0	A	6	8
A1173 E	0.19	3.00	0.3	A	340	511

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	18	5	279	1774	0.010	18	10	0.0	0.0	2.816	A
A1173 W	909	227	8	2272	0.400	906	290	0.0	0.8	3.023	A
SHIIP Access N	5	1	912	1237	0.004	4	2	0.0	0.0	4.193	A
A1173 E	279	70	11	2149	0.130	278	906	0.0	0.2	2.780	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	22	5	334	1736	0.012	22	12	0.0	0.0	2.884	A
A1173 W	1086	271	9	2271	0.478	1085	347	0.8	1.0	3.484	A
SHIIP Access N	5	1	1091	1120	0.005	5	3	0.0	0.0	4.639	A
A1173 E	334	83	13	2148	0.155	333	1084	0.2	0.3	2.868	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	26	7	409	1684	0.016	26	14	0.0	0.0	2.982	A
A1173 W	1330	333	11	2270	0.586	1328	425	1.0	1.6	4.382	A
SHIIP Access N	7	2	1335	960	0.007	7	3	0.0	0.0	5.423	A
A1173 E	408	102	15	2146	0.190	408	1327	0.3	0.3	2.995	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	26	7	410	1684	0.016	26	14	0.0	0.0	2.982	A
A1173 W	1330	333	11	2270	0.586	1330	425	1.6	1.6	4.403	A
SHIIP Access N	7	2	1338	958	0.007	7	3	0.0	0.0	5.432	A
A1173 E	408	102	15	2146	0.190	408	1329	0.3	0.3	2.995	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	22	5	335	1735	0.012	22	12	0.0	0.0	2.884	A
A1173 W	1086	271	9	2271	0.478	1088	347	1.6	1.1	3.503	A
SHIP Access N	5	1	1094	1118	0.005	5	3	0.0	0.0	4.650	A
A1173 E	334	83	13	2148	0.155	334	1087	0.3	0.3	2.871	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	18	5	280	1773	0.010	18	10	0.0	0.0	2.817	A
A1173 W	909	227	8	2272	0.400	911	291	1.1	0.8	3.040	A
SHIP Access N	5	1	916	1235	0.004	5	2	0.0	0.0	4.204	A
A1173 E	279	70	11	2149	0.130	280	910	0.3	0.2	2.783	A

2025 Baseline + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.32	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.32	A

Traffic Demand

Demand Set 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	2025 Baseline + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	180	100.000
A1173 W		ONE HOUR	✓	669	100.000
SHIIP Access N		ONE HOUR	✓	35	100.000
A1173 E		ONE HOUR	✓	1297	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	143	0	37
	A1173 W	102	0	24	543
	SHIIP Access N	0	28	0	7
	A1173 E	23	1269	5	0

Vehicle Mix

HV %s

From	To			
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	9	0	21
A1173 W	36	0	37	42
SHIIP Access N	0	12	0	45
A1173 E	39	11	83	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.20	5.11	0.3	A	165	248
A1173 W	0.33	3.37	0.7	A	614	921
SHIIP Access N	0.03	3.24	0.0	A	32	48
A1173 E	0.70	6.42	2.5	A	1190	1785

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	136	34	976	1295	0.105	135	94	0.0	0.1	3.450	A
A1173 W	504	126	31	2254	0.223	502	1080	0.0	0.4	2.891	A
SHIIP Access N	26	7	512	1499	0.018	26	22	0.0	0.0	2.867	A
A1173 E	976	244	98	2086	0.468	973	440	0.0	1.0	3.594	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	162	40	1169	1163	0.139	162	112	0.1	0.2	3.998	A
A1173 W	601	150	38	2249	0.267	601	1293	0.4	0.5	3.076	A
SHIIP Access N	31	8	613	1433	0.022	31	26	0.0	0.0	3.013	A
A1173 E	1166	291	117	2073	0.563	1164	527	1.0	1.4	4.412	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	198	50	1429	984	0.201	198	137	0.2	0.3	5.089	A
A1173 W	737	184	46	2243	0.328	736	1581	0.5	0.7	3.362	A
SHIIP Access N	39	10	750	1343	0.029	39	32	0.0	0.0	3.237	A
A1173 E	1428	357	143	2054	0.695	1424	646	1.4	2.5	6.334	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	198	50	1433	982	0.202	198	138	0.3	0.3	5.112	A
A1173 W	737	184	46	2243	0.328	737	1585	0.7	0.7	3.365	A
SHIIP Access N	39	10	751	1343	0.029	39	32	0.0	0.0	3.238	A
A1173 E	1428	357	143	2053	0.695	1428	646	2.5	2.5	6.418	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	162	40	1175	1159	0.140	162	113	0.3	0.2	4.019	A
A1173 W	601	150	38	2249	0.267	602	1299	0.7	0.5	3.081	A
SHIP Access N	31	8	614	1432	0.022	31	26	0.0	0.0	3.017	A
A1173 E	1166	291	117	2072	0.563	1170	528	2.5	1.5	4.474	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	136	34	982	1291	0.105	136	94	0.2	0.1	3.465	A
A1173 W	504	126	32	2254	0.223	504	1086	0.5	0.4	2.900	A
SHIP Access N	26	7	514	1498	0.018	26	22	0.0	0.0	2.872	A
A1173 E	976	244	98	2086	0.468	978	442	1.5	1.0	3.630	A

2025 Baseline + Committed + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.02	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.02	A

Traffic Demand

Demand Set 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	2025 Baseline + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	24	100.000
A1173 W		ONE HOUR	✓	1372	100.000
SHIIP Access N		ONE HOUR	✓	6	100.000
A1173 E		ONE HOUR	✓	467	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	15	0	9
	A1173 W	10	0	2	1360
	SHIIP Access N	0	4	0	2
	A1173 E	3	463	1	0

Vehicle Mix

HV %s

From	To			
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	27	0	59
A1173 W	8	0	9	19
SHIIP Access N	0	37	0	59
A1173 E	12	49	27	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.02	3.12	0.0	A	22	33
A1173 W	0.67	5.64	2.3	A	1259	1888
SHIIP Access N	0.01	6.20	0.0	A	6	8
A1173 E	0.24	3.28	0.5	A	429	643

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	18	5	351	1724	0.010	18	10	0.0	0.0	2.897	A
A1173 W	1033	258	8	2272	0.455	1029	362	0.0	1.0	3.431	A
SHIIP Access N	5	1	1034	1157	0.004	4	2	0.0	0.0	4.485	A
A1173 E	352	88	10	2149	0.164	350	1028	0.0	0.3	2.973	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	22	5	420	1677	0.013	22	12	0.0	0.0	2.987	A
A1173 W	1233	308	9	2271	0.543	1232	433	1.0	1.4	4.111	A
SHIIP Access N	5	1	1238	1024	0.005	5	3	0.0	0.0	5.077	A
A1173 E	420	105	13	2148	0.195	420	1231	0.3	0.4	3.095	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	26	7	515	1612	0.016	26	14	0.0	0.0	3.118	A
A1173 W	1511	378	11	2270	0.666	1507	530	1.4	2.3	5.585	A
SHIIP Access N	7	2	1515	843	0.008	7	3	0.0	0.0	6.184	A
A1173 E	514	129	15	2146	0.240	514	1506	0.4	0.5	3.278	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	26	7	515	1612	0.016	26	14	0.0	0.0	3.118	A
A1173 W	1511	378	11	2270	0.666	1511	531	2.3	2.3	5.636	A
SHIIP Access N	7	2	1518	840	0.008	7	3	0.0	0.0	6.202	A
A1173 E	514	129	15	2146	0.240	514	1509	0.5	0.5	3.278	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	22	5	421	1676	0.013	22	12	0.0	0.0	2.990	A
A1173 W	1233	308	9	2271	0.543	1237	434	2.3	1.4	4.155	A
SHIP Access N	5	1	1243	1020	0.005	5	3	0.0	0.0	5.097	A
A1173 E	420	105	13	2148	0.195	420	1236	0.5	0.4	3.097	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	18	5	353	1723	0.010	18	10	0.0	0.0	2.901	A
A1173 W	1033	258	8	2272	0.455	1035	363	1.4	1.0	3.465	A
SHIP Access N	5	1	1040	1153	0.004	5	2	0.0	0.0	4.502	A
A1173 E	352	88	11	2149	0.164	352	1034	0.4	0.3	2.978	A

2025 Baseline + Committed + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.83	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.83	A

Traffic Demand

Demand Set 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	2025 Baseline + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	180	100.000
A1173 W		ONE HOUR	✓	888	100.000
SHIIP Access N		ONE HOUR	✓	35	100.000
A1173 E		ONE HOUR	✓	1429	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	143	0	37
	A1173 W	102	0	24	762
	SHIIP Access N	0	28	0	7
	A1173 E	23	1401	5	0

Vehicle Mix

HV %s

From	To			
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	9	0	21
A1173 W	36	0	37	52
SHIIP Access N	0	12	0	45
A1173 E	39	15	83	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.22	5.86	0.3	A	165	248
A1173 W	0.44	4.25	1.2	A	815	1222
SHIIP Access N	0.03	3.68	0.0	A	32	48
A1173 E	0.77	8.64	3.7	A	1311	1967

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	136	34	1075	1228	0.110	135	94	0.0	0.1	3.663	A
A1173 W	669	167	31	2254	0.297	666	1178	0.0	0.6	3.379	A
SHIIP Access N	26	7	676	1392	0.019	26	22	0.0	0.0	3.093	A
A1173 E	1076	269	98	2086	0.516	1071	605	0.0	1.2	4.074	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	162	40	1287	1082	0.150	162	112	0.1	0.2	4.349	A
A1173 W	798	200	38	2249	0.355	798	1410	0.6	0.8	3.705	A
SHIIP Access N	31	8	809	1304	0.024	31	26	0.0	0.0	3.317	A
A1173 E	1285	321	117	2073	0.620	1282	724	1.2	1.9	5.242	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	198	50	1572	887	0.224	198	137	0.2	0.3	5.810	A
A1173 W	978	244	46	2243	0.436	976	1723	0.8	1.1	4.245	A
SHIIP Access N	39	10	991	1186	0.033	38	32	0.0	0.0	3.681	A
A1173 E	1573	393	143	2054	0.766	1566	886	1.9	3.6	8.407	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	198	50	1579	882	0.225	198	138	0.3	0.3	5.856	A
A1173 W	978	244	46	2243	0.436	978	1731	1.1	1.2	4.254	A
SHIIP Access N	39	10	992	1185	0.033	39	32	0.0	0.0	3.684	A
A1173 E	1573	393	143	2053	0.766	1573	887	3.6	3.7	8.639	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	162	40	1296	1076	0.150	162	113	0.3	0.2	4.388	A
A1173 W	798	200	38	2249	0.355	800	1421	1.2	0.8	3.718	A
SHIP Access N	31	8	811	1303	0.024	32	26	0.0	0.0	3.321	A
A1173 E	1285	321	117	2072	0.620	1292	726	3.7	1.9	5.375	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	136	34	1082	1223	0.111	136	94	0.2	0.1	3.688	A
A1173 W	669	167	32	2254	0.297	669	1186	0.8	0.6	3.400	A
SHIP Access N	26	7	679	1390	0.019	26	22	0.0	0.0	3.098	A
A1173 E	1076	269	98	2086	0.516	1079	608	1.9	1.2	4.137	A

2032 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.77	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.77	A

Traffic Demand

Demand Set 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	2032 Baseline	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	0	100.000
A1173 W		ONE HOUR	✓	1174	100.000
SHIIP Access N		ONE HOUR	✓	0	100.000
A1173 E		ONE HOUR	✓	324	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	0	0	0
	A1173 W	0	0	0	1174
	SHIIP Access N	0	0	0	0
	A1173 E	0	324	0	0

Vehicle Mix

HV %s

From	To			
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	0	0	0
A1173 W	0	0	0	10
SHIIP Access N	0	0	0	0
A1173 E	0	43	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.00	0.00	0.0	A	0	0
A1173 W	0.57	4.02	1.4	A	1077	1616
SHIIP Access N	0.00	0.00	0.0	A	0	0
A1173 E	0.17	2.86	0.3	A	297	446

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	243	1798	0.000	0	0	0.0	0.0	0.000	A
A1173 W	884	221	0	2278	0.388	881	243	0.0	0.7	2.828	A
SHIIP Access N	0	0	881	1257	0.000	0	0	0.0	0.0	0.000	A
A1173 E	244	61	0	2157	0.113	243	881	0.0	0.2	2.690	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	291	1765	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1055	264	0	2278	0.463	1054	291	0.7	0.9	3.233	A
SHIIP Access N	0	0	1054	1144	0.000	0	0	0.0	0.0	0.000	A
A1173 E	291	73	0	2157	0.135	291	1054	0.2	0.2	2.758	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	356	1721	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1293	323	0	2278	0.567	1291	356	0.9	1.4	4.003	A
SHIIP Access N	0	0	1291	989	0.000	0	0	0.0	0.0	0.000	A
A1173 E	357	89	0	2157	0.165	356	1291	0.2	0.3	2.858	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	357	1720	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1293	323	0	2278	0.567	1293	357	1.4	1.4	4.018	A
SHIIP Access N	0	0	1293	988	0.000	0	0	0.0	0.0	0.000	A
A1173 E	357	89	0	2157	0.165	357	1293	0.3	0.3	2.858	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	292	1765	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1055	264	0	2278	0.463	1057	292	1.4	1.0	3.248	A
SHIP Access N	0	0	1057	1142	0.000	0	0	0.0	0.0	0.000	A
A1173 E	291	73	0	2157	0.135	292	1057	0.3	0.2	2.761	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	244	1798	0.000	0	0	0.0	0.0	0.000	A
A1173 W	884	221	0	2278	0.388	885	244	1.0	0.7	2.846	A
SHIP Access N	0	0	885	1255	0.000	0	0	0.0	0.0	0.000	A
A1173 E	244	61	0	2157	0.113	244	885	0.2	0.2	2.690	A

2032 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.95	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.95	A

Traffic Demand

Demand Set 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	2032 Baseline	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	0	100.000
A1173 W		ONE HOUR	✓	416	100.000
SHIIP Access N		ONE HOUR	✓	0	100.000
A1173 E		ONE HOUR	✓	1156	100.000

Origin-Destination Data

Demand (PCU/hr)

	From	To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
	SHIIP Access S	0	0	0	0
	A1173 W	0	0	0	416
	SHIIP Access N	0	0	0	0
	A1173 E	0	1156	0	0

Vehicle Mix

HV %s

From	To			
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	0	0	0
A1173 W	0	0	0	38
SHIIP Access N	0	0	0	0
A1173 E	0	8	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.00	0.00	0.0	A	0	0
A1173 W	0.20	2.73	0.3	A	382	573
SHIIP Access N	0.00	0.00	0.0	A	0	0
A1173 E	0.59	4.40	1.5	A	1061	1591

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	867	1370	0.000	0	0	0.0	0.0	0.000	A
A1173 W	313	78	0	2278	0.137	312	867	0.0	0.2	2.526	A
SHIIP Access N	0	0	312	1630	0.000	0	0	0.0	0.0	0.000	A
A1173 E	870	218	0	2157	0.403	867	312	0.0	0.7	3.009	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	1038	1253	0.000	0	0	0.0	0.0	0.000	A
A1173 W	374	93	0	2278	0.164	374	1038	0.2	0.3	2.608	A
SHIIP Access N	0	0	374	1589	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1039	260	0	2157	0.482	1038	374	0.7	1.0	3.471	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	1271	1093	0.000	0	0	0.0	0.0	0.000	A
A1173 W	458	115	0	2278	0.201	458	1271	0.3	0.3	2.729	A
SHIIP Access N	0	0	458	1534	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1273	318	0	2157	0.590	1271	458	1.0	1.5	4.376	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	1273	1092	0.000	0	0	0.0	0.0	0.000	A
A1173 W	458	115	0	2278	0.201	458	1273	0.3	0.3	2.729	A
SHIIP Access N	0	0	458	1534	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1273	318	0	2157	0.590	1273	458	1.5	1.5	4.396	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	1041	1251	0.000	0	0	0.0	0.0	0.000	A
A1173 W	374	93	0	2278	0.164	374	1041	0.3	0.3	2.609	A
SHIP Access N	0	0	374	1589	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1039	260	0	2157	0.482	1041	374	1.5	1.0	3.493	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	871	1367	0.000	0	0	0.0	0.0	0.000	A
A1173 W	313	78	0	2278	0.137	313	871	0.3	0.2	2.530	A
SHIP Access N	0	0	313	1629	0.000	0	0	0.0	0.0	0.000	A
A1173 E	870	218	0	2157	0.403	871	313	1.0	0.7	3.028	A

2032 Baseline + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.83	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.83	A

Traffic Demand

Demand Set 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	2032 Baseline + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	102	100.000
A1173 W		ONE HOUR	✓	1588	100.000
SHIIP Access N		ONE HOUR	✓	22	100.000
A1173 E		ONE HOUR	✓	547	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	75	0	27
	A1173 W	138	0	25	1425
	SHIIP Access N	0	16	0	6
	A1173 E	28	514	5	0

Vehicle Mix

HV %s

		To			
From		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
	SHIIP Access S	0	27	0	59
	A1173 W	8	0	9	15
	SHIIP Access N	0	37	0	59
	A1173 E	12	45	27	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.07	3.33	0.1	A	94	140
A1173 W	0.78	8.16	3.9	A	1457	2186
SHIIP Access N	0.04	7.72	0.1	A	20	30
A1173 E	0.30	3.58	0.6	A	502	753

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	77	19	401	1690	0.045	77	124	0.0	0.1	2.993	A
A1173 W	1196	299	24	2260	0.529	1190	454	0.0	1.3	3.828	A
SHIIP Access N	17	4	1192	1054	0.016	16	22	0.0	0.0	4.941	A
A1173 E	412	103	115	2074	0.199	410	1093	0.0	0.4	3.085	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	92	23	481	1635	0.056	92	149	0.1	0.1	3.127	A
A1173 W	1428	357	29	2256	0.633	1425	543	1.3	1.9	4.932	A
SHIIP Access N	20	5	1427	900	0.022	20	27	0.0	0.0	5.821	A
A1173 E	492	123	138	2057	0.239	491	1308	0.4	0.4	3.280	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	112	28	588	1561	0.072	112	182	0.1	0.1	3.331	A
A1173 W	1748	437	35	2251	0.777	1741	665	1.9	3.8	7.941	A
SHIIP Access N	24	6	1743	693	0.035	24	33	0.0	0.1	7.664	A
A1173 E	602	151	169	2035	0.296	602	1598	0.4	0.6	3.581	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	112	28	589	1561	0.072	112	183	0.1	0.1	3.332	A
A1173 W	1748	437	35	2251	0.777	1748	666	3.8	3.9	8.160	A
SHIIP Access N	24	6	1750	688	0.035	24	33	0.1	0.1	7.719	A
A1173 E	602	151	170	2034	0.296	602	1605	0.6	0.6	3.585	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	92	23	482	1635	0.056	92	150	0.1	0.1	3.129	A
A1173 W	1428	357	29	2256	0.633	1435	545	3.9	2.0	5.056	A
SHIP Access N	20	5	1437	893	0.022	20	27	0.1	0.0	5.869	A
A1173 E	492	123	139	2056	0.239	492	1318	0.6	0.5	3.284	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	77	19	403	1689	0.045	77	125	0.1	0.1	2.995	A
A1173 W	1196	299	24	2260	0.529	1198	456	2.0	1.3	3.885	A
SHIP Access N	17	4	1200	1049	0.016	17	23	0.0	0.0	4.968	A
A1173 E	412	103	116	2073	0.199	412	1100	0.5	0.4	3.094	A

2032 Baseline + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.66	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.66	A

Traffic Demand

Demand Set 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	2032 Baseline + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	180	100.000
A1173 W		ONE HOUR	✓	684	100.000
SHIIP Access N		ONE HOUR	✓	35	100.000
A1173 E		ONE HOUR	✓	1339	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	143	0	37
	A1173 W	102	0	24	558
	SHIIP Access N	0	28	0	7
	A1173 E	23	1311	5	0

Vehicle Mix

HV %s

		To			
From		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
	SHIIP Access S	0	9	0	21
	A1173 W	36	0	37	42
	SHIIP Access N	0	12	0	45
	A1173 E	39	11	83	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.21	5.33	0.3	A	165	248
A1173 W	0.34	3.40	0.7	A	628	941
SHIIP Access N	0.03	3.27	0.0	A	32	48
A1173 E	0.72	6.93	2.8	A	1229	1843

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	136	34	1008	1274	0.106	135	94	0.0	0.1	3.515	A
A1173 W	515	129	31	2254	0.228	513	1111	0.0	0.4	2.911	A
SHIIP Access N	26	7	523	1492	0.018	26	22	0.0	0.0	2.882	A
A1173 E	1008	252	98	2086	0.483	1004	452	0.0	1.0	3.696	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	162	40	1206	1137	0.142	162	112	0.1	0.2	4.103	A
A1173 W	615	154	38	2249	0.273	614	1330	0.4	0.5	3.102	A
SHIIP Access N	31	8	626	1424	0.022	31	26	0.0	0.0	3.032	A
A1173 E	1204	301	117	2073	0.581	1202	541	1.0	1.5	4.602	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	198	50	1475	953	0.208	198	137	0.2	0.3	5.300	A
A1173 W	753	188	46	2243	0.336	752	1626	0.5	0.7	3.400	A
SHIIP Access N	39	10	767	1332	0.029	39	32	0.0	0.0	3.264	A
A1173 E	1474	369	143	2054	0.718	1469	662	1.5	2.8	6.814	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	198	50	1480	950	0.209	198	138	0.3	0.3	5.327	A
A1173 W	753	188	46	2243	0.336	753	1632	0.7	0.7	3.403	A
SHIIP Access N	39	10	767	1332	0.029	39	32	0.0	0.0	3.265	A
A1173 E	1474	369	143	2053	0.718	1474	663	2.8	2.8	6.927	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	162	40	1213	1133	0.143	162	113	0.3	0.2	4.130	A
A1173 W	615	154	38	2249	0.273	616	1337	0.7	0.5	3.105	A
SHIP Access N	31	8	627	1423	0.022	31	26	0.0	0.0	3.036	A
A1173 E	1204	301	117	2072	0.581	1209	542	2.8	1.6	4.675	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	136	34	1014	1270	0.107	136	94	0.2	0.1	3.535	A
A1173 W	515	129	32	2254	0.228	515	1118	0.5	0.4	2.917	A
SHIP Access N	26	7	525	1490	0.018	26	22	0.0	0.0	2.885	A
A1173 E	1008	252	98	2086	0.483	1010	454	1.6	1.1	3.738	A

2032 Baseline + Committed + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	10.26	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.26	B

Traffic Demand

Demand Set 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	2032 Baseline + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	102	100.000
A1173 W		ONE HOUR	✓	1751	100.000
SHIIP Access N		ONE HOUR	✓	22	100.000
A1173 E		ONE HOUR	✓	642	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	75	0	27
	A1173 W	138	0	25	1588
	SHIIP Access N	0	16	0	6
	A1173 E	28	609	5	0

Vehicle Mix

HV %s

		To			
From		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
	SHIIP Access S	0	27	0	59
	A1173 W	8	0	9	19
	SHIIP Access N	0	37	0	59
	A1173 E	12	49	27	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.08	3.51	0.1	A	94	140
A1173 W	0.86	12.96	6.7	B	1607	2410
SHIIP Access N	0.04	9.37	0.1	A	20	30
A1173 E	0.35	3.98	0.8	A	589	884

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	77	19	473	1641	0.047	77	124	0.0	0.1	3.086	A
A1173 W	1318	330	24	2260	0.583	1312	525	0.0	1.6	4.447	A
SHIIP Access N	17	4	1313	974	0.017	16	22	0.0	0.0	5.350	A
A1173 E	483	121	115	2074	0.233	482	1214	0.0	0.4	3.314	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	92	23	566	1577	0.058	92	149	0.1	0.1	3.250	A
A1173 W	1574	394	29	2256	0.698	1570	629	1.6	2.7	6.148	A
SHIIP Access N	20	5	1572	805	0.025	20	27	0.0	0.0	6.525	A
A1173 E	577	144	138	2057	0.281	577	1453	0.4	0.6	3.567	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	112	28	693	1490	0.075	112	182	0.1	0.1	3.504	A
A1173 W	1928	482	35	2251	0.856	1913	770	2.7	6.4	12.026	B
SHIIP Access N	24	6	1915	580	0.042	24	33	0.0	0.1	9.216	A
A1173 E	707	177	168	2035	0.347	706	1771	0.6	0.8	3.970	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	112	28	694	1489	0.075	112	183	0.1	0.1	3.506	A
A1173 W	1928	482	35	2251	0.856	1927	771	6.4	6.7	12.964	B
SHIIP Access N	24	6	1929	571	0.042	24	33	0.1	0.1	9.369	A
A1173 E	707	177	169	2034	0.347	707	1784	0.8	0.8	3.977	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	92	23	567	1576	0.058	92	151	0.1	0.1	3.255	A
A1173 W	1574	394	29	2256	0.698	1590	630	6.7	2.8	6.512	A
SHIP Access N	20	5	1591	792	0.025	20	27	0.1	0.0	6.638	A
A1173 E	577	144	140	2056	0.281	578	1472	0.8	0.6	3.574	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	77	19	475	1639	0.047	77	125	0.1	0.1	3.092	A
A1173 W	1318	330	24	2260	0.583	1323	528	2.8	1.7	4.552	A
SHIP Access N	17	4	1324	967	0.017	17	23	0.0	0.0	5.393	A
A1173 E	483	121	116	2073	0.233	484	1224	0.6	0.4	3.323	A

2032 Baseline + Committed + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.41	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.41	A

Traffic Demand

Demand Set 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	2032 Baseline + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	180	100.000
A1173 W		ONE HOUR	✓	903	100.000
SHIIP Access N		ONE HOUR	✓	35	100.000
A1173 E		ONE HOUR	✓	1471	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	143	0	37
	A1173 W	102	0	24	777
	SHIIP Access N	0	28	0	7
	A1173 E	23	1443	5	0

Vehicle Mix

HV %s

From	To			
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	9	0	21
A1173 W	36	0	37	52
SHIIP Access N	0	12	0	45
A1173 E	39	15	83	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.23	6.14	0.3	A	165	248
A1173 W	0.44	4.31	1.2	A	829	1243
SHIIP Access N	0.03	3.72	0.0	A	32	48
A1173 E	0.79	9.55	4.2	A	1350	2025

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	136	34	1106	1206	0.112	135	94	0.0	0.1	3.737	A
A1173 W	680	170	31	2254	0.302	677	1210	0.0	0.6	3.408	A
SHIIP Access N	26	7	687	1384	0.019	26	22	0.0	0.0	3.109	A
A1173 E	1107	277	98	2086	0.531	1102	616	0.0	1.3	4.202	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	162	40	1324	1057	0.153	162	112	0.1	0.2	4.474	A
A1173 W	812	203	38	2249	0.361	811	1448	0.6	0.8	3.741	A
SHIIP Access N	31	8	823	1296	0.024	31	26	0.0	0.0	3.340	A
A1173 E	1322	331	117	2073	0.638	1320	737	1.3	2.0	5.499	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	198	50	1617	856	0.232	198	137	0.2	0.3	6.080	A
A1173 W	994	249	46	2243	0.443	993	1768	0.8	1.2	4.302	A
SHIIP Access N	39	10	1007	1175	0.033	38	32	0.0	0.0	3.716	A
A1173 E	1620	405	143	2054	0.789	1611	903	2.0	4.1	9.219	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	198	50	1625	850	0.233	198	138	0.3	0.3	6.141	A
A1173 W	994	249	46	2243	0.443	994	1777	1.2	1.2	4.311	A
SHIIP Access N	39	10	1009	1174	0.033	39	32	0.0	0.0	3.719	A
A1173 E	1620	405	143	2053	0.789	1619	904	4.1	4.2	9.549	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	162	40	1335	1049	0.154	162	113	0.3	0.2	4.522	A
A1173 W	812	203	38	2249	0.361	813	1460	1.2	0.9	3.754	A
SHIP Access N	31	8	825	1294	0.024	32	26	0.0	0.0	3.345	A
A1173 E	1322	331	117	2072	0.638	1331	739	4.2	2.1	5.668	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	136	34	1114	1201	0.113	136	94	0.2	0.1	3.764	A
A1173 W	680	170	32	2254	0.302	681	1218	0.9	0.6	3.426	A
SHIP Access N	26	7	690	1382	0.019	26	22	0.0	0.0	3.117	A
A1173 E	1107	277	98	2086	0.531	1110	619	2.1	1.3	4.274	A

Appendix TN2 I

A1173/ SHIIP Stena AM Junction Assessment Results

<h1>Junctions 10</h1>
<h2>ARCADY 10 - Roundabout Module</h2>
Version: 10.0.4.1693 © Copyright TRL Software Limited, 2021
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Filename: A1173-SHIP.j10
Path: P:\23000's\23325\Junction Assessment\1 Base Assessment - Stena AM
Report generation date: 23/10/2023 12:13:46

- »2021 Baseline, AM
- »2021 Baseline, PM
- »2025 Baseline, AM
- »2025 Baseline, PM
- »2025 Baseline + Committed, AM
- »2025 Baseline + Committed, PM
- »2025 Baseline + Committed + Development, AM
- »2025 Baseline + Committed + Development, PM
- »2032 Baseline, AM
- »2032 Baseline, PM
- »2032 Baseline + Committed, AM
- »2032 Baseline + Committed, PM
- »2032 Baseline + Committed + Development, AM
- »2032 Baseline + Committed + Development, PM

Summary of junction performance

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Baseline						
SHIIP Access S	0.0	0.00	0.00	0.0	0.00	0.00
A1173 W	1.2	3.71	0.53	0.3	2.69	0.19
SHIIP Access N	0.0	0.00	0.00	0.0	0.00	0.00
A1173 E	0.3	2.82	0.15	1.3	4.04	0.55
2025 Baseline						
SHIIP Access S	0.0	0.00	0.00	0.0	0.00	0.00
A1173 W	1.3	3.83	0.55	0.3	2.70	0.19
SHIIP Access N	0.0	0.00	0.00	0.0	0.00	0.00
A1173 E	0.3	2.84	0.16	1.4	4.18	0.57
2025 Baseline + Committed						
SHIIP Access S	0.0	2.98	0.02	0.3	5.11	0.20
A1173 W	1.6	4.40	0.59	0.7	3.37	0.33
SHIIP Access N	0.0	5.43	0.01	0.0	3.24	0.03
A1173 E	0.3	3.00	0.19	2.5	6.42	0.70
2025 Baseline + Committed + Development						
SHIIP Access S	0.0	3.09	0.02	0.3	5.86	0.22
A1173 W	1.8	4.71	0.61	1.2	4.25	0.44
SHIIP Access N	0.0	5.64	0.01	0.0	3.68	0.03
A1173 E	0.4	3.19	0.23	3.7	8.64	0.77
2032 Baseline						
SHIIP Access S	0.0	0.00	0.00	0.0	0.00	0.00
A1173 W	1.4	4.02	0.57	0.3	2.73	0.20
SHIIP Access N	0.0	0.00	0.00	0.0	0.00	0.00
A1173 E	0.3	2.86	0.17	1.5	4.40	0.59
2032 Baseline + Committed						
SHIIP Access S	0.1	3.33	0.07	0.3	5.33	0.21
A1173 W	3.9	8.16	0.78	0.7	3.40	0.34
SHIIP Access N	0.1	7.72	0.04	0.0	3.27	0.03
A1173 E	0.6	3.58	0.30	2.8	6.93	0.72
2032 Baseline + Committed + Development						
SHIIP Access S	0.1	3.46	0.07	0.3	6.14	0.23
A1173 W	4.5	9.18	0.80	1.2	4.31	0.44
SHIIP Access N	0.1	8.14	0.04	0.0	3.72	0.03
A1173 E	0.7	3.85	0.34	4.2	9.55	0.79

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 Av. delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	02/08/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\arcady
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

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	2021 Baseline	AM	ONE HOUR	06:45	08:15	15	✓
D2	2021 Baseline	PM	ONE HOUR	15:45	17:15	15	✓
D3	2025 Baseline	AM	ONE HOUR	06:45	08:15	15	✓
D4	2025 Baseline	PM	ONE HOUR	15:45	17:15	15	✓
D5	2025 Baseline + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D6	2025 Baseline + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D7	2025 Baseline + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D8	2025 Baseline + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓
D9	2032 Baseline	AM	ONE HOUR	06:45	08:15	15	✓
D10	2032 Baseline	PM	ONE HOUR	15:45	17:15	15	✓
D11	2032 Baseline + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D12	2032 Baseline + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D13	2032 Baseline + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D14	2032 Baseline + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2021 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.52	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.52	A

Arms

Arms

Arm	Name	Description	No give-way line
1	SHIIP Access S		
2	A1173 W		
3	SHIIP Access N		
4	A1173 E		

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
SHIIP Access S	3.70	7.75	26.5	27.8	44.0	31.0		
A1173 W	3.60	7.80	99.6	29.6	44.0	26.0		
SHIIP Access N	3.30	7.60	25.9	19.2	44.0	32.0		
A1173 E	3.90	7.80	94.8	17.6	40.1	37.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
SHIIP Access S	0.686	1965
A1173 W	0.753	2278
SHIIP Access N	0.655	1834
A1173 E	0.724	2157

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	2021 Baseline	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	0	100.000
A1173 W		ONE HOUR	✓	1099	100.000
SHIIP Access N		ONE HOUR	✓	0	100.000
A1173 E		ONE HOUR	✓	303	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	0	0	0
	A1173 W	0	0	0	1099
	SHIIP Access N	0	0	0	0
	A1173 E	0	303	0	0

Vehicle Mix

HV %s

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	0	0	0
	A1173 W	0	0	0	10
	SHIIP Access N	0	0	0	0
	A1173 E	0	43	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.00	0.00	0.0	A	0	0
A1173 W	0.53	3.71	1.2	A	1008	1513
SHIIP Access N	0.00	0.00	0.0	A	0	0
A1173 E	0.15	2.82	0.3	A	278	417

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	227	1809	0.000	0	0	0.0	0.0	0.000	A
A1173 W	827	207	0	2278	0.363	825	227	0.0	0.6	2.721	A
SHIIP Access N	0	0	825	1294	0.000	0	0	0.0	0.0	0.000	A
A1173 E	228	57	0	2157	0.106	227	825	0.0	0.2	2.668	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	272	1778	0.000	0	0	0.0	0.0	0.000	A
A1173 W	988	247	0	2278	0.434	987	272	0.6	0.8	3.066	A
SHIIP Access N	0	0	987	1188	0.000	0	0	0.0	0.0	0.000	A
A1173 E	272	68	0	2157	0.126	272	987	0.2	0.2	2.731	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	333	1736	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1210	303	0	2278	0.531	1208	333	0.8	1.2	3.698	A
SHIIP Access N	0	0	1208	1043	0.000	0	0	0.0	0.0	0.000	A
A1173 E	334	83	0	2157	0.155	333	1208	0.2	0.3	2.822	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	334	1736	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1210	303	0	2278	0.531	1210	334	1.2	1.2	3.707	A
SHIIP Access N	0	0	1210	1042	0.000	0	0	0.0	0.0	0.000	A
A1173 E	334	83	0	2157	0.155	334	1210	0.3	0.3	2.822	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	273	1778	0.000	0	0	0.0	0.0	0.000	A
A1173 W	988	247	0	2278	0.434	990	273	1.2	0.8	3.079	A
SHIIP Access N	0	0	990	1186	0.000	0	0	0.0	0.0	0.000	A
A1173 E	272	68	0	2157	0.126	273	990	0.3	0.2	2.731	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	228	1809	0.000	0	0	0.0	0.0	0.000	A
A1173 W	827	207	0	2278	0.363	828	228	0.8	0.6	2.734	A
SHIIP Access N	0	0	828	1292	0.000	0	0	0.0	0.0	0.000	A
A1173 E	228	57	0	2157	0.106	228	828	0.2	0.2	2.670	A

2021 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.68	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.68	A

Traffic Demand

Demand Set 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	2021 Baseline	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	0	100.000
A1173 W		ONE HOUR	✓	391	100.000
SHIIP Access N		ONE HOUR	✓	0	100.000
A1173 E		ONE HOUR	✓	1086	100.000

Origin-Destination Data

Demand (PCU/hr)

	From	To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
	SHIIP Access S	0	0	0	0
	A1173 W	0	0	0	391
	SHIIP Access N	0	0	0	0
	A1173 E	0	1086	0	0

Vehicle Mix

HV %s

		To			
From		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
	SHIIP Access S	0	0	0	0
	A1173 W	0	0	0	38
	SHIIP Access N	0	0	0	0
	A1173 E	0	8	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.00	0.00	0.0	A	0	0
A1173 W	0.19	2.69	0.3	A	359	538
SHIIP Access N	0.00	0.00	0.0	A	0	0
A1173 E	0.55	4.04	1.3	A	997	1495

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	815	1406	0.000	0	0	0.0	0.0	0.000	A
A1173 W	294	74	0	2278	0.129	294	815	0.0	0.2	2.502	A
SHIIP Access N	0	0	294	1642	0.000	0	0	0.0	0.0	0.000	A
A1173 E	818	204	0	2157	0.379	815	294	0.0	0.7	2.893	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	975	1296	0.000	0	0	0.0	0.0	0.000	A
A1173 W	352	88	0	2278	0.154	351	975	0.2	0.3	2.578	A
SHIIP Access N	0	0	351	1604	0.000	0	0	0.0	0.0	0.000	A
A1173 E	976	244	0	2157	0.453	975	351	0.7	0.9	3.286	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	1194	1146	0.000	0	0	0.0	0.0	0.000	A
A1173 W	430	108	0	2278	0.189	430	1194	0.3	0.3	2.688	A
SHIIP Access N	0	0	430	1552	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1196	299	0	2157	0.554	1194	430	0.9	1.3	4.029	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	1196	1145	0.000	0	0	0.0	0.0	0.000	A
A1173 W	430	108	0	2278	0.189	430	1196	0.3	0.3	2.688	A
SHIIP Access N	0	0	430	1552	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1196	299	0	2157	0.554	1196	430	1.3	1.3	4.044	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	978	1294	0.000	0	0	0.0	0.0	0.000	A
A1173 W	352	88	0	2278	0.154	352	978	0.3	0.3	2.581	A
SHIP Access N	0	0	352	1604	0.000	0	0	0.0	0.0	0.000	A
A1173 E	976	244	0	2157	0.453	978	352	1.3	0.9	3.304	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	819	1404	0.000	0	0	0.0	0.0	0.000	A
A1173 W	294	74	0	2278	0.129	295	819	0.3	0.2	2.506	A
SHIP Access N	0	0	295	1641	0.000	0	0	0.0	0.0	0.000	A
A1173 E	818	204	0	2157	0.379	819	295	0.9	0.7	2.906	A

2025 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.61	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.61	A

Traffic Demand

Demand Set 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	2025 Baseline	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	0	100.000
A1173 W		ONE HOUR	✓	1129	100.000
SHIIP Access N		ONE HOUR	✓	0	100.000
A1173 E		ONE HOUR	✓	311	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	0	0	0
	A1173 W	0	0	0	1129
	SHIIP Access N	0	0	0	0
	A1173 E	0	311	0	0

Vehicle Mix

HV %s

From	To			
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	0	0	0
A1173 W	0	0	0	10
SHIIP Access N	0	0	0	0
A1173 E	0	43	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.00	0.00	0.0	A	0	0
A1173 W	0.55	3.83	1.3	A	1036	1554
SHIIP Access N	0.00	0.00	0.0	A	0	0
A1173 E	0.16	2.84	0.3	A	285	428

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	233	1805	0.000	0	0	0.0	0.0	0.000	A
A1173 W	850	212	0	2278	0.373	847	233	0.0	0.7	2.764	A
SHIIP Access N	0	0	847	1279	0.000	0	0	0.0	0.0	0.000	A
A1173 E	234	59	0	2157	0.109	233	847	0.0	0.2	2.676	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	279	1773	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1015	254	0	2278	0.446	1014	279	0.7	0.9	3.132	A
SHIIP Access N	0	0	1014	1170	0.000	0	0	0.0	0.0	0.000	A
A1173 E	280	70	0	2157	0.130	279	1014	0.2	0.2	2.741	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	342	1730	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1243	311	0	2278	0.546	1241	342	0.9	1.3	3.813	A
SHIIP Access N	0	0	1241	1021	0.000	0	0	0.0	0.0	0.000	A
A1173 E	342	86	0	2157	0.159	342	1241	0.2	0.3	2.836	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	342	1730	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1243	311	0	2278	0.546	1243	342	1.3	1.3	3.825	A
SHIIP Access N	0	0	1243	1020	0.000	0	0	0.0	0.0	0.000	A
A1173 E	342	86	0	2157	0.159	342	1243	0.3	0.3	2.836	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	280	1773	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1015	254	0	2278	0.446	1017	280	1.3	0.9	3.145	A
SHIP Access N	0	0	1017	1169	0.000	0	0	0.0	0.0	0.000	A
A1173 E	280	70	0	2157	0.130	280	1017	0.3	0.2	2.744	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	234	1804	0.000	0	0	0.0	0.0	0.000	A
A1173 W	850	212	0	2278	0.373	851	234	0.9	0.7	2.776	A
SHIP Access N	0	0	851	1277	0.000	0	0	0.0	0.0	0.000	A
A1173 E	234	59	0	2157	0.109	234	851	0.2	0.2	2.677	A

2025 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.79	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.79	A

Traffic Demand

Demand Set 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	2025 Baseline	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	0	100.000
A1173 W		ONE HOUR	✓	401	100.000
SHIIP Access N		ONE HOUR	✓	0	100.000
A1173 E		ONE HOUR	✓	1114	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	0	0	0
	A1173 W	0	0	0	401
	SHIIP Access N	0	0	0	0
	A1173 E	0	1114	0	0

Vehicle Mix

HV %s

From	To			
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	0	0	0
A1173 W	0	0	0	38
SHIIP Access N	0	0	0	0
A1173 E	0	8	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.00	0.00	0.0	A	0	0
A1173 W	0.19	2.70	0.3	A	368	552
SHIIP Access N	0.00	0.00	0.0	A	0	0
A1173 E	0.57	4.18	1.4	A	1022	1533

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	836	1392	0.000	0	0	0.0	0.0	0.000	A
A1173 W	302	75	0	2278	0.133	301	836	0.0	0.2	2.511	A
SHIIP Access N	0	0	301	1637	0.000	0	0	0.0	0.0	0.000	A
A1173 E	839	210	0	2157	0.389	836	301	0.0	0.7	2.936	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	1000	1279	0.000	0	0	0.0	0.0	0.000	A
A1173 W	360	90	0	2278	0.158	360	1000	0.2	0.3	2.590	A
SHIIP Access N	0	0	360	1598	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1001	250	0	2157	0.464	1000	360	0.7	0.9	3.358	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	1225	1125	0.000	0	0	0.0	0.0	0.000	A
A1173 W	442	110	0	2278	0.194	441	1225	0.3	0.3	2.704	A
SHIIP Access N	0	0	441	1545	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1227	307	0	2157	0.569	1225	441	0.9	1.4	4.161	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	1227	1124	0.000	0	0	0.0	0.0	0.000	A
A1173 W	442	110	0	2278	0.194	442	1227	0.3	0.3	2.704	A
SHIIP Access N	0	0	442	1545	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1227	307	0	2157	0.569	1227	442	1.4	1.4	4.178	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	1003	1277	0.000	0	0	0.0	0.0	0.000	A
A1173 W	360	90	0	2278	0.158	361	1003	0.3	0.3	2.591	A
SHIP Access N	0	0	361	1598	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1001	250	0	2157	0.464	1003	361	1.4	0.9	3.374	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	840	1389	0.000	0	0	0.0	0.0	0.000	A
A1173 W	302	75	0	2278	0.133	302	840	0.3	0.2	2.514	A
SHIP Access N	0	0	302	1636	0.000	0	0	0.0	0.0	0.000	A
A1173 E	839	210	0	2157	0.389	840	302	0.9	0.7	2.953	A

2025 Baseline + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.06	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.06	A

Traffic Demand

Demand Set 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	2025 Baseline + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	24	100.000
A1173 W		ONE HOUR	✓	1208	100.000
SHIIP Access N		ONE HOUR	✓	6	100.000
A1173 E		ONE HOUR	✓	371	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	15	0	9
	A1173 W	10	0	2	1196
	SHIIP Access N	0	4	0	2
	A1173 E	3	367	1	0

Vehicle Mix

HV %s

		To			
From		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
	SHIIP Access S	0	27	0	59
	A1173 W	8	0	9	15
	SHIIP Access N	0	37	0	59
	A1173 E	12	45	27	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.02	2.98	0.0	A	22	33
A1173 W	0.59	4.40	1.6	A	1108	1663
SHIIP Access N	0.01	5.43	0.0	A	6	8
A1173 E	0.19	3.00	0.3	A	340	511

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	18	5	279	1774	0.010	18	10	0.0	0.0	2.816	A
A1173 W	909	227	8	2272	0.400	906	290	0.0	0.8	3.023	A
SHIIP Access N	5	1	912	1237	0.004	4	2	0.0	0.0	4.193	A
A1173 E	279	70	11	2149	0.130	278	906	0.0	0.2	2.780	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	22	5	334	1736	0.012	22	12	0.0	0.0	2.884	A
A1173 W	1086	271	9	2271	0.478	1085	347	0.8	1.0	3.484	A
SHIIP Access N	5	1	1091	1120	0.005	5	3	0.0	0.0	4.639	A
A1173 E	334	83	13	2148	0.155	333	1084	0.2	0.3	2.868	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	26	7	409	1684	0.016	26	14	0.0	0.0	2.982	A
A1173 W	1330	333	11	2270	0.586	1328	425	1.0	1.6	4.382	A
SHIIP Access N	7	2	1335	960	0.007	7	3	0.0	0.0	5.423	A
A1173 E	408	102	15	2146	0.190	408	1327	0.3	0.3	2.995	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	26	7	410	1684	0.016	26	14	0.0	0.0	2.982	A
A1173 W	1330	333	11	2270	0.586	1330	425	1.6	1.6	4.403	A
SHIIP Access N	7	2	1338	958	0.007	7	3	0.0	0.0	5.432	A
A1173 E	408	102	15	2146	0.190	408	1329	0.3	0.3	2.995	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	22	5	335	1735	0.012	22	12	0.0	0.0	2.884	A
A1173 W	1086	271	9	2271	0.478	1088	347	1.6	1.1	3.503	A
SHIP Access N	5	1	1094	1118	0.005	5	3	0.0	0.0	4.650	A
A1173 E	334	83	13	2148	0.155	334	1087	0.3	0.3	2.871	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	18	5	280	1773	0.010	18	10	0.0	0.0	2.817	A
A1173 W	909	227	8	2272	0.400	911	291	1.1	0.8	3.040	A
SHIP Access N	5	1	916	1235	0.004	5	2	0.0	0.0	4.204	A
A1173 E	279	70	11	2149	0.130	280	910	0.3	0.2	2.783	A

2025 Baseline + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.32	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.32	A

Traffic Demand

Demand Set 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	2025 Baseline + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	180	100.000
A1173 W		ONE HOUR	✓	669	100.000
SHIIP Access N		ONE HOUR	✓	35	100.000
A1173 E		ONE HOUR	✓	1297	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	143	0	37
	A1173 W	102	0	24	543
	SHIIP Access N	0	28	0	7
	A1173 E	23	1269	5	0

Vehicle Mix

HV %s

From	To			
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	9	0	21
A1173 W	36	0	37	42
SHIIP Access N	0	12	0	45
A1173 E	39	11	83	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.20	5.11	0.3	A	165	248
A1173 W	0.33	3.37	0.7	A	614	921
SHIIP Access N	0.03	3.24	0.0	A	32	48
A1173 E	0.70	6.42	2.5	A	1190	1785

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	136	34	976	1295	0.105	135	94	0.0	0.1	3.450	A
A1173 W	504	126	31	2254	0.223	502	1080	0.0	0.4	2.891	A
SHIIP Access N	26	7	512	1499	0.018	26	22	0.0	0.0	2.867	A
A1173 E	976	244	98	2086	0.468	973	440	0.0	1.0	3.594	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	162	40	1169	1163	0.139	162	112	0.1	0.2	3.998	A
A1173 W	601	150	38	2249	0.267	601	1293	0.4	0.5	3.076	A
SHIIP Access N	31	8	613	1433	0.022	31	26	0.0	0.0	3.013	A
A1173 E	1166	291	117	2073	0.563	1164	527	1.0	1.4	4.412	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	198	50	1429	984	0.201	198	137	0.2	0.3	5.089	A
A1173 W	737	184	46	2243	0.328	736	1581	0.5	0.7	3.362	A
SHIIP Access N	39	10	750	1343	0.029	39	32	0.0	0.0	3.237	A
A1173 E	1428	357	143	2054	0.695	1424	646	1.4	2.5	6.334	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	198	50	1433	982	0.202	198	138	0.3	0.3	5.112	A
A1173 W	737	184	46	2243	0.328	737	1585	0.7	0.7	3.365	A
SHIIP Access N	39	10	751	1343	0.029	39	32	0.0	0.0	3.238	A
A1173 E	1428	357	143	2053	0.695	1428	646	2.5	2.5	6.418	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	162	40	1175	1159	0.140	162	113	0.3	0.2	4.019	A
A1173 W	601	150	38	2249	0.267	602	1299	0.7	0.5	3.081	A
SHIP Access N	31	8	614	1432	0.022	31	26	0.0	0.0	3.017	A
A1173 E	1166	291	117	2072	0.563	1170	528	2.5	1.5	4.474	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	136	34	982	1291	0.105	136	94	0.2	0.1	3.465	A
A1173 W	504	126	32	2254	0.223	504	1086	0.5	0.4	2.900	A
SHIP Access N	26	7	514	1498	0.018	26	22	0.0	0.0	2.872	A
A1173 E	976	244	98	2086	0.468	978	442	1.5	1.0	3.630	A

2025 Baseline + Committed + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.30	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.30	A

Traffic Demand

Demand Set 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	2025 Baseline + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	24	100.000
A1173 W		ONE HOUR	✓	1257	100.000
SHIIP Access N		ONE HOUR	✓	6	100.000
A1173 E		ONE HOUR	✓	445	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	15	0	9
	A1173 W	10	0	2	1245
	SHIIP Access N	0	4	0	2
	A1173 E	3	441	1	0

Vehicle Mix

HV %s

		To			
From		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
	SHIIP Access S	0	27	0	59
	A1173 W	8	0	9	16
	SHIIP Access N	0	37	0	59
	A1173 E	12	47	27	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.02	3.09	0.0	A	22	33
A1173 W	0.61	4.71	1.8	A	1153	1730
SHIIP Access N	0.01	5.64	0.0	A	6	8
A1173 E	0.23	3.19	0.4	A	408	613

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	18	5	335	1736	0.010	18	10	0.0	0.0	2.878	A
A1173 W	946	237	8	2272	0.416	943	345	0.0	0.8	3.131	A
SHIIP Access N	5	1	948	1213	0.004	4	2	0.0	0.0	4.277	A
A1173 E	335	84	10	2149	0.156	334	942	0.0	0.3	2.906	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	22	5	401	1690	0.013	22	12	0.0	0.0	2.962	A
A1173 W	1130	283	9	2271	0.498	1129	413	0.8	1.1	3.650	A
SHIIP Access N	5	1	1135	1091	0.005	5	3	0.0	0.0	4.762	A
A1173 E	400	100	13	2148	0.186	400	1128	0.3	0.3	3.019	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	26	7	491	1628	0.016	26	14	0.0	0.0	3.086	A
A1173 W	1384	346	11	2270	0.610	1381	506	1.1	1.8	4.684	A
SHIIP Access N	7	2	1389	925	0.007	7	3	0.0	0.0	5.631	A
A1173 E	490	122	15	2146	0.228	490	1380	0.3	0.4	3.187	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	26	7	491	1628	0.016	26	14	0.0	0.0	3.086	A
A1173 W	1384	346	11	2270	0.610	1384	506	1.8	1.8	4.711	A
SHIIP Access N	7	2	1392	923	0.007	7	3	0.0	0.0	5.641	A
A1173 E	490	122	15	2146	0.228	490	1383	0.4	0.4	3.187	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	22	5	401	1690	0.013	22	12	0.0	0.0	2.963	A
A1173 W	1130	283	9	2271	0.498	1133	414	1.8	1.2	3.672	A
SHIP Access N	5	1	1139	1089	0.005	5	3	0.0	0.0	4.773	A
A1173 E	400	100	13	2148	0.186	400	1132	0.4	0.3	3.020	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	18	5	336	1735	0.010	18	10	0.0	0.0	2.882	A
A1173 W	946	237	8	2272	0.416	948	347	1.2	0.8	3.152	A
SHIP Access N	5	1	953	1210	0.004	5	2	0.0	0.0	4.289	A
A1173 E	335	84	11	2149	0.156	335	947	0.3	0.3	2.909	A

2025 Baseline + Committed + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.83	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.83	A

Traffic Demand

Demand Set 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	2025 Baseline + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	180	100.000
A1173 W		ONE HOUR	✓	888	100.000
SHIIP Access N		ONE HOUR	✓	35	100.000
A1173 E		ONE HOUR	✓	1429	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	143	0	37
	A1173 W	102	0	24	762
	SHIIP Access N	0	28	0	7
	A1173 E	23	1401	5	0

Vehicle Mix

HV %s

		To			
From		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
	SHIIP Access S	0	9	0	21
	A1173 W	36	0	37	52
	SHIIP Access N	0	12	0	45
	A1173 E	39	15	83	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.22	5.86	0.3	A	165	248
A1173 W	0.44	4.25	1.2	A	815	1222
SHIIP Access N	0.03	3.68	0.0	A	32	48
A1173 E	0.77	8.64	3.7	A	1311	1967

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	136	34	1075	1228	0.110	135	94	0.0	0.1	3.663	A
A1173 W	669	167	31	2254	0.297	666	1178	0.0	0.6	3.379	A
SHIIP Access N	26	7	676	1392	0.019	26	22	0.0	0.0	3.093	A
A1173 E	1076	269	98	2086	0.516	1071	605	0.0	1.2	4.074	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	162	40	1287	1082	0.150	162	112	0.1	0.2	4.349	A
A1173 W	798	200	38	2249	0.355	798	1410	0.6	0.8	3.705	A
SHIIP Access N	31	8	809	1304	0.024	31	26	0.0	0.0	3.317	A
A1173 E	1285	321	117	2073	0.620	1282	724	1.2	1.9	5.242	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	198	50	1572	887	0.224	198	137	0.2	0.3	5.810	A
A1173 W	978	244	46	2243	0.436	976	1723	0.8	1.1	4.245	A
SHIIP Access N	39	10	991	1186	0.033	38	32	0.0	0.0	3.681	A
A1173 E	1573	393	143	2054	0.766	1566	886	1.9	3.6	8.407	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	198	50	1579	882	0.225	198	138	0.3	0.3	5.856	A
A1173 W	978	244	46	2243	0.436	978	1731	1.1	1.2	4.254	A
SHIIP Access N	39	10	992	1185	0.033	39	32	0.0	0.0	3.684	A
A1173 E	1573	393	143	2053	0.766	1573	887	3.6	3.7	8.639	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	162	40	1296	1076	0.150	162	113	0.3	0.2	4.388	A
A1173 W	798	200	38	2249	0.355	800	1421	1.2	0.8	3.718	A
SHIP Access N	31	8	811	1303	0.024	32	26	0.0	0.0	3.321	A
A1173 E	1285	321	117	2072	0.620	1292	726	3.7	1.9	5.375	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	136	34	1082	1223	0.111	136	94	0.2	0.1	3.688	A
A1173 W	669	167	32	2254	0.297	669	1186	0.8	0.6	3.400	A
SHIP Access N	26	7	679	1390	0.019	26	22	0.0	0.0	3.098	A
A1173 E	1076	269	98	2086	0.516	1079	608	1.9	1.2	4.137	A

2032 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.77	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.77	A

Traffic Demand

Demand Set 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	2032 Baseline	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	0	100.000
A1173 W		ONE HOUR	✓	1174	100.000
SHIIP Access N		ONE HOUR	✓	0	100.000
A1173 E		ONE HOUR	✓	324	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	0	0	0
	A1173 W	0	0	0	1174
	SHIIP Access N	0	0	0	0
	A1173 E	0	324	0	0

Vehicle Mix

HV %s

From	To			
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	0	0	0
A1173 W	0	0	0	10
SHIIP Access N	0	0	0	0
A1173 E	0	43	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.00	0.00	0.0	A	0	0
A1173 W	0.57	4.02	1.4	A	1077	1616
SHIIP Access N	0.00	0.00	0.0	A	0	0
A1173 E	0.17	2.86	0.3	A	297	446

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	243	1798	0.000	0	0	0.0	0.0	0.000	A
A1173 W	884	221	0	2278	0.388	881	243	0.0	0.7	2.828	A
SHIIP Access N	0	0	881	1257	0.000	0	0	0.0	0.0	0.000	A
A1173 E	244	61	0	2157	0.113	243	881	0.0	0.2	2.690	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	291	1765	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1055	264	0	2278	0.463	1054	291	0.7	0.9	3.233	A
SHIIP Access N	0	0	1054	1144	0.000	0	0	0.0	0.0	0.000	A
A1173 E	291	73	0	2157	0.135	291	1054	0.2	0.2	2.758	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	356	1721	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1293	323	0	2278	0.567	1291	356	0.9	1.4	4.003	A
SHIIP Access N	0	0	1291	989	0.000	0	0	0.0	0.0	0.000	A
A1173 E	357	89	0	2157	0.165	356	1291	0.2	0.3	2.858	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	357	1720	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1293	323	0	2278	0.567	1293	357	1.4	1.4	4.018	A
SHIIP Access N	0	0	1293	988	0.000	0	0	0.0	0.0	0.000	A
A1173 E	357	89	0	2157	0.165	357	1293	0.3	0.3	2.858	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	292	1765	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1055	264	0	2278	0.463	1057	292	1.4	1.0	3.248	A
SHIP Access N	0	0	1057	1142	0.000	0	0	0.0	0.0	0.000	A
A1173 E	291	73	0	2157	0.135	292	1057	0.3	0.2	2.761	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	244	1798	0.000	0	0	0.0	0.0	0.000	A
A1173 W	884	221	0	2278	0.388	885	244	1.0	0.7	2.846	A
SHIP Access N	0	0	885	1255	0.000	0	0	0.0	0.0	0.000	A
A1173 E	244	61	0	2157	0.113	244	885	0.2	0.2	2.690	A

2032 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.95	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.95	A

Traffic Demand

Demand Set 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	2032 Baseline	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	0	100.000
A1173 W		ONE HOUR	✓	416	100.000
SHIIP Access N		ONE HOUR	✓	0	100.000
A1173 E		ONE HOUR	✓	1156	100.000

Origin-Destination Data

Demand (PCU/hr)

	From	To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
	SHIIP Access S	0	0	0	0
	A1173 W	0	0	0	416
	SHIIP Access N	0	0	0	0
	A1173 E	0	1156	0	0

Vehicle Mix

HV %s

From	To			
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	0	0	0
A1173 W	0	0	0	38
SHIIP Access N	0	0	0	0
A1173 E	0	8	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.00	0.00	0.0	A	0	0
A1173 W	0.20	2.73	0.3	A	382	573
SHIIP Access N	0.00	0.00	0.0	A	0	0
A1173 E	0.59	4.40	1.5	A	1061	1591

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	867	1370	0.000	0	0	0.0	0.0	0.000	A
A1173 W	313	78	0	2278	0.137	312	867	0.0	0.2	2.526	A
SHIIP Access N	0	0	312	1630	0.000	0	0	0.0	0.0	0.000	A
A1173 E	870	218	0	2157	0.403	867	312	0.0	0.7	3.009	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	1038	1253	0.000	0	0	0.0	0.0	0.000	A
A1173 W	374	93	0	2278	0.164	374	1038	0.2	0.3	2.608	A
SHIIP Access N	0	0	374	1589	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1039	260	0	2157	0.482	1038	374	0.7	1.0	3.471	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	1271	1093	0.000	0	0	0.0	0.0	0.000	A
A1173 W	458	115	0	2278	0.201	458	1271	0.3	0.3	2.729	A
SHIIP Access N	0	0	458	1534	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1273	318	0	2157	0.590	1271	458	1.0	1.5	4.376	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	1273	1092	0.000	0	0	0.0	0.0	0.000	A
A1173 W	458	115	0	2278	0.201	458	1273	0.3	0.3	2.729	A
SHIIP Access N	0	0	458	1534	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1273	318	0	2157	0.590	1273	458	1.5	1.5	4.396	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	1041	1251	0.000	0	0	0.0	0.0	0.000	A
A1173 W	374	93	0	2278	0.164	374	1041	0.3	0.3	2.609	A
SHIP Access N	0	0	374	1589	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1039	260	0	2157	0.482	1041	374	1.5	1.0	3.493	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	871	1367	0.000	0	0	0.0	0.0	0.000	A
A1173 W	313	78	0	2278	0.137	313	871	0.3	0.2	2.530	A
SHIP Access N	0	0	313	1629	0.000	0	0	0.0	0.0	0.000	A
A1173 E	870	218	0	2157	0.403	871	313	1.0	0.7	3.028	A

2032 Baseline + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.83	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.83	A

Traffic Demand

Demand Set 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	2032 Baseline + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	102	100.000
A1173 W		ONE HOUR	✓	1588	100.000
SHIIP Access N		ONE HOUR	✓	22	100.000
A1173 E		ONE HOUR	✓	547	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	75	0	27
	A1173 W	138	0	25	1425
	SHIIP Access N	0	16	0	6
	A1173 E	28	514	5	0

Vehicle Mix

HV %s

From	To			
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	27	0	59
A1173 W	8	0	9	15
SHIIP Access N	0	37	0	59
A1173 E	12	45	27	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.07	3.33	0.1	A	94	140
A1173 W	0.78	8.16	3.9	A	1457	2186
SHIIP Access N	0.04	7.72	0.1	A	20	30
A1173 E	0.30	3.58	0.6	A	502	753

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	77	19	401	1690	0.045	77	124	0.0	0.1	2.993	A
A1173 W	1196	299	24	2260	0.529	1190	454	0.0	1.3	3.828	A
SHIIP Access N	17	4	1192	1054	0.016	16	22	0.0	0.0	4.941	A
A1173 E	412	103	115	2074	0.199	410	1093	0.0	0.4	3.085	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	92	23	481	1635	0.056	92	149	0.1	0.1	3.127	A
A1173 W	1428	357	29	2256	0.633	1425	543	1.3	1.9	4.932	A
SHIIP Access N	20	5	1427	900	0.022	20	27	0.0	0.0	5.821	A
A1173 E	492	123	138	2057	0.239	491	1308	0.4	0.4	3.280	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	112	28	588	1561	0.072	112	182	0.1	0.1	3.331	A
A1173 W	1748	437	35	2251	0.777	1741	665	1.9	3.8	7.941	A
SHIIP Access N	24	6	1743	693	0.035	24	33	0.0	0.1	7.664	A
A1173 E	602	151	169	2035	0.296	602	1598	0.4	0.6	3.581	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	112	28	589	1561	0.072	112	183	0.1	0.1	3.332	A
A1173 W	1748	437	35	2251	0.777	1748	666	3.8	3.9	8.160	A
SHIIP Access N	24	6	1750	688	0.035	24	33	0.1	0.1	7.719	A
A1173 E	602	151	170	2034	0.296	602	1605	0.6	0.6	3.585	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	92	23	482	1635	0.056	92	150	0.1	0.1	3.129	A
A1173 W	1428	357	29	2256	0.633	1435	545	3.9	2.0	5.056	A
SHIIP Access N	20	5	1437	893	0.022	20	27	0.1	0.0	5.869	A
A1173 E	492	123	139	2056	0.239	492	1318	0.6	0.5	3.284	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	77	19	403	1689	0.045	77	125	0.1	0.1	2.995	A
A1173 W	1196	299	24	2260	0.529	1198	456	2.0	1.3	3.885	A
SHIIP Access N	17	4	1200	1049	0.016	17	23	0.0	0.0	4.968	A
A1173 E	412	103	116	2073	0.199	412	1100	0.5	0.4	3.094	A

2032 Baseline + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.66	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.66	A

Traffic Demand

Demand Set 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	2032 Baseline + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	180	100.000
A1173 W		ONE HOUR	✓	684	100.000
SHIIP Access N		ONE HOUR	✓	35	100.000
A1173 E		ONE HOUR	✓	1339	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	143	0	37
	A1173 W	102	0	24	558
	SHIIP Access N	0	28	0	7
	A1173 E	23	1311	5	0

Vehicle Mix

HV %s

		To			
From		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
	SHIIP Access S	0	9	0	21
	A1173 W	36	0	37	42
	SHIIP Access N	0	12	0	45
	A1173 E	39	11	83	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.21	5.33	0.3	A	165	248
A1173 W	0.34	3.40	0.7	A	628	941
SHIIP Access N	0.03	3.27	0.0	A	32	48
A1173 E	0.72	6.93	2.8	A	1229	1843

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	136	34	1008	1274	0.106	135	94	0.0	0.1	3.515	A
A1173 W	515	129	31	2254	0.228	513	1111	0.0	0.4	2.911	A
SHIIP Access N	26	7	523	1492	0.018	26	22	0.0	0.0	2.882	A
A1173 E	1008	252	98	2086	0.483	1004	452	0.0	1.0	3.696	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	162	40	1206	1137	0.142	162	112	0.1	0.2	4.103	A
A1173 W	615	154	38	2249	0.273	614	1330	0.4	0.5	3.102	A
SHIIP Access N	31	8	626	1424	0.022	31	26	0.0	0.0	3.032	A
A1173 E	1204	301	117	2073	0.581	1202	541	1.0	1.5	4.602	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	198	50	1475	953	0.208	198	137	0.2	0.3	5.300	A
A1173 W	753	188	46	2243	0.336	752	1626	0.5	0.7	3.400	A
SHIIP Access N	39	10	767	1332	0.029	39	32	0.0	0.0	3.264	A
A1173 E	1474	369	143	2054	0.718	1469	662	1.5	2.8	6.814	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	198	50	1480	950	0.209	198	138	0.3	0.3	5.327	A
A1173 W	753	188	46	2243	0.336	753	1632	0.7	0.7	3.403	A
SHIIP Access N	39	10	767	1332	0.029	39	32	0.0	0.0	3.265	A
A1173 E	1474	369	143	2053	0.718	1474	663	2.8	2.8	6.927	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	162	40	1213	1133	0.143	162	113	0.3	0.2	4.130	A
A1173 W	615	154	38	2249	0.273	616	1337	0.7	0.5	3.105	A
SHIP Access N	31	8	627	1423	0.022	31	26	0.0	0.0	3.036	A
A1173 E	1204	301	117	2072	0.581	1209	542	2.8	1.6	4.675	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	136	34	1014	1270	0.107	136	94	0.2	0.1	3.535	A
A1173 W	515	129	32	2254	0.228	515	1118	0.5	0.4	2.917	A
SHIP Access N	26	7	525	1490	0.018	26	22	0.0	0.0	2.885	A
A1173 E	1008	252	98	2086	0.483	1010	454	1.6	1.1	3.738	A

2032 Baseline + Committed + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.54	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.54	A

Traffic Demand

Demand Set 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	2032 Baseline + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	102	100.000
A1173 W		ONE HOUR	✓	1636	100.000
SHIIP Access N		ONE HOUR	✓	22	100.000
A1173 E		ONE HOUR	✓	620	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	75	0	27
	A1173 W	138	0	25	1473
	SHIIP Access N	0	16	0	6
	A1173 E	28	587	5	0

Vehicle Mix

HV %s

		To			
From		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
	SHIIP Access S	0	27	0	59
	A1173 W	8	0	9	16
	SHIIP Access N	0	37	0	59
	A1173 E	12	47	27	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.07	3.46	0.1	A	94	140
A1173 W	0.80	9.18	4.5	A	1501	2252
SHIIP Access N	0.04	8.14	0.1	A	20	30
A1173 E	0.34	3.85	0.7	A	569	853

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	77	19	456	1652	0.046	77	124	0.0	0.1	3.064	A
A1173 W	1232	308	24	2260	0.545	1226	509	0.0	1.4	3.991	A
SHIIP Access N	17	4	1228	1030	0.016	16	22	0.0	0.0	5.055	A
A1173 E	467	117	115	2074	0.225	465	1129	0.0	0.4	3.237	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	92	23	546	1590	0.058	92	149	0.1	0.1	3.221	A
A1173 W	1471	368	29	2256	0.652	1468	609	1.4	2.1	5.238	A
SHIIP Access N	20	5	1470	872	0.023	20	27	0.0	0.0	6.013	A
A1173 E	557	139	138	2057	0.271	557	1351	0.4	0.5	3.474	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	112	28	669	1506	0.075	112	182	0.1	0.1	3.463	A
A1173 W	1801	450	35	2251	0.800	1792	746	2.1	4.4	8.854	A
SHIIP Access N	24	6	1794	659	0.037	24	33	0.0	0.1	8.068	A
A1173 E	683	171	169	2035	0.335	682	1650	0.5	0.7	3.850	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	112	28	669	1506	0.075	112	183	0.1	0.1	3.464	A
A1173 W	1801	450	35	2251	0.800	1801	746	4.4	4.5	9.180	A
SHIIP Access N	24	6	1803	654	0.037	24	33	0.1	0.1	8.142	A
A1173 E	683	171	170	2034	0.336	683	1658	0.7	0.7	3.855	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	92	23	547	1590	0.058	92	150	0.1	0.1	3.226	A
A1173 W	1471	368	29	2256	0.652	1480	610	4.5	2.2	5.404	A
SHIP Access N	20	5	1482	864	0.023	20	27	0.1	0.0	6.073	A
A1173 E	557	139	139	2056	0.271	558	1362	0.7	0.5	3.479	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	77	19	458	1651	0.047	77	125	0.1	0.1	3.070	A
A1173 W	1232	308	24	2260	0.545	1235	511	2.2	1.4	4.057	A
SHIP Access N	17	4	1236	1025	0.016	17	23	0.0	0.0	5.083	A
A1173 E	467	117	116	2073	0.225	467	1137	0.5	0.4	3.246	A

2032 Baseline + Committed + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.41	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.41	A

Traffic Demand

Demand Set 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	2032 Baseline + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	180	100.000
A1173 W		ONE HOUR	✓	903	100.000
SHIIP Access N		ONE HOUR	✓	35	100.000
A1173 E		ONE HOUR	✓	1471	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	143	0	37
	A1173 W	102	0	24	777
	SHIIP Access N	0	28	0	7
	A1173 E	23	1443	5	0

Vehicle Mix

HV %s

		To			
From		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
	SHIIP Access S	0	9	0	21
	A1173 W	36	0	37	52
	SHIIP Access N	0	12	0	45
	A1173 E	39	15	83	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.23	6.14	0.3	A	165	248
A1173 W	0.44	4.31	1.2	A	829	1243
SHIIP Access N	0.03	3.72	0.0	A	32	48
A1173 E	0.79	9.55	4.2	A	1350	2025

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	136	34	1106	1206	0.112	135	94	0.0	0.1	3.737	A
A1173 W	680	170	31	2254	0.302	677	1210	0.0	0.6	3.408	A
SHIIP Access N	26	7	687	1384	0.019	26	22	0.0	0.0	3.109	A
A1173 E	1107	277	98	2086	0.531	1102	616	0.0	1.3	4.202	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	162	40	1324	1057	0.153	162	112	0.1	0.2	4.474	A
A1173 W	812	203	38	2249	0.361	811	1448	0.6	0.8	3.741	A
SHIIP Access N	31	8	823	1296	0.024	31	26	0.0	0.0	3.340	A
A1173 E	1322	331	117	2073	0.638	1320	737	1.3	2.0	5.499	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	198	50	1617	856	0.232	198	137	0.2	0.3	6.080	A
A1173 W	994	249	46	2243	0.443	993	1768	0.8	1.2	4.302	A
SHIIP Access N	39	10	1007	1175	0.033	38	32	0.0	0.0	3.716	A
A1173 E	1620	405	143	2054	0.789	1611	903	2.0	4.1	9.219	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	198	50	1625	850	0.233	198	138	0.3	0.3	6.141	A
A1173 W	994	249	46	2243	0.443	994	1777	1.2	1.2	4.311	A
SHIIP Access N	39	10	1009	1174	0.033	39	32	0.0	0.0	3.719	A
A1173 E	1620	405	143	2053	0.789	1619	904	4.1	4.2	9.549	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	162	40	1335	1049	0.154	162	113	0.3	0.2	4.522	A
A1173 W	812	203	38	2249	0.361	813	1460	1.2	0.9	3.754	A
SHIP Access N	31	8	825	1294	0.024	32	26	0.0	0.0	3.345	A
A1173 E	1322	331	117	2072	0.638	1331	739	4.2	2.1	5.668	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	136	34	1114	1201	0.113	136	94	0.2	0.1	3.764	A
A1173 W	680	170	32	2254	0.302	681	1218	0.9	0.6	3.426	A
SHIP Access N	26	7	690	1382	0.019	26	22	0.0	0.0	3.117	A
A1173 E	1107	277	98	2086	0.531	1110	619	2.1	1.3	4.274	A

Appendix TN2 J

A1173/ SHIIP Average Flows Junction Assessment Results

<h1>Junctions 10</h1>
<h2>ARCADY 10 - Roundabout Module</h2>
Version: 10.0.4.1693 © Copyright TRL Software Limited, 2021
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Filename: A1173-SHIP.j10

Path: P:\23000's\23325\Junction Assessment\4 Average Flow Assessment

Report generation date: 23/10/2023 12:16:49

-
- »2021 Baseline, AM
 - »2021 Baseline, PM
 - »2025 Baseline, AM
 - »2025 Baseline, PM
 - »2025 Baseline + Committed, AM
 - »2025 Baseline + Committed, PM
 - »2025 Baseline + Committed + Development, AM
 - »2025 Baseline + Committed + Development, PM
 - »2032 Baseline, AM
 - »2032 Baseline, PM
 - »2032 Baseline + Committed, AM
 - »2032 Baseline + Committed, PM
 - »2032 Baseline + Committed + Development, AM
 - »2032 Baseline + Committed + Development, PM

Summary of junction performance

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Baseline						
SHIIP Access S	0.0	0.00	0.00	0.0	0.00	0.00
A1173 W	1.2	3.71	0.53	0.3	2.69	0.19
SHIIP Access N	0.0	0.00	0.00	0.0	0.00	0.00
A1173 E	0.3	2.82	0.15	1.3	4.04	0.55
2025 Baseline						
SHIIP Access S	0.0	0.00	0.00	0.0	0.00	0.00
A1173 W	1.3	3.83	0.55	0.3	2.70	0.19
SHIIP Access N	0.0	0.00	0.00	0.0	0.00	0.00
A1173 E	0.3	2.84	0.16	1.4	4.18	0.57
2025 Baseline + Committed						
SHIIP Access S	0.0	2.98	0.02	0.3	5.11	0.20
A1173 W	1.6	4.40	0.59	0.7	3.37	0.33
SHIIP Access N	0.0	5.43	0.01	0.0	3.24	0.03
A1173 E	0.3	3.00	0.19	2.5	6.42	0.70
2025 Baseline + Committed + Development						
SHIIP Access S	0.0	3.10	0.02	0.3	5.74	0.22
A1173 W	2.2	5.45	0.65	1.1	4.11	0.42
SHIIP Access N	0.0	6.08	0.01	0.0	3.61	0.03
A1173 E	0.4	3.23	0.23	3.5	8.28	0.76
2032 Baseline						
SHIIP Access S	0.0	0.00	0.00	0.0	0.00	0.00
A1173 W	1.4	4.02	0.57	0.3	2.73	0.20
SHIIP Access N	0.0	0.00	0.00	0.0	0.00	0.00
A1173 E	0.3	2.86	0.17	1.5	4.40	0.59
2032 Baseline + Committed						
SHIIP Access S	0.1	3.33	0.07	0.3	5.33	0.21
A1173 W	3.9	8.16	0.78	0.7	3.40	0.34
SHIIP Access N	0.1	7.72	0.04	0.0	3.27	0.03
A1173 E	0.6	3.58	0.30	2.8	6.93	0.72
2032 Baseline + Committed + Development						
SHIIP Access S	0.1	3.48	0.07	0.3	6.02	0.23
A1173 W	6.2	12.05	0.85	1.1	4.17	0.43
SHIIP Access N	0.1	9.10	0.04	0.0	3.65	0.03
A1173 E	0.7	3.91	0.34	4.0	9.14	0.78

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 Av. delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	02/08/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\arcady
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

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	2021 Baseline	AM	ONE HOUR	06:45	08:15	15	✓
D2	2021 Baseline	PM	ONE HOUR	15:45	17:15	15	✓
D3	2025 Baseline	AM	ONE HOUR	06:45	08:15	15	✓
D4	2025 Baseline	PM	ONE HOUR	15:45	17:15	15	✓
D5	2025 Baseline + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D6	2025 Baseline + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D7	2025 Baseline + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D8	2025 Baseline + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓
D9	2032 Baseline	AM	ONE HOUR	06:45	08:15	15	✓
D10	2032 Baseline	PM	ONE HOUR	15:45	17:15	15	✓
D11	2032 Baseline + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D12	2032 Baseline + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D13	2032 Baseline + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D14	2032 Baseline + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2021 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.52	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.52	A

Arms

Arms

Arm	Name	Description	No give-way line
1	SHIIP Access S		
2	A1173 W		
3	SHIIP Access N		
4	A1173 E		

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
SHIIP Access S	3.70	7.75	26.5	27.8	44.0	31.0		
A1173 W	3.60	7.80	99.6	29.6	44.0	26.0		
SHIIP Access N	3.30	7.60	25.9	19.2	44.0	32.0		
A1173 E	3.90	7.80	94.8	17.6	40.1	37.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
SHIIP Access S	0.686	1965
A1173 W	0.753	2278
SHIIP Access N	0.655	1834
A1173 E	0.724	2157

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	2021 Baseline	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	0	100.000
A1173 W		ONE HOUR	✓	1099	100.000
SHIIP Access N		ONE HOUR	✓	0	100.000
A1173 E		ONE HOUR	✓	303	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	0	0	0
	A1173 W	0	0	0	1099
	SHIIP Access N	0	0	0	0
	A1173 E	0	303	0	0

Vehicle Mix

HV %s

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	0	0	0
	A1173 W	0	0	0	10
	SHIIP Access N	0	0	0	0
	A1173 E	0	43	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.00	0.00	0.0	A	0	0
A1173 W	0.53	3.71	1.2	A	1008	1513
SHIIP Access N	0.00	0.00	0.0	A	0	0
A1173 E	0.15	2.82	0.3	A	278	417

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	227	1809	0.000	0	0	0.0	0.0	0.000	A
A1173 W	827	207	0	2278	0.363	825	227	0.0	0.6	2.721	A
SHIIP Access N	0	0	825	1294	0.000	0	0	0.0	0.0	0.000	A
A1173 E	228	57	0	2157	0.106	227	825	0.0	0.2	2.668	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	272	1778	0.000	0	0	0.0	0.0	0.000	A
A1173 W	988	247	0	2278	0.434	987	272	0.6	0.8	3.066	A
SHIIP Access N	0	0	987	1188	0.000	0	0	0.0	0.0	0.000	A
A1173 E	272	68	0	2157	0.126	272	987	0.2	0.2	2.731	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	333	1736	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1210	303	0	2278	0.531	1208	333	0.8	1.2	3.698	A
SHIIP Access N	0	0	1208	1043	0.000	0	0	0.0	0.0	0.000	A
A1173 E	334	83	0	2157	0.155	333	1208	0.2	0.3	2.822	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	334	1736	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1210	303	0	2278	0.531	1210	334	1.2	1.2	3.707	A
SHIIP Access N	0	0	1210	1042	0.000	0	0	0.0	0.0	0.000	A
A1173 E	334	83	0	2157	0.155	334	1210	0.3	0.3	2.822	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	273	1778	0.000	0	0	0.0	0.0	0.000	A
A1173 W	988	247	0	2278	0.434	990	273	1.2	0.8	3.079	A
SHIIP Access N	0	0	990	1186	0.000	0	0	0.0	0.0	0.000	A
A1173 E	272	68	0	2157	0.126	273	990	0.3	0.2	2.731	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	228	1809	0.000	0	0	0.0	0.0	0.000	A
A1173 W	827	207	0	2278	0.363	828	228	0.8	0.6	2.734	A
SHIIP Access N	0	0	828	1292	0.000	0	0	0.0	0.0	0.000	A
A1173 E	228	57	0	2157	0.106	228	828	0.2	0.2	2.670	A

2021 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.68	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.68	A

Traffic Demand

Demand Set 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	2021 Baseline	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	0	100.000
A1173 W		ONE HOUR	✓	391	100.000
SHIIP Access N		ONE HOUR	✓	0	100.000
A1173 E		ONE HOUR	✓	1086	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	0	0	0
	A1173 W	0	0	0	391
	SHIIP Access N	0	0	0	0
	A1173 E	0	1086	0	0

Vehicle Mix

HV %s

From	To			
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	0	0	0
A1173 W	0	0	0	38
SHIIP Access N	0	0	0	0
A1173 E	0	8	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.00	0.00	0.0	A	0	0
A1173 W	0.19	2.69	0.3	A	359	538
SHIIP Access N	0.00	0.00	0.0	A	0	0
A1173 E	0.55	4.04	1.3	A	997	1495

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	815	1406	0.000	0	0	0.0	0.0	0.000	A
A1173 W	294	74	0	2278	0.129	294	815	0.0	0.2	2.502	A
SHIIP Access N	0	0	294	1642	0.000	0	0	0.0	0.0	0.000	A
A1173 E	818	204	0	2157	0.379	815	294	0.0	0.7	2.893	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	975	1296	0.000	0	0	0.0	0.0	0.000	A
A1173 W	352	88	0	2278	0.154	351	975	0.2	0.3	2.578	A
SHIIP Access N	0	0	351	1604	0.000	0	0	0.0	0.0	0.000	A
A1173 E	976	244	0	2157	0.453	975	351	0.7	0.9	3.286	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	1194	1146	0.000	0	0	0.0	0.0	0.000	A
A1173 W	430	108	0	2278	0.189	430	1194	0.3	0.3	2.688	A
SHIIP Access N	0	0	430	1552	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1196	299	0	2157	0.554	1194	430	0.9	1.3	4.029	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	1196	1145	0.000	0	0	0.0	0.0	0.000	A
A1173 W	430	108	0	2278	0.189	430	1196	0.3	0.3	2.688	A
SHIIP Access N	0	0	430	1552	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1196	299	0	2157	0.554	1196	430	1.3	1.3	4.044	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	978	1294	0.000	0	0	0.0	0.0	0.000	A
A1173 W	352	88	0	2278	0.154	352	978	0.3	0.3	2.581	A
SHIP Access N	0	0	352	1604	0.000	0	0	0.0	0.0	0.000	A
A1173 E	976	244	0	2157	0.453	978	352	1.3	0.9	3.304	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	819	1404	0.000	0	0	0.0	0.0	0.000	A
A1173 W	294	74	0	2278	0.129	295	819	0.3	0.2	2.506	A
SHIP Access N	0	0	295	1641	0.000	0	0	0.0	0.0	0.000	A
A1173 E	818	204	0	2157	0.379	819	295	0.9	0.7	2.906	A

2025 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.61	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.61	A

Traffic Demand

Demand Set 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	2025 Baseline	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	0	100.000
A1173 W		ONE HOUR	✓	1129	100.000
SHIIP Access N		ONE HOUR	✓	0	100.000
A1173 E		ONE HOUR	✓	311	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	0	0	0
	A1173 W	0	0	0	1129
	SHIIP Access N	0	0	0	0
	A1173 E	0	311	0	0

Vehicle Mix

HV %s

From	To			
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	0	0	0
A1173 W	0	0	0	10
SHIIP Access N	0	0	0	0
A1173 E	0	43	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.00	0.00	0.0	A	0	0
A1173 W	0.55	3.83	1.3	A	1036	1554
SHIIP Access N	0.00	0.00	0.0	A	0	0
A1173 E	0.16	2.84	0.3	A	285	428

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	233	1805	0.000	0	0	0.0	0.0	0.000	A
A1173 W	850	212	0	2278	0.373	847	233	0.0	0.7	2.764	A
SHIIP Access N	0	0	847	1279	0.000	0	0	0.0	0.0	0.000	A
A1173 E	234	59	0	2157	0.109	233	847	0.0	0.2	2.676	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	279	1773	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1015	254	0	2278	0.446	1014	279	0.7	0.9	3.132	A
SHIIP Access N	0	0	1014	1170	0.000	0	0	0.0	0.0	0.000	A
A1173 E	280	70	0	2157	0.130	279	1014	0.2	0.2	2.741	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	342	1730	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1243	311	0	2278	0.546	1241	342	0.9	1.3	3.813	A
SHIIP Access N	0	0	1241	1021	0.000	0	0	0.0	0.0	0.000	A
A1173 E	342	86	0	2157	0.159	342	1241	0.2	0.3	2.836	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	342	1730	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1243	311	0	2278	0.546	1243	342	1.3	1.3	3.825	A
SHIIP Access N	0	0	1243	1020	0.000	0	0	0.0	0.0	0.000	A
A1173 E	342	86	0	2157	0.159	342	1243	0.3	0.3	2.836	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	280	1773	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1015	254	0	2278	0.446	1017	280	1.3	0.9	3.145	A
SHIP Access N	0	0	1017	1169	0.000	0	0	0.0	0.0	0.000	A
A1173 E	280	70	0	2157	0.130	280	1017	0.3	0.2	2.744	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	234	1804	0.000	0	0	0.0	0.0	0.000	A
A1173 W	850	212	0	2278	0.373	851	234	0.9	0.7	2.776	A
SHIP Access N	0	0	851	1277	0.000	0	0	0.0	0.0	0.000	A
A1173 E	234	59	0	2157	0.109	234	851	0.2	0.2	2.677	A

2025 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.79	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.79	A

Traffic Demand

Demand Set 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	2025 Baseline	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	0	100.000
A1173 W		ONE HOUR	✓	401	100.000
SHIIP Access N		ONE HOUR	✓	0	100.000
A1173 E		ONE HOUR	✓	1114	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	0	0	0
	A1173 W	0	0	0	401
	SHIIP Access N	0	0	0	0
	A1173 E	0	1114	0	0

Vehicle Mix

HV %s

From	To			
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	0	0	0
A1173 W	0	0	0	38
SHIIP Access N	0	0	0	0
A1173 E	0	8	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.00	0.00	0.0	A	0	0
A1173 W	0.19	2.70	0.3	A	368	552
SHIIP Access N	0.00	0.00	0.0	A	0	0
A1173 E	0.57	4.18	1.4	A	1022	1533

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	836	1392	0.000	0	0	0.0	0.0	0.000	A
A1173 W	302	75	0	2278	0.133	301	836	0.0	0.2	2.511	A
SHIIP Access N	0	0	301	1637	0.000	0	0	0.0	0.0	0.000	A
A1173 E	839	210	0	2157	0.389	836	301	0.0	0.7	2.936	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	1000	1279	0.000	0	0	0.0	0.0	0.000	A
A1173 W	360	90	0	2278	0.158	360	1000	0.2	0.3	2.590	A
SHIIP Access N	0	0	360	1598	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1001	250	0	2157	0.464	1000	360	0.7	0.9	3.358	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	1225	1125	0.000	0	0	0.0	0.0	0.000	A
A1173 W	442	110	0	2278	0.194	441	1225	0.3	0.3	2.704	A
SHIIP Access N	0	0	441	1545	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1227	307	0	2157	0.569	1225	441	0.9	1.4	4.161	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	1227	1124	0.000	0	0	0.0	0.0	0.000	A
A1173 W	442	110	0	2278	0.194	442	1227	0.3	0.3	2.704	A
SHIIP Access N	0	0	442	1545	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1227	307	0	2157	0.569	1227	442	1.4	1.4	4.178	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	1003	1277	0.000	0	0	0.0	0.0	0.000	A
A1173 W	360	90	0	2278	0.158	361	1003	0.3	0.3	2.591	A
SHIP Access N	0	0	361	1598	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1001	250	0	2157	0.464	1003	361	1.4	0.9	3.374	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	840	1389	0.000	0	0	0.0	0.0	0.000	A
A1173 W	302	75	0	2278	0.133	302	840	0.3	0.2	2.514	A
SHIP Access N	0	0	302	1636	0.000	0	0	0.0	0.0	0.000	A
A1173 E	839	210	0	2157	0.389	840	302	0.9	0.7	2.953	A

2025 Baseline + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.06	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.06	A

Traffic Demand

Demand Set 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	2025 Baseline + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	24	100.000
A1173 W		ONE HOUR	✓	1208	100.000
SHIIP Access N		ONE HOUR	✓	6	100.000
A1173 E		ONE HOUR	✓	371	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	15	0	9
	A1173 W	10	0	2	1196
	SHIIP Access N	0	4	0	2
	A1173 E	3	367	1	0

Vehicle Mix

HV %s

		To			
From		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
	SHIIP Access S	0	27	0	59
	A1173 W	8	0	9	15
	SHIIP Access N	0	37	0	59
	A1173 E	12	45	27	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.02	2.98	0.0	A	22	33
A1173 W	0.59	4.40	1.6	A	1108	1663
SHIIP Access N	0.01	5.43	0.0	A	6	8
A1173 E	0.19	3.00	0.3	A	340	511

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	18	5	279	1774	0.010	18	10	0.0	0.0	2.816	A
A1173 W	909	227	8	2272	0.400	906	290	0.0	0.8	3.023	A
SHIIP Access N	5	1	912	1237	0.004	4	2	0.0	0.0	4.193	A
A1173 E	279	70	11	2149	0.130	278	906	0.0	0.2	2.780	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	22	5	334	1736	0.012	22	12	0.0	0.0	2.884	A
A1173 W	1086	271	9	2271	0.478	1085	347	0.8	1.0	3.484	A
SHIIP Access N	5	1	1091	1120	0.005	5	3	0.0	0.0	4.639	A
A1173 E	334	83	13	2148	0.155	333	1084	0.2	0.3	2.868	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	26	7	409	1684	0.016	26	14	0.0	0.0	2.982	A
A1173 W	1330	333	11	2270	0.586	1328	425	1.0	1.6	4.382	A
SHIIP Access N	7	2	1335	960	0.007	7	3	0.0	0.0	5.423	A
A1173 E	408	102	15	2146	0.190	408	1327	0.3	0.3	2.995	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	26	7	410	1684	0.016	26	14	0.0	0.0	2.982	A
A1173 W	1330	333	11	2270	0.586	1330	425	1.6	1.6	4.403	A
SHIIP Access N	7	2	1338	958	0.007	7	3	0.0	0.0	5.432	A
A1173 E	408	102	15	2146	0.190	408	1329	0.3	0.3	2.995	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	22	5	335	1735	0.012	22	12	0.0	0.0	2.884	A
A1173 W	1086	271	9	2271	0.478	1088	347	1.6	1.1	3.503	A
SHIP Access N	5	1	1094	1118	0.005	5	3	0.0	0.0	4.650	A
A1173 E	334	83	13	2148	0.155	334	1087	0.3	0.3	2.871	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	18	5	280	1773	0.010	18	10	0.0	0.0	2.817	A
A1173 W	909	227	8	2272	0.400	911	291	1.1	0.8	3.040	A
SHIP Access N	5	1	916	1235	0.004	5	2	0.0	0.0	4.204	A
A1173 E	279	70	11	2149	0.130	280	910	0.3	0.2	2.783	A

2025 Baseline + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.32	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.32	A

Traffic Demand

Demand Set 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	2025 Baseline + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	180	100.000
A1173 W		ONE HOUR	✓	669	100.000
SHIIP Access N		ONE HOUR	✓	35	100.000
A1173 E		ONE HOUR	✓	1297	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	143	0	37
	A1173 W	102	0	24	543
	SHIIP Access N	0	28	0	7
	A1173 E	23	1269	5	0

Vehicle Mix

HV %s

		To			
From		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
	SHIIP Access S	0	9	0	21
	A1173 W	36	0	37	42
	SHIIP Access N	0	12	0	45
	A1173 E	39	11	83	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.20	5.11	0.3	A	165	248
A1173 W	0.33	3.37	0.7	A	614	921
SHIIP Access N	0.03	3.24	0.0	A	32	48
A1173 E	0.70	6.42	2.5	A	1190	1785

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	136	34	976	1295	0.105	135	94	0.0	0.1	3.450	A
A1173 W	504	126	31	2254	0.223	502	1080	0.0	0.4	2.891	A
SHIIP Access N	26	7	512	1499	0.018	26	22	0.0	0.0	2.867	A
A1173 E	976	244	98	2086	0.468	973	440	0.0	1.0	3.594	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	162	40	1169	1163	0.139	162	112	0.1	0.2	3.998	A
A1173 W	601	150	38	2249	0.267	601	1293	0.4	0.5	3.076	A
SHIIP Access N	31	8	613	1433	0.022	31	26	0.0	0.0	3.013	A
A1173 E	1166	291	117	2073	0.563	1164	527	1.0	1.4	4.412	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	198	50	1429	984	0.201	198	137	0.2	0.3	5.089	A
A1173 W	737	184	46	2243	0.328	736	1581	0.5	0.7	3.362	A
SHIIP Access N	39	10	750	1343	0.029	39	32	0.0	0.0	3.237	A
A1173 E	1428	357	143	2054	0.695	1424	646	1.4	2.5	6.334	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	198	50	1433	982	0.202	198	138	0.3	0.3	5.112	A
A1173 W	737	184	46	2243	0.328	737	1585	0.7	0.7	3.365	A
SHIIP Access N	39	10	751	1343	0.029	39	32	0.0	0.0	3.238	A
A1173 E	1428	357	143	2053	0.695	1428	646	2.5	2.5	6.418	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	162	40	1175	1159	0.140	162	113	0.3	0.2	4.019	A
A1173 W	601	150	38	2249	0.267	602	1299	0.7	0.5	3.081	A
SHIP Access N	31	8	614	1432	0.022	31	26	0.0	0.0	3.017	A
A1173 E	1166	291	117	2072	0.563	1170	528	2.5	1.5	4.474	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	136	34	982	1291	0.105	136	94	0.2	0.1	3.465	A
A1173 W	504	126	32	2254	0.223	504	1086	0.5	0.4	2.900	A
SHIP Access N	26	7	514	1498	0.018	26	22	0.0	0.0	2.872	A
A1173 E	976	244	98	2086	0.468	978	442	1.5	1.0	3.630	A

2025 Baseline + Committed + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.87	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.87	A

Traffic Demand

Demand Set 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	2025 Baseline + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	24	100.000
A1173 W		ONE HOUR	✓	1348	100.000
SHIIP Access N		ONE HOUR	✓	6	100.000
A1173 E		ONE HOUR	✓	454	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	15	0	9
	A1173 W	10	0	2	1336
	SHIIP Access N	0	4	0	2
	A1173 E	3	450	1	0

Vehicle Mix

HV %s

From	To				
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S		0	27	0	59
A1173 W		8	0	9	19
SHIIP Access N		0	37	0	59
A1173 E		12	48	27	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.02	3.10	0.0	A	22	33
A1173 W	0.65	5.45	2.2	A	1237	1855
SHIIP Access N	0.01	6.08	0.0	A	6	8
A1173 E	0.23	3.23	0.4	A	417	625

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	18	5	341	1731	0.010	18	10	0.0	0.0	2.886	A
A1173 W	1015	254	8	2272	0.447	1011	352	0.0	1.0	3.384	A
SHIIP Access N	5	1	1016	1169	0.004	4	2	0.0	0.0	4.440	A
A1173 E	342	85	10	2149	0.159	341	1010	0.0	0.3	2.937	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	22	5	409	1685	0.013	22	12	0.0	0.0	2.972	A
A1173 W	1212	303	9	2271	0.534	1210	421	1.0	1.3	4.029	A
SHIIP Access N	5	1	1217	1038	0.005	5	3	0.0	0.0	5.008	A
A1173 E	408	102	13	2148	0.190	408	1209	0.3	0.3	3.054	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	26	7	501	1622	0.016	26	14	0.0	0.0	3.099	A
A1173 W	1484	371	11	2270	0.654	1481	516	1.3	2.2	5.402	A
SHIIP Access N	7	2	1488	860	0.008	7	3	0.0	0.0	6.060	A
A1173 E	500	125	15	2146	0.233	499	1480	0.3	0.4	3.228	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	26	7	501	1621	0.016	26	14	0.0	0.0	3.099	A
A1173 W	1484	371	11	2270	0.654	1484	516	2.2	2.2	5.449	A
SHIIP Access N	7	2	1492	857	0.008	7	3	0.0	0.0	6.076	A
A1173 E	500	125	15	2146	0.233	500	1483	0.4	0.4	3.228	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	22	5	409	1684	0.013	22	12	0.0	0.0	2.973	A
A1173 W	1212	303	9	2271	0.534	1215	422	2.2	1.4	4.068	A
SHIP Access N	5	1	1222	1034	0.005	5	3	0.0	0.0	5.026	A
A1173 E	408	102	13	2148	0.190	409	1214	0.4	0.3	3.058	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	18	5	343	1730	0.010	18	10	0.0	0.0	2.888	A
A1173 W	1015	254	8	2272	0.447	1016	353	1.4	1.0	3.414	A
SHIP Access N	5	1	1022	1165	0.004	5	2	0.0	0.0	4.454	A
A1173 E	342	85	11	2149	0.159	342	1016	0.3	0.3	2.942	A

2025 Baseline + Committed + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.59	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.59	A

Traffic Demand

Demand Set 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	2025 Baseline + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	180	100.000
A1173 W		ONE HOUR	✓	856	100.000
SHIIP Access N		ONE HOUR	✓	35	100.000
A1173 E		ONE HOUR	✓	1410	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	143	0	37
	A1173 W	102	0	24	730
	SHIIP Access N	0	28	0	7
	A1173 E	23	1382	5	0

Vehicle Mix

HV %s

		To			
From		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
	SHIIP Access S	0	9	0	21
	A1173 W	36	0	37	51
	SHIIP Access N	0	12	0	45
	A1173 E	39	15	83	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.22	5.74	0.3	A	165	248
A1173 W	0.42	4.11	1.1	A	785	1178
SHIIP Access N	0.03	3.61	0.0	A	32	48
A1173 E	0.76	8.28	3.5	A	1294	1941

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	136	34	1061	1237	0.110	135	94	0.0	0.1	3.631	A
A1173 W	644	161	31	2254	0.286	642	1164	0.0	0.6	3.315	A
SHIIP Access N	26	7	652	1407	0.019	26	22	0.0	0.0	3.058	A
A1173 E	1062	265	98	2086	0.509	1057	581	0.0	1.2	4.019	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	162	40	1270	1094	0.148	162	112	0.1	0.2	4.295	A
A1173 W	770	192	38	2249	0.342	769	1394	0.6	0.8	3.611	A
SHIIP Access N	31	8	780	1323	0.024	31	26	0.0	0.0	3.269	A
A1173 E	1268	317	117	2073	0.612	1265	695	1.2	1.8	5.133	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	198	50	1551	901	0.220	198	137	0.2	0.3	5.694	A
A1173 W	942	236	46	2243	0.420	941	1703	0.8	1.1	4.106	A
SHIIP Access N	39	10	956	1209	0.032	38	32	0.0	0.0	3.609	A
A1173 E	1552	388	143	2054	0.756	1546	851	1.8	3.5	8.081	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	198	50	1558	896	0.221	198	138	0.3	0.3	5.736	A
A1173 W	942	236	46	2243	0.420	942	1710	1.1	1.1	4.113	A
SHIIP Access N	39	10	957	1208	0.032	39	32	0.0	0.0	3.612	A
A1173 E	1552	388	143	2053	0.756	1552	852	3.5	3.5	8.282	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	162	40	1279	1088	0.149	162	113	0.3	0.2	4.329	A
A1173 W	770	192	38	2249	0.342	771	1403	1.1	0.8	3.620	A
SHIP Access N	31	8	782	1322	0.024	32	26	0.0	0.0	3.273	A
A1173 E	1268	317	117	2072	0.612	1274	697	3.5	1.8	5.253	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	136	34	1068	1232	0.110	136	94	0.2	0.1	3.655	A
A1173 W	644	161	32	2254	0.286	645	1172	0.8	0.6	3.328	A
SHIP Access N	26	7	655	1405	0.019	26	22	0.0	0.0	3.065	A
A1173 E	1062	265	98	2086	0.509	1064	583	1.8	1.2	4.078	A

2032 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.77	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.77	A

Traffic Demand

Demand Set 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	2032 Baseline	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	0	100.000
A1173 W		ONE HOUR	✓	1174	100.000
SHIIP Access N		ONE HOUR	✓	0	100.000
A1173 E		ONE HOUR	✓	324	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	0	0	0
	A1173 W	0	0	0	1174
	SHIIP Access N	0	0	0	0
	A1173 E	0	324	0	0

Vehicle Mix

HV %s

From	To			
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	0	0	0
A1173 W	0	0	0	10
SHIIP Access N	0	0	0	0
A1173 E	0	43	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.00	0.00	0.0	A	0	0
A1173 W	0.57	4.02	1.4	A	1077	1616
SHIIP Access N	0.00	0.00	0.0	A	0	0
A1173 E	0.17	2.86	0.3	A	297	446

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	243	1798	0.000	0	0	0.0	0.0	0.000	A
A1173 W	884	221	0	2278	0.388	881	243	0.0	0.7	2.828	A
SHIIP Access N	0	0	881	1257	0.000	0	0	0.0	0.0	0.000	A
A1173 E	244	61	0	2157	0.113	243	881	0.0	0.2	2.690	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	291	1765	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1055	264	0	2278	0.463	1054	291	0.7	0.9	3.233	A
SHIIP Access N	0	0	1054	1144	0.000	0	0	0.0	0.0	0.000	A
A1173 E	291	73	0	2157	0.135	291	1054	0.2	0.2	2.758	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	356	1721	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1293	323	0	2278	0.567	1291	356	0.9	1.4	4.003	A
SHIIP Access N	0	0	1291	989	0.000	0	0	0.0	0.0	0.000	A
A1173 E	357	89	0	2157	0.165	356	1291	0.2	0.3	2.858	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	357	1720	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1293	323	0	2278	0.567	1293	357	1.4	1.4	4.018	A
SHIIP Access N	0	0	1293	988	0.000	0	0	0.0	0.0	0.000	A
A1173 E	357	89	0	2157	0.165	357	1293	0.3	0.3	2.858	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	292	1765	0.000	0	0	0.0	0.0	0.000	A
A1173 W	1055	264	0	2278	0.463	1057	292	1.4	1.0	3.248	A
SHIP Access N	0	0	1057	1142	0.000	0	0	0.0	0.0	0.000	A
A1173 E	291	73	0	2157	0.135	292	1057	0.3	0.2	2.761	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	244	1798	0.000	0	0	0.0	0.0	0.000	A
A1173 W	884	221	0	2278	0.388	885	244	1.0	0.7	2.846	A
SHIP Access N	0	0	885	1255	0.000	0	0	0.0	0.0	0.000	A
A1173 E	244	61	0	2157	0.113	244	885	0.2	0.2	2.690	A

2032 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.95	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.95	A

Traffic Demand

Demand Set 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	2032 Baseline	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	0	100.000
A1173 W		ONE HOUR	✓	416	100.000
SHIIP Access N		ONE HOUR	✓	0	100.000
A1173 E		ONE HOUR	✓	1156	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	0	0	0
	A1173 W	0	0	0	416
	SHIIP Access N	0	0	0	0
	A1173 E	0	1156	0	0

Vehicle Mix

HV %s

From	To			
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	0	0	0
A1173 W	0	0	0	38
SHIIP Access N	0	0	0	0
A1173 E	0	8	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.00	0.00	0.0	A	0	0
A1173 W	0.20	2.73	0.3	A	382	573
SHIIP Access N	0.00	0.00	0.0	A	0	0
A1173 E	0.59	4.40	1.5	A	1061	1591

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	867	1370	0.000	0	0	0.0	0.0	0.000	A
A1173 W	313	78	0	2278	0.137	312	867	0.0	0.2	2.526	A
SHIIP Access N	0	0	312	1630	0.000	0	0	0.0	0.0	0.000	A
A1173 E	870	218	0	2157	0.403	867	312	0.0	0.7	3.009	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	1038	1253	0.000	0	0	0.0	0.0	0.000	A
A1173 W	374	93	0	2278	0.164	374	1038	0.2	0.3	2.608	A
SHIIP Access N	0	0	374	1589	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1039	260	0	2157	0.482	1038	374	0.7	1.0	3.471	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	1271	1093	0.000	0	0	0.0	0.0	0.000	A
A1173 W	458	115	0	2278	0.201	458	1271	0.3	0.3	2.729	A
SHIIP Access N	0	0	458	1534	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1273	318	0	2157	0.590	1271	458	1.0	1.5	4.376	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	0	0	1273	1092	0.000	0	0	0.0	0.0	0.000	A
A1173 W	458	115	0	2278	0.201	458	1273	0.3	0.3	2.729	A
SHIIP Access N	0	0	458	1534	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1273	318	0	2157	0.590	1273	458	1.5	1.5	4.396	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	1041	1251	0.000	0	0	0.0	0.0	0.000	A
A1173 W	374	93	0	2278	0.164	374	1041	0.3	0.3	2.609	A
SHIP Access N	0	0	374	1589	0.000	0	0	0.0	0.0	0.000	A
A1173 E	1039	260	0	2157	0.482	1041	374	1.5	1.0	3.493	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	0	0	871	1367	0.000	0	0	0.0	0.0	0.000	A
A1173 W	313	78	0	2278	0.137	313	871	0.3	0.2	2.530	A
SHIP Access N	0	0	313	1629	0.000	0	0	0.0	0.0	0.000	A
A1173 E	870	218	0	2157	0.403	871	313	1.0	0.7	3.028	A

2032 Baseline + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.83	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.83	A

Traffic Demand

Demand Set 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	2032 Baseline + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	102	100.000
A1173 W		ONE HOUR	✓	1588	100.000
SHIIP Access N		ONE HOUR	✓	22	100.000
A1173 E		ONE HOUR	✓	547	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	75	0	27
	A1173 W	138	0	25	1425
	SHIIP Access N	0	16	0	6
	A1173 E	28	514	5	0

Vehicle Mix

HV %s

From	To			
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	27	0	59
A1173 W	8	0	9	15
SHIIP Access N	0	37	0	59
A1173 E	12	45	27	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.07	3.33	0.1	A	94	140
A1173 W	0.78	8.16	3.9	A	1457	2186
SHIIP Access N	0.04	7.72	0.1	A	20	30
A1173 E	0.30	3.58	0.6	A	502	753

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	77	19	401	1690	0.045	77	124	0.0	0.1	2.993	A
A1173 W	1196	299	24	2260	0.529	1190	454	0.0	1.3	3.828	A
SHIIP Access N	17	4	1192	1054	0.016	16	22	0.0	0.0	4.941	A
A1173 E	412	103	115	2074	0.199	410	1093	0.0	0.4	3.085	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	92	23	481	1635	0.056	92	149	0.1	0.1	3.127	A
A1173 W	1428	357	29	2256	0.633	1425	543	1.3	1.9	4.932	A
SHIIP Access N	20	5	1427	900	0.022	20	27	0.0	0.0	5.821	A
A1173 E	492	123	138	2057	0.239	491	1308	0.4	0.4	3.280	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	112	28	588	1561	0.072	112	182	0.1	0.1	3.331	A
A1173 W	1748	437	35	2251	0.777	1741	665	1.9	3.8	7.941	A
SHIIP Access N	24	6	1743	693	0.035	24	33	0.0	0.1	7.664	A
A1173 E	602	151	169	2035	0.296	602	1598	0.4	0.6	3.581	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	112	28	589	1561	0.072	112	183	0.1	0.1	3.332	A
A1173 W	1748	437	35	2251	0.777	1748	666	3.8	3.9	8.160	A
SHIIP Access N	24	6	1750	688	0.035	24	33	0.1	0.1	7.719	A
A1173 E	602	151	170	2034	0.296	602	1605	0.6	0.6	3.585	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	92	23	482	1635	0.056	92	150	0.1	0.1	3.129	A
A1173 W	1428	357	29	2256	0.633	1435	545	3.9	2.0	5.056	A
SHIP Access N	20	5	1437	893	0.022	20	27	0.1	0.0	5.869	A
A1173 E	492	123	139	2056	0.239	492	1318	0.6	0.5	3.284	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	77	19	403	1689	0.045	77	125	0.1	0.1	2.995	A
A1173 W	1196	299	24	2260	0.529	1198	456	2.0	1.3	3.885	A
SHIP Access N	17	4	1200	1049	0.016	17	23	0.0	0.0	4.968	A
A1173 E	412	103	116	2073	0.199	412	1100	0.5	0.4	3.094	A

2032 Baseline + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.66	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.66	A

Traffic Demand

Demand Set 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	2032 Baseline + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	180	100.000
A1173 W		ONE HOUR	✓	684	100.000
SHIIP Access N		ONE HOUR	✓	35	100.000
A1173 E		ONE HOUR	✓	1339	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	143	0	37
	A1173 W	102	0	24	558
	SHIIP Access N	0	28	0	7
	A1173 E	23	1311	5	0

Vehicle Mix

HV %s

		To			
From		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
	SHIIP Access S	0	9	0	21
	A1173 W	36	0	37	42
	SHIIP Access N	0	12	0	45
	A1173 E	39	11	83	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.21	5.33	0.3	A	165	248
A1173 W	0.34	3.40	0.7	A	628	941
SHIIP Access N	0.03	3.27	0.0	A	32	48
A1173 E	0.72	6.93	2.8	A	1229	1843

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	136	34	1008	1274	0.106	135	94	0.0	0.1	3.515	A
A1173 W	515	129	31	2254	0.228	513	1111	0.0	0.4	2.911	A
SHIIP Access N	26	7	523	1492	0.018	26	22	0.0	0.0	2.882	A
A1173 E	1008	252	98	2086	0.483	1004	452	0.0	1.0	3.696	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	162	40	1206	1137	0.142	162	112	0.1	0.2	4.103	A
A1173 W	615	154	38	2249	0.273	614	1330	0.4	0.5	3.102	A
SHIIP Access N	31	8	626	1424	0.022	31	26	0.0	0.0	3.032	A
A1173 E	1204	301	117	2073	0.581	1202	541	1.0	1.5	4.602	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	198	50	1475	953	0.208	198	137	0.2	0.3	5.300	A
A1173 W	753	188	46	2243	0.336	752	1626	0.5	0.7	3.400	A
SHIIP Access N	39	10	767	1332	0.029	39	32	0.0	0.0	3.264	A
A1173 E	1474	369	143	2054	0.718	1469	662	1.5	2.8	6.814	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	198	50	1480	950	0.209	198	138	0.3	0.3	5.327	A
A1173 W	753	188	46	2243	0.336	753	1632	0.7	0.7	3.403	A
SHIIP Access N	39	10	767	1332	0.029	39	32	0.0	0.0	3.265	A
A1173 E	1474	369	143	2053	0.718	1474	663	2.8	2.8	6.927	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	162	40	1213	1133	0.143	162	113	0.3	0.2	4.130	A
A1173 W	615	154	38	2249	0.273	616	1337	0.7	0.5	3.105	A
SHIP Access N	31	8	627	1423	0.022	31	26	0.0	0.0	3.036	A
A1173 E	1204	301	117	2072	0.581	1209	542	2.8	1.6	4.675	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	136	34	1014	1270	0.107	136	94	0.2	0.1	3.535	A
A1173 W	515	129	32	2254	0.228	515	1118	0.5	0.4	2.917	A
SHIP Access N	26	7	525	1490	0.018	26	22	0.0	0.0	2.885	A
A1173 E	1008	252	98	2086	0.483	1010	454	1.6	1.1	3.738	A

2032 Baseline + Committed + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	9.61	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.61	A

Traffic Demand

Demand Set 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	2032 Baseline + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	102	100.000
A1173 W		ONE HOUR	✓	1728	100.000
SHIIP Access N		ONE HOUR	✓	22	100.000
A1173 E		ONE HOUR	✓	629	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	75	0	27
	A1173 W	138	0	25	1565
	SHIIP Access N	0	16	0	6
	A1173 E	28	596	5	0

Vehicle Mix

HV %s

From	To			
	SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
SHIIP Access S	0	27	0	59
A1173 W	8	0	9	19
SHIIP Access N	0	37	0	59
A1173 E	12	48	27	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.07	3.48	0.1	A	94	140
A1173 W	0.85	12.05	6.2	B	1586	2378
SHIIP Access N	0.04	9.10	0.1	A	20	30
A1173 E	0.34	3.91	0.7	A	577	866

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	77	19	463	1648	0.047	77	124	0.0	0.1	3.073	A
A1173 W	1301	325	24	2260	0.576	1295	515	0.0	1.6	4.370	A
SHIIP Access N	17	4	1296	986	0.017	16	22	0.0	0.0	5.288	A
A1173 E	474	118	115	2074	0.228	472	1197	0.0	0.4	3.272	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	92	23	554	1585	0.058	92	149	0.1	0.1	3.233	A
A1173 W	1553	388	29	2256	0.689	1550	617	1.6	2.6	5.971	A
SHIIP Access N	20	5	1551	818	0.024	20	27	0.0	0.0	6.416	A
A1173 E	565	141	138	2057	0.275	565	1433	0.4	0.5	3.516	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	112	28	679	1500	0.075	112	182	0.1	0.1	3.480	A
A1173 W	1903	476	35	2251	0.845	1889	756	2.6	6.0	11.303	B
SHIIP Access N	24	6	1891	596	0.041	24	33	0.0	0.1	8.963	A
A1173 E	693	173	168	2035	0.340	692	1747	0.5	0.7	3.902	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	112	28	679	1499	0.075	112	183	0.1	0.1	3.481	A
A1173 W	1903	476	35	2251	0.845	1902	756	6.0	6.2	12.055	B
SHIIP Access N	24	6	1904	588	0.041	24	33	0.1	0.1	9.096	A
A1173 E	693	173	169	2034	0.340	693	1759	0.7	0.7	3.909	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	92	23	555	1584	0.058	92	150	0.1	0.1	3.238	A
A1173 W	1553	388	29	2256	0.689	1567	618	6.2	2.7	6.282	A
SHIP Access N	20	5	1569	807	0.025	20	27	0.1	0.0	6.512	A
A1173 E	565	141	140	2056	0.275	566	1449	0.7	0.6	3.522	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	77	19	465	1646	0.047	77	125	0.1	0.1	3.079	A
A1173 W	1301	325	24	2260	0.576	1305	518	2.7	1.6	4.466	A
SHIP Access N	17	4	1307	979	0.017	17	23	0.0	0.0	5.326	A
A1173 E	474	118	116	2073	0.228	474	1207	0.6	0.4	3.283	A

2032 Baseline + Committed + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A1173 W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	A1173 E - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.13	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.13	A

Traffic Demand

Demand Set 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	2032 Baseline + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
SHIIP Access S		ONE HOUR	✓	180	100.000
A1173 W		ONE HOUR	✓	871	100.000
SHIIP Access N		ONE HOUR	✓	35	100.000
A1173 E		ONE HOUR	✓	1453	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	143	0	37
	A1173 W	102	0	24	745
	SHIIP Access N	0	28	0	7
	A1173 E	23	1425	5	0

Vehicle Mix

HV %s

	To				
		SHIIP Access S	A1173 W	SHIIP Access N	A1173 E
From	SHIIP Access S	0	9	0	21
	A1173 W	36	0	37	51
	SHIIP Access N	0	12	0	45
	A1173 E	39	15	83	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
SHIIP Access S	0.23	6.02	0.3	A	165	248
A1173 W	0.43	4.17	1.1	A	799	1199
SHIIP Access N	0.03	3.65	0.0	A	32	48
A1173 E	0.78	9.14	4.0	A	1333	2000

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	136	34	1093	1215	0.111	135	94	0.0	0.1	3.705	A
A1173 W	656	164	31	2254	0.291	653	1196	0.0	0.6	3.339	A
SHIIP Access N	26	7	663	1400	0.019	26	22	0.0	0.0	3.074	A
A1173 E	1094	273	98	2086	0.524	1089	592	0.0	1.3	4.146	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	162	40	1308	1068	0.152	162	112	0.1	0.2	4.419	A
A1173 W	783	196	38	2249	0.348	782	1432	0.6	0.8	3.645	A
SHIIP Access N	31	8	794	1314	0.024	31	26	0.0	0.0	3.292	A
A1173 E	1306	327	117	2073	0.630	1304	709	1.3	1.9	5.385	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	198	50	1598	869	0.228	198	137	0.2	0.3	5.963	A
A1173 W	959	240	46	2243	0.428	958	1749	0.8	1.1	4.159	A
SHIIP Access N	39	10	972	1198	0.032	38	32	0.0	0.0	3.643	A
A1173 E	1600	400	143	2054	0.779	1592	868	1.9	3.9	8.855	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIIP Access S	198	50	1605	864	0.229	198	138	0.3	0.3	6.016	A
A1173 W	959	240	46	2243	0.428	959	1757	1.1	1.1	4.167	A
SHIIP Access N	39	10	973	1197	0.032	39	32	0.0	0.0	3.645	A
A1173 E	1600	400	143	2053	0.779	1599	869	3.9	4.0	9.136	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	162	40	1319	1060	0.153	162	113	0.3	0.2	4.462	A
A1173 W	783	196	38	2249	0.348	784	1443	1.1	0.8	3.655	A
SHIP Access N	31	8	796	1313	0.024	32	26	0.0	0.0	3.298	A
A1173 E	1306	327	117	2072	0.630	1314	710	4.0	2.0	5.539	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
SHIP Access S	136	34	1100	1210	0.112	136	94	0.2	0.1	3.731	A
A1173 W	656	164	32	2254	0.291	656	1205	0.8	0.6	3.353	A
SHIP Access N	26	7	666	1398	0.019	26	22	0.0	0.0	3.081	A
A1173 E	1094	273	98	2086	0.524	1097	595	2.0	1.3	4.214	A

Appendix TN2 K

A160/ Humber Road/ Manby Road Junction Assessment Results

<h1>Junctions 10</h1>
<h2>ARCADY 10 - Roundabout Module</h2>
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Filename: A160-Humber Road-Manby Road.j10
Path: P:\23000's\23325\Junction Assessment\1 Base Assessment
Report generation date: 18/10/2023 16:37:12

- »2021 Base, AM
- »2021 Base, PM
- »2025 Base, AM
- »2025 Base, PM
- »2025 Base + Committed, AM
- »2025 Base + Committed, PM
- »2025 Base + Committed + Development, AM
- »2025 Base + Committed + Development, PM
- »2032 Base, AM
- »2032 Base, PM
- »2032 Base + Committed, AM
- »2032 Base + Committed, PM
- »2032 Base + Committed + Development, AM
- »2032 Base + Committed + Development, PM

Summary of junction performance

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Base						
A - Humber Road	1.4	5.94	0.44	3.0	8.35	0.68
B - Manby Road	0.8	3.71	0.40	0.4	3.15	0.26
C - Port Service Access	0.1	12.22	0.03	0.0	8.68	0.03
D - A160	1.3	4.96	0.48	1.2	4.77	0.43
E - Conco Access	0.0	0.00	0.00	0.0	0.00	0.00
2025 Base						
A - Humber Road	1.5	6.18	0.46	3.5	9.34	0.71
B - Manby Road	0.9	3.89	0.43	0.5	3.25	0.27
C - Port Service Access	0.1	12.83	0.03	0.1	9.04	0.03
D - A160	1.4	5.24	0.50	1.3	4.97	0.45
E - Conco Access	0.0	0.00	0.00	0.0	0.00	0.00
2025 Base + Committed						
A - Humber Road	1.6	6.28	0.48	5.6	13.48	0.81
B - Manby Road	1.2	4.33	0.50	0.5	3.34	0.30
C - Port Service Access	0.1	14.36	0.03	0.1	9.57	0.03
D - A160	1.7	5.87	0.55	1.4	5.16	0.48
E - Conco Access	0.0	0.00	0.00	0.0	0.00	0.00
2025 Base + Committed + Development						
A - Humber Road	1.7	6.39	0.50	6.2	14.70	0.82
B - Manby Road	1.2	4.40	0.50	0.5	3.39	0.31
C - Port Service Access	0.1	14.63	0.03	0.1	9.76	0.03
D - A160	1.8	6.18	0.57	1.5	5.43	0.50
E - Conco Access	0.0	0.00	0.00	0.0	0.00	0.00
2032 Base						
A - Humber Road	1.8	6.62	0.49	4.5	11.44	0.76
B - Manby Road	1.0	4.21	0.46	0.5	3.43	0.30
C - Port Service Access	0.1	13.87	0.03	0.1	9.59	0.03
D - A160	1.6	5.73	0.54	1.4	5.28	0.48
E - Conco Access	0.0	0.00	0.00	0.0	2.99	0.00
2032 Base + Committed						
A - Humber Road	1.9	6.75	0.52	8.0	18.52	0.86
B - Manby Road	1.4	4.76	0.54	0.6	3.54	0.33
C - Port Service Access	0.1	15.68	0.03	0.1	10.19	0.04
D - A160	2.0	6.51	0.59	1.6	5.53	0.51
E - Conco Access	0.0	0.00	0.00	0.0	3.08	0.00
2032 Base + Committed + Development						
A - Humber Road	2.0	6.89	0.53	9.1	20.78	0.88
B - Manby Road	1.4	4.84	0.54	0.6	3.59	0.33
C - Port Service Access	0.1	16.01	0.04	0.1	10.41	0.04
D - A160	2.1	6.87	0.61	1.7	5.84	0.53
E - Conco Access	0.0	0.00	0.00	0.0	3.13	0.00

Values shown are the highest values encountered over all time segments. Delay is the maximum value of Av. delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	18/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\Arcady
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

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	2021 Base	AM	ONE HOUR	06:45	08:15	15	✓
D2	2021 Base	PM	ONE HOUR	15:45	17:15	15	✓
D3	2025 Base	AM	ONE HOUR	06:45	08:15	15	✓
D4	2025 Base	PM	ONE HOUR	15:45	17:15	15	✓
D5	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D6	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D7	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D8	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓
D9	2032 Base	AM	ONE HOUR	06:45	08:15	15	✓
D10	2032 Base	PM	ONE HOUR	15:45	17:15	15	✓
D11	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D12	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D13	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D14	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2021 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	4.94	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.94	A

Arms

Arms

Arm	Name	Description	No give-way line
A	Humber Road		
B	Manby Road		
C	Port Service Access		
D	A160		
E	Conco Access		

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
A - Humber Road	7.00	7.00	0.0	35.0	86.0	36.0		
B - Manby Road	7.20	8.30	5.0	57.0	86.0	30.0		
C - Port Service Access	3.00	8.10	4.5	17.2	87.0	33.0		
D - A160	7.00	8.12	4.0	21.0	86.0	41.0		
E - Conco Access	7.80	9.70	15.0	10.0	86.0	52.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Humber Road	0.521	2121
B - Manby Road	0.576	2453
C - Port Service Access	0.387	1220
D - A160	0.527	2218
E - Conco Access	0.538	2426

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	2021 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	789	100.000
B - Manby Road		ONE HOUR	✓	730	100.000
C - Port Service Access		ONE HOUR	✓	14	100.000
D - A160		ONE HOUR	✓	850	100.000
E - Conco Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	19	87	2	681	0
	B - Manby Road	426	6	2	296	0
	C - Port Service Access	9	0	0	5	0
	D - A160	597	224	7	17	5
	E - Conco Access	0	0	0	0	0

Vehicle Mix

HV %s

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	42	38	100	92	0
	B - Manby Road	22	67	100	22	0
	C - Port Service Access	100	0	0	100	0
	D - A160	48	19	100	67	100
	E - Conco Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.44	5.94	1.4	A	724	1086
B - Manby Road	0.40	3.71	0.8	A	670	1005
C - Port Service Access	0.03	12.22	0.1	B	13	19
D - A160	0.48	4.96	1.3	A	780	1170
E - Conco Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	594	149	190	2022	0.294	591	788	0.0	0.8	4.584	A
B - Manby Road	550	137	544	2139	0.257	548	238	0.0	0.4	2.766	A
C - Port Service Access	11	3	1083	801	0.013	10	8	0.0	0.0	9.109	A
D - A160	640	160	345	2035	0.314	637	749	0.0	0.6	3.595	A
E - Conco Access	0	0	979	1899	0.000	0	4	0.0	0.0	0.000	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	709	177	228	2002	0.354	708	944	0.8	1.0	5.077	A
B - Manby Road	656	164	652	2077	0.316	656	285	0.4	0.6	3.097	A
C - Port Service Access	13	3	1298	718	0.018	13	10	0.0	0.0	10.208	B
D - A160	764	191	413	2000	0.382	763	897	0.6	0.9	4.069	A
E - Conco Access	0	0	1172	1795	0.000	0	4	0.0	0.0	0.000	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	869	217	279	1976	0.440	867	1155	1.0	1.4	5.921	A
B - Manby Road	804	201	798	1993	0.403	803	348	0.6	0.8	3.697	A
C - Port Service Access	15	4	1588	605	0.025	15	12	0.0	0.1	12.202	B
D - A160	936	234	506	1951	0.480	934	1098	0.9	1.3	4.944	A
E - Conco Access	0	0	1434	1654	0.000	0	5	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	869	217	280	1975	0.440	869	1157	1.4	1.4	5.938	A
B - Manby Road	804	201	799	1992	0.403	804	349	0.8	0.8	3.706	A
C - Port Service Access	15	4	1591	604	0.026	15	12	0.1	0.1	12.225	B
D - A160	936	234	506	1950	0.480	936	1100	1.3	1.3	4.961	A
E - Conco Access	0	0	1437	1653	0.000	0	6	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	709	177	229	2002	0.354	711	947	1.4	1.0	5.099	A
B - Manby Road	656	164	654	2076	0.316	657	286	0.8	0.6	3.107	A
C - Port Service Access	13	3	1302	716	0.018	13	10	0.1	0.0	10.232	B
D - A160	764	191	414	1999	0.382	766	900	1.3	0.9	4.087	A
E - Conco Access	0	0	1175	1793	0.000	0	5	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	594	149	191	2021	0.294	595	792	1.0	0.8	4.610	A
B - Manby Road	550	137	547	2137	0.257	550	239	0.6	0.4	2.778	A
C - Port Service Access	11	3	1089	798	0.013	11	8	0.0	0.0	9.138	A
D - A160	640	160	347	2035	0.315	641	753	0.9	0.6	3.616	A
E - Conco Access	0	0	984	1897	0.000	0	4	0.0	0.0	0.000	A

2021 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	6.23	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.23	A

Traffic Demand

Demand Set 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	2021 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	1188	100.000
B - Manby Road		ONE HOUR	✓	454	100.000
C - Port Service Access		ONE HOUR	✓	18	100.000
D - A160		ONE HOUR	✓	809	100.000
E - Conco Access		ONE HOUR	✓	4	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	72	388	0	728	0
	B - Manby Road	170	12	2	270	0
	C - Port Service Access	0	7	0	11	0
	D - A160	486	302	8	8	5
	E - Conco Access	0	2	0	2	0

Vehicle Mix

HV %s

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	37	21	0	61	0
	B - Manby Road	37	9	100	20	0
	C - Port Service Access	0	50	0	67	0
	D - A160	91	20	75	40	100
	E - Conco Access	0	0	0	100	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.68	8.35	3.0	A	1090	1635
B - Manby Road	0.26	3.15	0.4	A	417	625
C - Port Service Access	0.03	8.68	0.0	A	17	25
D - A160	0.43	4.77	1.2	A	742	1114
E - Conco Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	894	224	253	1990	0.450	890	546	0.0	1.2	4.692	A
B - Manby Road	342	85	611	2101	0.163	341	531	0.0	0.2	2.570	A
C - Port Service Access	14	3	944	855	0.016	13	7	0.0	0.0	6.845	A
D - A160	609	152	196	2114	0.288	607	762	0.0	0.6	3.716	A
E - Conco Access	0	0	799	1996	0.000	0	4	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1068	267	303	1963	0.544	1066	654	1.2	1.7	5.758	A
B - Manby Road	408	102	732	2031	0.201	408	636	0.2	0.3	2.788	A
C - Port Service Access	16	4	1131	782	0.021	16	9	0.0	0.0	7.514	A
D - A160	727	182	234	2094	0.347	726	913	0.6	0.8	4.103	A
E - Conco Access	0	0	956	1911	0.000	0	4	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1308	327	370	1928	0.678	1303	800	1.7	3.0	8.222	A
B - Manby Road	500	125	895	1937	0.258	499	778	0.3	0.4	3.148	A
C - Port Service Access	20	5	1383	685	0.029	20	11	0.0	0.0	8.660	A
D - A160	891	223	287	2066	0.431	889	1116	0.8	1.2	4.762	A
E - Conco Access	0	0	1171	1796	0.000	0	5	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1308	327	371	1928	0.679	1308	802	3.0	3.0	8.351	A
B - Manby Road	500	125	898	1935	0.258	500	781	0.4	0.4	3.152	A
C - Port Service Access	20	5	1387	683	0.029	20	11	0.0	0.0	8.679	A
D - A160	891	223	287	2066	0.431	891	1120	1.2	1.2	4.775	A
E - Conco Access	0	0	1173	1795	0.000	0	6	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1068	267	304	1963	0.544	1073	656	3.0	1.7	5.855	A
B - Manby Road	408	102	737	2028	0.201	409	640	0.4	0.3	2.797	A
C - Port Service Access	16	4	1137	780	0.021	16	9	0.0	0.0	7.539	A
D - A160	727	182	235	2094	0.347	729	918	1.2	0.8	4.115	A
E - Conco Access	0	0	959	1910	0.000	0	5	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	894	224	254	1989	0.450	897	549	1.7	1.2	4.753	A
B - Manby Road	342	85	616	2098	0.163	342	535	0.3	0.2	2.579	A
C - Port Service Access	14	3	950	852	0.016	14	8	0.0	0.0	6.867	A
D - A160	609	152	197	2114	0.288	610	767	0.8	0.6	3.733	A
E - Conco Access	0	0	803	1994	0.000	0	4	0.0	0.0	0.000	A

2025 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	5.18	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.18	A

Traffic Demand

Demand Set 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	2025 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	822	100.000
B - Manby Road		ONE HOUR	✓	762	100.000
C - Port Service Access		ONE HOUR	✓	15	100.000
D - A160		ONE HOUR	✓	888	100.000
E - Conco Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	19	90	2	711	0
	B - Manby Road	445	6	2	309	0
	C - Port Service Access	10	0	0	5	0
	D - A160	624	234	7	18	5
	E - Conco Access	0	0	0	0	0

Vehicle Mix

HV %s

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	42	38	100	92	0
	B - Manby Road	22	67	100	22	0
	C - Port Service Access	100	0	0	100	0
	D - A160	48	19	100	67	100
	E - Conco Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.46	6.18	1.5	A	754	1131
B - Manby Road	0.43	3.89	0.9	A	699	1049
C - Port Service Access	0.03	12.83	0.1	B	14	21
D - A160	0.50	5.24	1.4	A	815	1222
E - Conco Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	619	155	199	2018	0.307	616	824	0.0	0.8	4.681	A
B - Manby Road	574	143	567	2126	0.270	572	247	0.0	0.5	2.832	A
C - Port Service Access	11	3	1131	783	0.014	11	8	0.0	0.0	9.333	A
D - A160	669	167	360	2028	0.330	666	782	0.0	0.7	3.688	A
E - Conco Access	0	0	1022	1876	0.000	0	4	0.0	0.0	0.000	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	739	185	238	1997	0.370	738	986	0.8	1.1	5.218	A
B - Manby Road	685	171	680	2061	0.332	684	296	0.5	0.6	3.198	A
C - Port Service Access	13	3	1354	696	0.019	13	10	0.0	0.0	10.548	B
D - A160	798	200	431	1990	0.401	797	936	0.7	0.9	4.216	A
E - Conco Access	0	0	1224	1767	0.000	0	4	0.0	0.0	0.000	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	905	226	291	1969	0.460	903	1207	1.1	1.5	6.156	A
B - Manby Road	839	210	832	1974	0.425	838	363	0.6	0.9	3.875	A
C - Port Service Access	17	4	1657	579	0.029	16	12	0.0	0.1	12.806	B
D - A160	978	244	528	1939	0.504	976	1146	0.9	1.4	5.214	A
E - Conco Access	0	0	1498	1620	0.000	0	5	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	905	226	292	1969	0.460	905	1209	1.5	1.5	6.180	A
B - Manby Road	839	210	833	1973	0.425	839	363	0.9	0.9	3.885	A
C - Port Service Access	17	4	1660	577	0.029	17	12	0.1	0.1	12.834	B
D - A160	978	244	528	1939	0.504	978	1148	1.4	1.4	5.237	A
E - Conco Access	0	0	1501	1619	0.000	0	6	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	739	185	239	1997	0.370	741	989	1.5	1.1	5.244	A
B - Manby Road	685	171	682	2060	0.333	686	297	0.9	0.6	3.209	A
C - Port Service Access	13	3	1358	694	0.019	14	10	0.1	0.0	10.577	B
D - A160	798	200	432	1990	0.401	800	940	1.4	0.9	4.240	A
E - Conco Access	0	0	1228	1765	0.000	0	5	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	619	155	200	2017	0.307	620	828	1.1	0.8	4.712	A
B - Manby Road	574	143	571	2124	0.270	574	249	0.6	0.5	2.843	A
C - Port Service Access	11	3	1137	780	0.014	11	8	0.0	0.0	9.367	A
D - A160	669	167	362	2027	0.330	670	786	0.9	0.7	3.713	A
E - Conco Access	0	0	1028	1873	0.000	0	4	0.0	0.0	0.000	A

2025 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	6.79	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.79	A

Traffic Demand

Demand Set 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	2025 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	1240	100.000
B - Manby Road		ONE HOUR	✓	474	100.000
C - Port Service Access		ONE HOUR	✓	19	100.000
D - A160		ONE HOUR	✓	844	100.000
E - Conco Access		ONE HOUR	✓	4	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	76	404	0	760	0
	B - Manby Road	177	13	2	282	0
	C - Port Service Access	0	7	0	12	0
	D - A160	507	316	8	8	5
	E - Conco Access	0	2	0	2	0

Vehicle Mix

HV %s

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	37	21	0	61	0
	B - Manby Road	37	9	100	20	0
	C - Port Service Access	0	50	0	67	0
	D - A160	91	20	75	40	100
	E - Conco Access	0	0	0	100	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.71	9.34	3.5	A	1138	1707
B - Manby Road	0.27	3.25	0.5	A	435	652
C - Port Service Access	0.03	9.04	0.1	A	17	26
D - A160	0.45	4.97	1.3	A	774	1162
E - Conco Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	934	233	264	1984	0.471	928	570	0.0	1.3	4.888	A
B - Manby Road	357	89	638	2085	0.171	356	554	0.0	0.3	2.615	A
C - Port Service Access	14	4	986	838	0.017	14	7	0.0	0.0	7.002	A
D - A160	635	159	205	2110	0.301	633	796	0.0	0.7	3.793	A
E - Conco Access	0	0	834	1977	0.000	0	4	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1115	279	316	1956	0.570	1112	682	1.3	1.9	6.119	A
B - Manby Road	426	107	764	2013	0.212	426	664	0.3	0.3	2.851	A
C - Port Service Access	17	4	1181	763	0.022	17	9	0.0	0.0	7.736	A
D - A160	759	190	245	2088	0.363	758	953	0.7	0.9	4.214	A
E - Conco Access	0	0	999	1889	0.000	0	4	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1365	341	387	1920	0.711	1359	835	1.9	3.4	9.144	A
B - Manby Road	522	130	934	1915	0.273	521	812	0.3	0.5	3.247	A
C - Port Service Access	21	5	1444	661	0.032	21	11	0.0	0.1	9.012	A
D - A160	929	232	300	2059	0.451	928	1165	0.9	1.3	4.950	A
E - Conco Access	0	0	1222	1768	0.000	0	5	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1365	341	388	1919	0.711	1365	837	3.4	3.5	9.340	A
B - Manby Road	522	130	938	1913	0.273	522	815	0.5	0.5	3.252	A
C - Port Service Access	21	5	1449	659	0.032	21	11	0.1	0.1	9.038	A
D - A160	929	232	301	2059	0.451	929	1169	1.3	1.3	4.965	A
E - Conco Access	0	0	1224	1767	0.000	0	6	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1115	279	317	1956	0.570	1121	685	3.5	1.9	6.250	A
B - Manby Road	426	107	770	2009	0.212	427	668	0.5	0.3	2.861	A
C - Port Service Access	17	4	1188	760	0.022	17	9	0.1	0.0	7.766	A
D - A160	759	190	246	2088	0.363	760	959	1.3	0.9	4.230	A
E - Conco Access	0	0	1002	1887	0.000	0	5	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	934	233	265	1983	0.471	936	573	1.9	1.3	4.964	A
B - Manby Road	357	89	643	2082	0.171	357	558	0.3	0.3	2.624	A
C - Port Service Access	14	4	993	836	0.017	14	8	0.0	0.0	7.027	A
D - A160	635	159	206	2109	0.301	636	801	0.9	0.7	3.810	A
E - Conco Access	0	0	838	1975	0.000	0	4	0.0	0.0	0.000	A

2025 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	5.54	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.54	A

Traffic Demand

Demand Set 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	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	864	100.000
B - Manby Road		ONE HOUR	✓	890	100.000
C - Port Service Access		ONE HOUR	✓	15	100.000
D - A160		ONE HOUR	✓	939	100.000
E - Conco Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	21	120	2	721	0
	B - Manby Road	549	6	2	333	0
	C - Port Service Access	10	0	0	5	0
	D - A160	664	245	7	18	5
	E - Conco Access	0	0	0	0	0

Vehicle Mix

HV %s

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	38	25	100	91	0
	B - Manby Road	17	67	100	20	0
	C - Port Service Access	100	0	0	100	0
	D - A160	45	18	100	67	100
	E - Conco Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.48	6.28	1.6	A	793	1189
B - Manby Road	0.50	4.33	1.2	A	817	1225
C - Port Service Access	0.03	14.36	0.1	B	14	21
D - A160	0.55	5.87	1.7	A	862	1292
E - Conco Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	650	163	207	2013	0.323	647	933	0.0	0.8	4.638	A
B - Manby Road	670	168	576	2121	0.316	668	278	0.0	0.5	2.931	A
C - Port Service Access	11	3	1236	742	0.015	11	8	0.0	0.0	9.852	A
D - A160	707	177	440	1986	0.356	704	807	0.0	0.8	3.859	A
E - Conco Access	0	0	1140	1813	0.000	0	4	0.0	0.0	0.000	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	777	194	248	1992	0.390	776	1117	0.8	1.1	5.217	A
B - Manby Road	800	200	690	2055	0.389	799	333	0.5	0.8	3.394	A
C - Port Service Access	13	3	1480	647	0.021	13	10	0.0	0.0	11.357	B
D - A160	844	211	526	1940	0.435	843	967	0.8	1.1	4.511	A
E - Conco Access	0	0	1365	1692	0.000	0	4	0.0	0.0	0.000	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	951	238	303	1963	0.485	949	1367	1.1	1.6	6.251	A
B - Manby Road	980	245	845	1966	0.498	978	408	0.8	1.2	4.310	A
C - Port Service Access	17	4	1811	519	0.032	16	12	0.0	0.1	14.320	B
D - A160	1034	258	644	1878	0.551	1031	1183	1.1	1.7	5.837	A
E - Conco Access	0	0	1670	1527	0.000	0	5	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	951	238	304	1963	0.485	951	1370	1.6	1.6	6.278	A
B - Manby Road	980	245	847	1965	0.499	980	408	1.2	1.2	4.328	A
C - Port Service Access	17	4	1814	518	0.032	17	12	0.1	0.1	14.361	B
D - A160	1034	258	645	1877	0.551	1034	1186	1.7	1.7	5.873	A
E - Conco Access	0	0	1673	1526	0.000	0	6	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	777	194	249	1992	0.390	779	1121	1.6	1.1	5.245	A
B - Manby Road	800	200	693	2053	0.390	802	334	1.2	0.8	3.410	A
C - Port Service Access	13	3	1485	645	0.021	14	10	0.1	0.0	11.399	B
D - A160	844	211	528	1939	0.435	847	971	1.7	1.1	4.544	A
E - Conco Access	0	0	1370	1689	0.000	0	5	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	650	163	208	2013	0.323	652	938	1.1	0.8	4.670	A
B - Manby Road	670	168	580	2119	0.316	671	280	0.8	0.6	2.946	A
C - Port Service Access	11	3	1243	739	0.015	11	8	0.0	0.0	9.892	A
D - A160	707	177	442	1985	0.356	708	812	1.1	0.8	3.884	A
E - Conco Access	0	0	1146	1809	0.000	0	4	0.0	0.0	0.000	A

2025 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	8.97	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.97	A

Traffic Demand

Demand Set 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	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	1395	100.000
B - Manby Road		ONE HOUR	✓	519	100.000
C - Port Service Access		ONE HOUR	✓	19	100.000
D - A160		ONE HOUR	✓	887	100.000
E - Conco Access		ONE HOUR	✓	4	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	85	521	0	789	0
	B - Manby Road	211	13	2	293	0
	C - Port Service Access	0	7	0	12	0
	D - A160	516	350	8	8	5
	E - Conco Access	0	2	0	2	0

Vehicle Mix

HV %s

		To				
From		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
	A - Humber Road	31	16	0	57	0
	B - Manby Road	28	9	100	19	0
	C - Port Service Access	0	50	0	67	0
	D - A160	89	17	75	40	100
	E - Conco Access	0	0	0	100	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.81	13.48	5.6	B	1280	1920
B - Manby Road	0.30	3.34	0.5	A	476	714
C - Port Service Access	0.03	9.57	0.1	A	17	26
D - A160	0.48	5.16	1.4	A	814	1221
E - Conco Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1050	263	289	1970	0.533	1044	609	0.0	1.5	5.299	A
B - Manby Road	391	98	666	2069	0.189	390	667	0.0	0.3	2.623	A
C - Port Service Access	14	4	1048	814	0.018	14	7	0.0	0.0	7.211	A
D - A160	668	167	237	2093	0.319	665	825	0.0	0.7	3.815	A
E - Conco Access	0	0	898	1943	0.000	0	4	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1254	314	347	1941	0.646	1250	729	1.5	2.5	7.119	A
B - Manby Road	467	117	798	1993	0.234	466	799	0.3	0.4	2.885	A
C - Port Service Access	17	4	1255	734	0.023	17	9	0.0	0.0	8.045	A
D - A160	797	199	284	2068	0.386	796	988	0.7	0.9	4.291	A
E - Conco Access	0	0	1076	1847	0.000	0	4	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1536	384	424	1900	0.808	1524	892	2.5	5.4	12.752	B
B - Manby Road	571	143	972	1893	0.302	571	976	0.4	0.5	3.332	A
C - Port Service Access	21	5	1532	627	0.033	21	11	0.0	0.1	9.519	A
D - A160	977	244	347	2035	0.480	975	1206	0.9	1.4	5.143	A
E - Conco Access	0	0	1316	1718	0.000	0	5	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1536	384	425	1900	0.809	1535	894	5.4	5.6	13.479	B
B - Manby Road	571	143	979	1889	0.303	571	981	0.5	0.5	3.344	A
C - Port Service Access	21	5	1540	624	0.034	21	11	0.1	0.1	9.567	A
D - A160	977	244	348	2034	0.480	977	1213	1.4	1.4	5.161	A
E - Conco Access	0	0	1319	1716	0.000	0	6	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1254	314	348	1940	0.646	1266	732	5.6	2.6	7.460	A
B - Manby Road	467	117	808	1988	0.235	467	806	0.5	0.4	2.899	A
C - Port Service Access	17	4	1266	730	0.023	17	9	0.1	0.0	8.095	A
D - A160	797	199	285	2067	0.386	799	998	1.4	1.0	4.310	A
E - Conco Access	0	0	1080	1845	0.000	0	5	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1050	263	291	1970	0.533	1054	612	2.6	1.6	5.419	A
B - Manby Road	391	98	673	2065	0.189	391	673	0.4	0.3	2.634	A
C - Port Service Access	14	4	1056	811	0.018	14	8	0.0	0.0	7.240	A
D - A160	668	167	238	2092	0.319	669	832	1.0	0.7	3.840	A
E - Conco Access	0	0	903	1940	0.000	0	4	0.0	0.0	0.000	A

2025 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	5.72	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.72	A

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	886	100.000
B - Manby Road		ONE HOUR	✓	894	100.000
C - Port Service Access		ONE HOUR	✓	15	100.000
D - A160		ONE HOUR	✓	970	100.000
E - Conco Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	21	124	2	739	0
	B - Manby Road	553	6	2	333	0
	C - Port Service Access	10	0	0	5	0
	D - A160	695	245	7	18	5
	E - Conco Access	0	0	0	0	0

Vehicle Mix

HV %s

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	38	24	100	90	0
	B - Manby Road	17	67	100	20	0
	C - Port Service Access	100	0	0	100	0
	D - A160	46	18	100	67	100
	E - Conco Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.50	6.39	1.7	A	813	1220
B - Manby Road	0.50	4.40	1.2	A	820	1231
C - Port Service Access	0.03	14.63	0.1	B	14	21
D - A160	0.57	6.18	1.8	A	890	1335
E - Conco Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	667	167	207	2013	0.331	664	959	0.0	0.9	4.667	A
B - Manby Road	673	168	589	2113	0.319	671	281	0.0	0.6	2.953	A
C - Port Service Access	11	3	1252	736	0.015	11	8	0.0	0.0	9.939	A
D - A160	730	183	443	1984	0.368	727	821	0.0	0.8	3.957	A
E - Conco Access	0	0	1166	1799	0.000	0	4	0.0	0.0	0.000	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	796	199	248	1992	0.400	795	1148	0.9	1.2	5.270	A
B - Manby Road	804	201	706	2046	0.393	803	337	0.6	0.8	3.429	A
C - Port Service Access	13	3	1499	640	0.021	13	10	0.0	0.0	11.496	B
D - A160	872	218	530	1938	0.450	871	983	0.8	1.1	4.665	A
E - Conco Access	0	0	1396	1675	0.000	0	4	0.0	0.0	0.000	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	976	244	303	1963	0.497	973	1405	1.2	1.7	6.364	A
B - Manby Road	984	246	865	1955	0.504	983	412	0.8	1.2	4.378	A
C - Port Service Access	17	4	1835	510	0.032	16	12	0.0	0.1	14.592	B
D - A160	1068	267	648	1876	0.569	1065	1203	1.1	1.8	6.132	A
E - Conco Access	0	0	1708	1507	0.000	0	5	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	976	244	304	1963	0.497	975	1408	1.7	1.7	6.394	A
B - Manby Road	984	246	866	1954	0.504	984	413	1.2	1.2	4.398	A
C - Port Service Access	17	4	1839	508	0.032	17	12	0.1	0.1	14.635	B
D - A160	1068	267	650	1875	0.570	1068	1206	1.8	1.8	6.177	A
E - Conco Access	0	0	1712	1505	0.000	0	6	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	796	199	249	1992	0.400	799	1153	1.7	1.2	5.302	A
B - Manby Road	804	201	709	2044	0.393	805	338	1.2	0.8	3.448	A
C - Port Service Access	13	3	1505	638	0.021	14	10	0.1	0.0	11.538	B
D - A160	872	218	532	1937	0.450	875	987	1.8	1.1	4.703	A
E - Conco Access	0	0	1402	1672	0.000	0	5	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	667	167	208	2013	0.331	668	964	1.2	0.9	4.701	A
B - Manby Road	673	168	594	2111	0.319	674	283	0.8	0.6	2.971	A
C - Port Service Access	11	3	1259	733	0.015	11	8	0.0	0.0	9.980	A
D - A160	730	183	445	1983	0.368	732	826	1.1	0.8	3.989	A
E - Conco Access	0	0	1173	1795	0.000	0	4	0.0	0.0	0.000	A

2025 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	9.65	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.65	A

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	1423	100.000
B - Manby Road		ONE HOUR	✓	523	100.000
C - Port Service Access		ONE HOUR	✓	19	100.000
D - A160		ONE HOUR	✓	927	100.000
E - Conco Access		ONE HOUR	✓	4	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	85	525	0	813	0
	B - Manby Road	215	13	2	293	0
	C - Port Service Access	0	7	0	12	0
	D - A160	556	350	8	8	5
	E - Conco Access	0	2	0	2	0

Vehicle Mix

HV %s

		To				
From		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
	A - Humber Road	31	15	0	58	0
	B - Manby Road	27	9	100	19	0
	C - Port Service Access	0	50	0	67	0
	D - A160	88	17	75	40	100
	E - Conco Access	0	0	0	100	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.82	14.70	6.2	B	1306	1959
B - Manby Road	0.31	3.39	0.5	A	480	720
C - Port Service Access	0.03	9.76	0.1	A	17	26
D - A160	0.50	5.43	1.5	A	851	1276
E - Conco Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1071	268	289	1970	0.544	1065	642	0.0	1.6	5.424	A
B - Manby Road	394	98	684	2059	0.191	393	670	0.0	0.3	2.636	A
C - Port Service Access	14	4	1069	806	0.018	14	7	0.0	0.0	7.285	A
D - A160	698	174	240	2091	0.334	695	843	0.0	0.8	3.924	A
E - Conco Access	0	0	931	1925	0.000	0	4	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1279	320	347	1941	0.659	1275	769	1.6	2.6	7.388	A
B - Manby Road	470	118	819	1981	0.237	470	803	0.3	0.4	2.908	A
C - Port Service Access	17	4	1280	725	0.024	17	9	0.0	0.0	8.155	A
D - A160	833	208	287	2066	0.403	832	1010	0.8	1.0	4.447	A
E - Conco Access	0	0	1115	1826	0.000	0	4	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1567	392	424	1900	0.825	1553	940	2.6	5.9	13.749	B
B - Manby Road	576	144	998	1878	0.307	575	980	0.4	0.5	3.371	A
C - Port Service Access	21	5	1562	616	0.034	21	11	0.0	0.1	9.703	A
D - A160	1021	255	351	2032	0.502	1019	1232	1.0	1.5	5.406	A
E - Conco Access	0	0	1364	1692	0.000	0	5	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1567	392	425	1900	0.825	1566	942	5.9	6.2	14.701	B
B - Manby Road	576	144	1006	1873	0.307	576	985	0.5	0.5	3.385	A
C - Port Service Access	21	5	1571	612	0.034	21	11	0.1	0.1	9.759	A
D - A160	1021	255	352	2032	0.502	1021	1239	1.5	1.5	5.430	A
E - Conco Access	0	0	1367	1690	0.000	0	6	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1279	320	348	1940	0.659	1293	772	6.2	2.7	7.803	A
B - Manby Road	470	118	830	1974	0.238	471	810	0.5	0.4	2.925	A
C - Port Service Access	17	4	1292	720	0.024	17	9	0.1	0.0	8.213	A
D - A160	833	208	289	2065	0.404	835	1021	1.5	1.0	4.471	A
E - Conco Access	0	0	1120	1823	0.000	0	5	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1071	268	291	1970	0.544	1076	645	2.7	1.7	5.559	A
B - Manby Road	394	98	691	2055	0.192	394	676	0.4	0.3	2.648	A
C - Port Service Access	14	4	1077	803	0.018	14	8	0.0	0.0	7.318	A
D - A160	698	174	241	2090	0.334	699	850	1.0	0.8	3.951	A
E - Conco Access	0	0	937	1922	0.000	0	4	0.0	0.0	0.000	A

2032 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	5.61	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.61	A

Traffic Demand

Demand Set 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	2032 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	877	100.000
B - Manby Road		ONE HOUR	✓	812	100.000
C - Port Service Access		ONE HOUR	✓	15	100.000
D - A160		ONE HOUR	✓	947	100.000
E - Conco Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	21	96	3	757	0
	B - Manby Road	474	6	3	329	0
	C - Port Service Access	10	0	0	5	0
	D - A160	665	250	8	19	5
	E - Conco Access	0	0	0	0	0

Vehicle Mix

HV %s

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	42	38	100	92	0
	B - Manby Road	22	67	100	22	0
	C - Port Service Access	100	0	0	100	0
	D - A160	48	19	100	67	100
	E - Conco Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.49	6.62	1.8	A	805	1207
B - Manby Road	0.46	4.21	1.0	A	745	1118
C - Port Service Access	0.03	13.87	0.1	B	14	21
D - A160	0.54	5.73	1.6	A	869	1303
E - Conco Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	660	165	212	2011	0.328	657	877	0.0	0.9	4.844	A
B - Manby Road	611	153	605	2104	0.291	609	264	0.0	0.5	2.944	A
C - Port Service Access	11	3	1204	754	0.015	11	10	0.0	0.0	9.689	A
D - A160	713	178	383	2015	0.354	710	832	0.0	0.8	3.848	A
E - Conco Access	0	0	1090	1840	0.000	0	4	0.0	0.0	0.000	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	788	197	254	1989	0.396	787	1051	0.9	1.2	5.466	A
B - Manby Road	730	182	725	2035	0.359	729	316	0.5	0.7	3.373	A
C - Port Service Access	13	3	1442	662	0.020	13	13	0.0	0.0	11.101	B
D - A160	851	213	459	1975	0.431	850	996	0.8	1.0	4.468	A
E - Conco Access	0	0	1305	1724	0.000	0	4	0.0	0.0	0.000	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	966	241	311	1959	0.493	963	1286	1.2	1.8	6.589	A
B - Manby Road	894	224	888	1942	0.460	893	387	0.7	1.0	4.197	A
C - Port Service Access	17	4	1765	537	0.031	16	15	0.0	0.1	13.828	B
D - A160	1043	261	562	1921	0.543	1040	1220	1.0	1.6	5.699	A
E - Conco Access	0	0	1596	1567	0.000	0	5	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	966	241	312	1959	0.493	966	1288	1.8	1.8	6.619	A
B - Manby Road	894	224	890	1940	0.461	894	388	1.0	1.0	4.211	A
C - Port Service Access	17	4	1768	536	0.031	17	15	0.1	0.1	13.866	B
D - A160	1043	261	563	1921	0.543	1043	1222	1.6	1.6	5.731	A
E - Conco Access	0	0	1600	1565	0.000	0	6	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	788	197	255	1988	0.397	791	1054	1.8	1.2	5.502	A
B - Manby Road	730	182	728	2033	0.359	731	317	1.0	0.7	3.388	A
C - Port Service Access	13	3	1447	660	0.020	14	13	0.1	0.0	11.141	B
D - A160	851	213	460	1975	0.431	854	1000	1.6	1.1	4.498	A
E - Conco Access	0	0	1309	1721	0.000	0	5	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	660	165	213	2010	0.328	661	882	1.2	0.9	4.882	A
B - Manby Road	611	153	609	2102	0.291	612	265	0.7	0.5	2.961	A
C - Port Service Access	11	3	1211	751	0.015	11	11	0.0	0.0	9.728	A
D - A160	713	178	385	2014	0.354	714	837	1.1	0.8	3.874	A
E - Conco Access	0	0	1096	1836	0.000	0	4	0.0	0.0	0.000	A

2032 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	7.92	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.92	A

Traffic Demand

Demand Set 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	2032 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	1319	100.000
B - Manby Road		ONE HOUR	✓	505	100.000
C - Port Service Access		ONE HOUR	✓	19	100.000
D - A160		ONE HOUR	✓	897	100.000
E - Conco Access		ONE HOUR	✓	5	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	80	430	0	809	0
	B - Manby Road	188	14	3	300	0
	C - Port Service Access	0	7	0	12	0
	D - A160	539	336	9	8	5
	E - Conco Access	0	2	0	3	0

Vehicle Mix

HV %s

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	37	21	0	61	0
	B - Manby Road	37	9	100	20	0
	C - Port Service Access	0	50	0	67	0
	D - A160	91	20	75	40	100
	E - Conco Access	0	0	0	100	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.76	11.44	4.5	B	1210	1816
B - Manby Road	0.30	3.43	0.5	A	463	695
C - Port Service Access	0.03	9.59	0.1	A	17	26
D - A160	0.48	5.28	1.4	A	823	1235
E - Conco Access	0.00	2.99	0.0	A	5	7

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	993	248	284	1973	0.503	987	605	0.0	1.4	5.227	A
B - Manby Road	380	95	680	2061	0.184	379	591	0.0	0.3	2.691	A
C - Port Service Access	14	4	1050	814	0.018	14	9	0.0	0.0	7.219	A
D - A160	675	169	217	2103	0.321	672	848	0.0	0.7	3.913	A
E - Conco Access	4	0.94	885	1950	0.002	4	4	0.0	0.0	2.642	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1186	296	340	1944	0.610	1183	725	1.4	2.2	6.782	A
B - Manby Road	454	113	815	1983	0.229	454	708	0.3	0.4	2.959	A
C - Port Service Access	17	4	1258	733	0.023	17	11	0.0	0.0	8.058	A
D - A160	806	202	259	2081	0.388	805	1016	0.7	1.0	4.393	A
E - Conco Access	4	1	1060	1855	0.002	4	4	0.0	0.0	2.778	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1452	363	417	1904	0.763	1443	887	2.2	4.4	11.041	B
B - Manby Road	556	139	995	1880	0.296	555	865	0.4	0.5	3.416	A
C - Port Service Access	21	5	1537	625	0.033	21	13	0.0	0.1	9.548	A
D - A160	988	247	317	2050	0.482	986	1241	1.0	1.4	5.263	A
E - Conco Access	6	1	1298	1728	0.003	6	5	0.0	0.0	2.985	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1452	363	417	1904	0.763	1452	888	4.4	4.5	11.438	B
B - Manby Road	556	139	1001	1876	0.296	556	869	0.5	0.5	3.427	A
C - Port Service Access	21	5	1543	623	0.034	21	13	0.1	0.1	9.588	A
D - A160	988	247	318	2050	0.482	988	1246	1.4	1.4	5.281	A
E - Conco Access	6	1	1300	1726	0.003	6	6	0.0	0.0	2.987	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1186	296	341	1943	0.610	1195	727	4.5	2.3	7.001	A
B - Manby Road	454	113	823	1979	0.229	455	713	0.5	0.4	2.973	A
C - Port Service Access	17	4	1267	730	0.023	17	11	0.1	0.0	8.099	A
D - A160	806	202	261	2080	0.388	808	1024	1.4	1.0	4.416	A
E - Conco Access	4	1	1064	1853	0.002	4	5	0.0	0.0	2.781	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	993	248	286	1972	0.503	996	608	2.3	1.5	5.327	A
B - Manby Road	380	95	687	2057	0.185	381	595	0.4	0.3	2.700	A
C - Port Service Access	14	4	1058	811	0.018	14	9	0.0	0.0	7.250	A
D - A160	675	169	218	2103	0.321	676	854	1.0	0.7	3.936	A
E - Conco Access	4	0.94	890	1947	0.002	4	4	0.0	0.0	2.646	A

2032 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	6.06	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.06	A

Traffic Demand

Demand Set 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	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	919	100.000
B - Manby Road		ONE HOUR	✓	941	100.000
C - Port Service Access		ONE HOUR	✓	15	100.000
D - A160		ONE HOUR	✓	998	100.000
E - Conco Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	22	126	3	768	0
	B - Manby Road	579	6	3	353	0
	C - Port Service Access	10	0	0	5	0
	D - A160	706	260	8	19	5
	E - Conco Access	0	0	0	0	0

Vehicle Mix

HV %s

		To				
From		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
	A - Humber Road	38	25	100	91	0
	B - Manby Road	17	67	100	20	0
	C - Port Service Access	100	0	0	100	0
	D - A160	45	18	100	67	100
	E - Conco Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.52	6.75	1.9	A	843	1265
B - Manby Road	0.54	4.76	1.4	A	863	1295
C - Port Service Access	0.03	15.68	0.1	C	14	21
D - A160	0.59	6.51	2.0	A	916	1374
E - Conco Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	692	173	220	2007	0.345	688	987	0.0	0.9	4.808	A
B - Manby Road	708	177	614	2099	0.338	706	294	0.0	0.6	3.057	A
C - Port Service Access	11	3	1310	713	0.016	11	10	0.0	0.0	10.254	B
D - A160	751	188	463	1973	0.381	748	858	0.0	0.8	4.033	A
E - Conco Access	0	0	1207	1776	0.000	0	4	0.0	0.0	0.000	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	826	207	263	1984	0.416	825	1182	0.9	1.2	5.479	A
B - Manby Road	846	211	736	2029	0.417	845	352	0.6	0.8	3.599	A
C - Port Service Access	13	3	1568	613	0.022	13	13	0.0	0.0	12.008	B
D - A160	897	224	554	1925	0.466	896	1028	0.8	1.2	4.805	A
E - Conco Access	0	0	1445	1648	0.000	0	4	0.0	0.0	0.000	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1012	253	322	1954	0.518	1009	1446	1.2	1.9	6.716	A
B - Manby Road	1036	259	901	1934	0.536	1034	430	0.8	1.4	4.729	A
C - Port Service Access	17	4	1919	477	0.035	16	15	0.0	0.1	15.621	C
D - A160	1099	275	678	1860	0.591	1096	1258	1.2	2.0	6.458	A
E - Conco Access	0	0	1768	1475	0.000	0	5	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1012	253	323	1953	0.518	1012	1450	1.9	1.9	6.754	A
B - Manby Road	1036	259	903	1933	0.536	1036	432	1.4	1.4	4.756	A
C - Port Service Access	17	4	1923	476	0.035	17	15	0.1	0.1	15.681	C
D - A160	1099	275	679	1859	0.591	1099	1261	2.0	2.0	6.515	A
E - Conco Access	0	0	1773	1472	0.000	0	6	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	826	207	264	1983	0.417	829	1187	1.9	1.3	5.518	A
B - Manby Road	846	211	739	2027	0.417	848	354	1.4	0.9	3.626	A
C - Port Service Access	13	3	1575	611	0.022	14	13	0.1	0.0	12.061	B
D - A160	897	224	556	1924	0.466	900	1032	2.0	1.2	4.852	A
E - Conco Access	0	0	1452	1645	0.000	0	5	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	692	173	221	2006	0.345	693	993	1.3	0.9	4.847	A
B - Manby Road	708	177	619	2096	0.338	709	296	0.9	0.6	3.076	A
C - Port Service Access	11	3	1317	710	0.016	11	11	0.0	0.0	10.304	B
D - A160	751	188	465	1972	0.381	753	864	1.2	0.9	4.067	A
E - Conco Access	0	0	1214	1773	0.000	0	4	0.0	0.0	0.000	A

2032 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	11.59	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.59	B

Traffic Demand

Demand Set 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	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	1474	100.000
B - Manby Road		ONE HOUR	✓	551	100.000
C - Port Service Access		ONE HOUR	✓	19	100.000
D - A160		ONE HOUR	✓	942	100.000
E - Conco Access		ONE HOUR	✓	5	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	89	547	0	838	0
	B - Manby Road	222	14	3	312	0
	C - Port Service Access	0	7	0	12	0
	D - A160	549	371	9	8	5
	E - Conco Access	0	2	0	3	0

Vehicle Mix

HV %s

		To				
From		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
	A - Humber Road	31	16	0	57	0
	B - Manby Road	28	9	100	19	0
	C - Port Service Access	0	50	0	67	0
	D - A160	89	17	75	40	100
	E - Conco Access	0	0	0	100	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.86	18.52	8.0	C	1353	2029
B - Manby Road	0.33	3.54	0.6	A	506	758
C - Port Service Access	0.04	10.19	0.1	B	17	26
D - A160	0.51	5.53	1.6	A	864	1297
E - Conco Access	0.00	3.08	0.0	A	5	7

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1110	277	310	1959	0.566	1103	645	0.0	1.8	5.724	A
B - Manby Road	415	104	708	2045	0.203	414	705	0.0	0.3	2.702	A
C - Port Service Access	14	4	1113	789	0.018	14	9	0.0	0.0	7.445	A
D - A160	709	177	249	2086	0.340	706	878	0.0	0.8	3.948	A
E - Conco Access	4	0.94	951	1914	0.002	4	4	0.0	0.0	2.691	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1325	331	372	1927	0.687	1320	772	1.8	2.9	8.081	A
B - Manby Road	495	124	848	1964	0.252	495	844	0.3	0.4	3.000	A
C - Port Service Access	17	4	1333	704	0.024	17	11	0.0	0.0	8.396	A
D - A160	847	212	298	2060	0.411	846	1052	0.8	1.0	4.493	A
E - Conco Access	4	1	1139	1813	0.002	4	4	0.0	0.0	2.843	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1623	406	455	1884	0.861	1605	944	2.9	7.5	16.678	C
B - Manby Road	607	152	1031	1859	0.326	606	1028	0.4	0.6	3.516	A
C - Port Service Access	21	5	1624	592	0.035	21	13	0.0	0.1	10.110	B
D - A160	1037	259	364	2026	0.512	1035	1281	1.0	1.6	5.503	A
E - Conco Access	6	1	1394	1676	0.003	6	5	0.0	0.0	3.077	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1623	406	456	1884	0.862	1621	947	7.5	8.0	18.524	C
B - Manby Road	607	152	1042	1853	0.327	607	1035	0.6	0.6	3.536	A
C - Port Service Access	21	5	1635	587	0.036	21	13	0.1	0.1	10.189	B
D - A160	1037	259	365	2025	0.512	1037	1290	1.6	1.6	5.529	A
E - Conco Access	6	1	1397	1674	0.003	6	6	0.0	0.0	3.081	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1325	331	373	1927	0.688	1345	776	8.0	3.1	8.761	A
B - Manby Road	495	124	864	1955	0.253	496	854	0.6	0.4	3.024	A
C - Port Service Access	17	4	1349	698	0.024	17	11	0.1	0.0	8.476	A
D - A160	847	212	300	2059	0.411	849	1066	1.6	1.1	4.521	A
E - Conco Access	4	1	1144	1810	0.002	4	5	0.0	0.0	2.849	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1110	277	312	1958	0.567	1115	649	3.1	1.8	5.895	A
B - Manby Road	415	104	716	2040	0.203	415	711	0.4	0.3	2.715	A
C - Port Service Access	14	4	1122	786	0.018	14	9	0.0	0.0	7.484	A
D - A160	709	177	250	2085	0.340	710	886	1.1	0.8	3.974	A
E - Conco Access	4	0.94	957	1911	0.002	4	4	0.0	0.0	2.698	A

2032 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	6.27	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.27	A

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	941	100.000
B - Manby Road		ONE HOUR	✓	945	100.000
C - Port Service Access		ONE HOUR	✓	15	100.000
D - A160		ONE HOUR	✓	1028	100.000
E - Conco Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	22	130	3	786	0
	B - Manby Road	583	6	3	353	0
	C - Port Service Access	10	0	0	5	0
	D - A160	736	260	8	19	5
	E - Conco Access	0	0	0	0	0

Vehicle Mix

HV %s

		To				
From		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
	A - Humber Road	38	24	100	90	0
	B - Manby Road	17	67	100	20	0
	C - Port Service Access	100	0	0	100	0
	D - A160	46	18	100	67	100
	E - Conco Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.53	6.89	2.0	A	863	1295
B - Manby Road	0.54	4.84	1.4	A	867	1301
C - Port Service Access	0.04	16.01	0.1	C	14	21
D - A160	0.61	6.87	2.1	A	943	1415
E - Conco Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	708	177	220	2007	0.353	705	1013	0.0	1.0	4.841	A
B - Manby Road	711	178	628	2091	0.340	709	297	0.0	0.6	3.080	A
C - Port Service Access	11	3	1326	707	0.016	11	10	0.0	0.0	10.348	B
D - A160	774	193	466	1972	0.392	770	871	0.0	0.9	4.138	A
E - Conco Access	0	0	1232	1763	0.000	0	4	0.0	0.0	0.000	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	846	211	263	1984	0.426	845	1213	1.0	1.3	5.539	A
B - Manby Road	850	212	752	2020	0.421	849	355	0.6	0.9	3.639	A
C - Port Service Access	13	3	1588	605	0.022	13	13	0.0	0.0	12.162	B
D - A160	924	231	558	1923	0.480	923	1044	0.9	1.3	4.974	A
E - Conco Access	0	0	1476	1632	0.000	0	4	0.0	0.0	0.000	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1036	259	322	1954	0.530	1033	1484	1.3	2.0	6.850	A
B - Manby Road	1040	260	920	1923	0.541	1038	435	0.9	1.4	4.811	A
C - Port Service Access	17	4	1943	468	0.035	16	15	0.0	0.1	15.942	C
D - A160	1132	283	682	1858	0.609	1128	1277	1.3	2.1	6.794	A
E - Conco Access	0	0	1805	1455	0.000	0	5	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1036	259	323	1953	0.530	1036	1487	2.0	2.0	6.891	A
B - Manby Road	1040	260	923	1921	0.542	1040	436	1.4	1.4	4.841	A
C - Port Service Access	17	4	1948	466	0.035	17	15	0.1	0.1	16.008	C
D - A160	1132	283	684	1857	0.610	1132	1280	2.1	2.1	6.872	A
E - Conco Access	0	0	1810	1452	0.000	0	6	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	846	211	264	1983	0.427	849	1218	2.0	1.3	5.583	A
B - Manby Road	850	212	756	2017	0.421	852	357	1.4	0.9	3.667	A
C - Port Service Access	13	3	1595	603	0.022	14	13	0.1	0.0	12.221	B
D - A160	924	231	560	1922	0.481	928	1049	2.1	1.3	5.029	A
E - Conco Access	0	0	1483	1628	0.000	0	5	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	708	177	221	2006	0.353	710	1019	1.3	1.0	4.883	A
B - Manby Road	711	178	632	2089	0.341	712	299	0.9	0.6	3.103	A
C - Port Service Access	11	3	1334	704	0.016	11	11	0.0	0.0	10.400	B
D - A160	774	193	468	1971	0.393	776	877	1.3	0.9	4.176	A
E - Conco Access	0	0	1240	1759	0.000	0	4	0.0	0.0	0.000	A

2032 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	12.78	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.78	B

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	1502	100.000
B - Manby Road		ONE HOUR	✓	556	100.000
C - Port Service Access		ONE HOUR	✓	19	100.000
D - A160		ONE HOUR	✓	982	100.000
E - Conco Access		ONE HOUR	✓	5	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	89	551	0	862	0
	B - Manby Road	227	14	3	312	0
	C - Port Service Access	0	7	0	12	0
	D - A160	589	371	9	8	5
	E - Conco Access	0	2	0	3	0

Vehicle Mix

HV %s

		To				
From		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
	A - Humber Road	31	15	0	58	0
	B - Manby Road	27	9	100	19	0
	C - Port Service Access	0	50	0	67	0
	D - A160	88	17	75	40	100
	E - Conco Access	0	0	0	100	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.88	20.78	9.1	C	1378	2067
B - Manby Road	0.33	3.59	0.6	A	510	765
C - Port Service Access	0.04	10.41	0.1	B	17	26
D - A160	0.53	5.84	1.7	A	901	1352
E - Conco Access	0.00	3.13	0.0	A	5	7

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1131	283	310	1959	0.577	1123	678	0.0	1.8	5.868	A
B - Manby Road	419	105	726	2034	0.206	417	707	0.0	0.3	2.719	A
C - Port Service Access	14	4	1135	781	0.018	14	9	0.0	0.0	7.526	A
D - A160	739	185	253	2084	0.355	736	896	0.0	0.8	4.063	A
E - Conco Access	4	0.94	985	1896	0.002	4	4	0.0	0.0	2.717	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1350	338	372	1927	0.701	1345	812	1.8	3.1	8.424	A
B - Manby Road	500	125	870	1952	0.256	499	847	0.3	0.4	3.027	A
C - Port Service Access	17	4	1358	694	0.025	17	11	0.0	0.0	8.520	A
D - A160	883	221	302	2058	0.429	882	1073	0.8	1.1	4.663	A
E - Conco Access	4	1	1180	1791	0.003	4	4	0.0	0.0	2.877	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1654	413	455	1884	0.878	1632	993	3.1	8.5	18.269	C
B - Manby Road	612	153	1055	1845	0.332	611	1032	0.4	0.6	3.563	A
C - Port Service Access	21	5	1654	580	0.036	21	13	0.0	0.1	10.319	B
D - A160	1081	270	369	2023	0.535	1079	1305	1.1	1.7	5.804	A
E - Conco Access	6	1	1443	1650	0.003	6	5	0.0	0.0	3.127	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1654	413	456	1884	0.878	1651	996	8.5	9.1	20.784	C
B - Manby Road	612	153	1068	1838	0.333	612	1040	0.6	0.6	3.586	A
C - Port Service Access	21	5	1666	575	0.036	21	13	0.1	0.1	10.413	B
D - A160	1081	270	371	2022	0.535	1081	1317	1.7	1.7	5.837	A
E - Conco Access	6	1	1447	1648	0.003	6	6	0.0	0.0	3.131	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1350	338	373	1927	0.701	1373	817	9.1	3.3	9.290	A
B - Manby Road	500	125	888	1942	0.257	501	859	0.6	0.4	3.054	A
C - Port Service Access	17	4	1377	687	0.025	17	11	0.1	0.0	8.617	A
D - A160	883	221	305	2057	0.429	885	1090	1.7	1.2	4.697	A
E - Conco Access	4	1	1185	1788	0.003	4	5	0.0	0.0	2.884	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1131	283	312	1958	0.577	1136	683	3.3	1.9	6.062	A
B - Manby Road	419	105	735	2030	0.206	419	714	0.4	0.3	2.729	A
C - Port Service Access	14	4	1145	777	0.018	14	9	0.0	0.0	7.565	A
D - A160	739	185	254	2083	0.355	741	905	1.2	0.8	4.092	A
E - Conco Access	4	0.94	991	1893	0.002	4	4	0.0	0.0	2.722	A

Appendix TN2 L

A160/ Humber Road/ Manby Road Average Flows Junction Assessment Results

<h1>Junctions 10</h1>
<h2>ARCADY 10 - Roundabout Module</h2>
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Filename: A160-Humber Road-Manby Road.j10
Path: P:\23000's\23325\Junction Assessment\4 Average Flow Assessment
Report generation date: 19/10/2023 12:41:53

- »2021 Base, AM
- »2021 Base, PM
- »2025 Base, AM
- »2025 Base, PM
- »2025 Base + Committed, AM
- »2025 Base + Committed, PM
- »2025 Base + Committed + Development, AM
- »2025 Base + Committed + Development, PM
- »2032 Base, AM
- »2032 Base, PM
- »2032 Base + Committed, AM
- »2032 Base + Committed, PM
- »2032 Base + Committed + Development, AM
- »2032 Base + Committed + Development, PM

Summary of junction performance

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Base						
A - Humber Road	1.4	5.94	0.44	3.0	8.35	0.68
B - Manby Road	0.8	3.71	0.40	0.4	3.15	0.26
C - Port Service Access	0.1	12.22	0.03	0.0	8.68	0.03
D - A160	1.3	4.96	0.48	1.2	4.77	0.43
E - Conco Access	0.0	0.00	0.00	0.0	0.00	0.00
2025 Base						
A - Humber Road	1.5	6.18	0.46	3.5	9.34	0.71
B - Manby Road	0.9	3.89	0.43	0.5	3.25	0.27
C - Port Service Access	0.1	12.83	0.03	0.1	9.04	0.03
D - A160	1.4	5.24	0.50	1.3	4.97	0.45
E - Conco Access	0.0	0.00	0.00	0.0	0.00	0.00
2025 Base + Committed						
A - Humber Road	1.6	6.28	0.48	5.6	13.48	0.81
B - Manby Road	1.2	4.33	0.50	0.5	3.34	0.30
C - Port Service Access	0.1	14.36	0.03	0.1	9.57	0.03
D - A160	1.7	5.87	0.55	1.4	5.16	0.48
E - Conco Access	0.0	0.00	0.00	0.0	0.00	0.00
2025 Base + Committed + Development						
A - Humber Road	1.7	6.38	0.50	6.1	14.56	0.82
B - Manby Road	1.2	4.39	0.50	0.5	3.38	0.31
C - Port Service Access	0.1	14.61	0.03	0.1	9.74	0.03
D - A160	1.8	6.14	0.57	1.5	5.39	0.50
E - Conco Access	0.0	0.00	0.00	0.0	0.00	0.00
2032 Base						
A - Humber Road	1.8	6.62	0.49	4.5	11.44	0.76
B - Manby Road	1.0	4.21	0.46	0.5	3.43	0.30
C - Port Service Access	0.1	13.87	0.03	0.1	9.59	0.03
D - A160	1.6	5.73	0.54	1.4	5.28	0.48
E - Conco Access	0.0	0.00	0.00	0.0	2.99	0.00
2032 Base + Committed						
A - Humber Road	1.9	6.75	0.52	8.0	18.52	0.86
B - Manby Road	1.4	4.76	0.54	0.6	3.54	0.33
C - Port Service Access	0.1	15.68	0.03	0.1	10.19	0.04
D - A160	2.0	6.51	0.59	1.6	5.53	0.51
E - Conco Access	0.0	0.00	0.00	0.0	3.08	0.00
2032 Base + Committed + Development						
A - Humber Road	2.0	6.87	0.53	8.9	20.52	0.88
B - Manby Road	1.4	4.83	0.54	0.6	3.58	0.33
C - Port Service Access	0.1	15.98	0.04	0.1	10.39	0.04
D - A160	2.1	6.83	0.61	1.7	5.79	0.53
E - Conco Access	0.0	0.00	0.00	0.0	3.12	0.00

Values shown are the highest values encountered over all time segments. Delay is the maximum value of Av. delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	18/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\Arcady
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

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	2021 Base	AM	ONE HOUR	06:45	08:15	15	✓
D2	2021 Base	PM	ONE HOUR	15:45	17:15	15	✓
D3	2025 Base	AM	ONE HOUR	06:45	08:15	15	✓
D4	2025 Base	PM	ONE HOUR	15:45	17:15	15	✓
D5	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D6	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D7	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D8	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓
D9	2032 Base	AM	ONE HOUR	06:45	08:15	15	✓
D10	2032 Base	PM	ONE HOUR	15:45	17:15	15	✓
D11	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D12	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D13	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D14	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2021 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	4.94	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.94	A

Arms

Arms

Arm	Name	Description	No give-way line
A	Humber Road		
B	Manby Road		
C	Port Service Access		
D	A160		
E	Conco Access		

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
A - Humber Road	7.00	7.00	0.0	35.0	86.0	36.0		
B - Manby Road	7.20	8.30	5.0	57.0	86.0	30.0		
C - Port Service Access	3.00	8.10	4.5	17.2	87.0	33.0		
D - A160	7.00	8.12	4.0	21.0	86.0	41.0		
E - Conco Access	7.80	9.70	15.0	10.0	86.0	52.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Humber Road	0.521	2121
B - Manby Road	0.576	2453
C - Port Service Access	0.387	1220
D - A160	0.527	2218
E - Conco Access	0.538	2426

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	2021 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	789	100.000
B - Manby Road		ONE HOUR	✓	730	100.000
C - Port Service Access		ONE HOUR	✓	14	100.000
D - A160		ONE HOUR	✓	850	100.000
E - Conco Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	19	87	2	681	0
	B - Manby Road	426	6	2	296	0
	C - Port Service Access	9	0	0	5	0
	D - A160	597	224	7	17	5
	E - Conco Access	0	0	0	0	0

Vehicle Mix

HV %s

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	42	38	100	92	0
	B - Manby Road	22	67	100	22	0
	C - Port Service Access	100	0	0	100	0
	D - A160	48	19	100	67	100
	E - Conco Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.44	5.94	1.4	A	724	1086
B - Manby Road	0.40	3.71	0.8	A	670	1005
C - Port Service Access	0.03	12.22	0.1	B	13	19
D - A160	0.48	4.96	1.3	A	780	1170
E - Conco Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	594	149	190	2022	0.294	591	788	0.0	0.8	4.584	A
B - Manby Road	550	137	544	2139	0.257	548	238	0.0	0.4	2.766	A
C - Port Service Access	11	3	1083	801	0.013	10	8	0.0	0.0	9.109	A
D - A160	640	160	345	2035	0.314	637	749	0.0	0.6	3.595	A
E - Conco Access	0	0	979	1899	0.000	0	4	0.0	0.0	0.000	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	709	177	228	2002	0.354	708	944	0.8	1.0	5.077	A
B - Manby Road	656	164	652	2077	0.316	656	285	0.4	0.6	3.097	A
C - Port Service Access	13	3	1298	718	0.018	13	10	0.0	0.0	10.208	B
D - A160	764	191	413	2000	0.382	763	897	0.6	0.9	4.069	A
E - Conco Access	0	0	1172	1795	0.000	0	4	0.0	0.0	0.000	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	869	217	279	1976	0.440	867	1155	1.0	1.4	5.921	A
B - Manby Road	804	201	798	1993	0.403	803	348	0.6	0.8	3.697	A
C - Port Service Access	15	4	1588	605	0.025	15	12	0.0	0.1	12.202	B
D - A160	936	234	506	1951	0.480	934	1098	0.9	1.3	4.944	A
E - Conco Access	0	0	1434	1654	0.000	0	5	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	869	217	280	1975	0.440	869	1157	1.4	1.4	5.938	A
B - Manby Road	804	201	799	1992	0.403	804	349	0.8	0.8	3.706	A
C - Port Service Access	15	4	1591	604	0.026	15	12	0.1	0.1	12.225	B
D - A160	936	234	506	1950	0.480	936	1100	1.3	1.3	4.961	A
E - Conco Access	0	0	1437	1653	0.000	0	6	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	709	177	229	2002	0.354	711	947	1.4	1.0	5.099	A
B - Manby Road	656	164	654	2076	0.316	657	286	0.8	0.6	3.107	A
C - Port Service Access	13	3	1302	716	0.018	13	10	0.1	0.0	10.232	B
D - A160	764	191	414	1999	0.382	766	900	1.3	0.9	4.087	A
E - Conco Access	0	0	1175	1793	0.000	0	5	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	594	149	191	2021	0.294	595	792	1.0	0.8	4.610	A
B - Manby Road	550	137	547	2137	0.257	550	239	0.6	0.4	2.778	A
C - Port Service Access	11	3	1089	798	0.013	11	8	0.0	0.0	9.138	A
D - A160	640	160	347	2035	0.315	641	753	0.9	0.6	3.616	A
E - Conco Access	0	0	984	1897	0.000	0	4	0.0	0.0	0.000	A

2021 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	6.23	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.23	A

Traffic Demand

Demand Set 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	2021 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	1188	100.000
B - Manby Road		ONE HOUR	✓	454	100.000
C - Port Service Access		ONE HOUR	✓	18	100.000
D - A160		ONE HOUR	✓	809	100.000
E - Conco Access		ONE HOUR	✓	4	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	72	388	0	728	0
	B - Manby Road	170	12	2	270	0
	C - Port Service Access	0	7	0	11	0
	D - A160	486	302	8	8	5
	E - Conco Access	0	2	0	2	0

Vehicle Mix

HV %s

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	37	21	0	61	0
	B - Manby Road	37	9	100	20	0
	C - Port Service Access	0	50	0	67	0
	D - A160	91	20	75	40	100
	E - Conco Access	0	0	0	100	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.68	8.35	3.0	A	1090	1635
B - Manby Road	0.26	3.15	0.4	A	417	625
C - Port Service Access	0.03	8.68	0.0	A	17	25
D - A160	0.43	4.77	1.2	A	742	1114
E - Conco Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	894	224	253	1990	0.450	890	546	0.0	1.2	4.692	A
B - Manby Road	342	85	611	2101	0.163	341	531	0.0	0.2	2.570	A
C - Port Service Access	14	3	944	855	0.016	13	7	0.0	0.0	6.845	A
D - A160	609	152	196	2114	0.288	607	762	0.0	0.6	3.716	A
E - Conco Access	0	0	799	1996	0.000	0	4	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1068	267	303	1963	0.544	1066	654	1.2	1.7	5.758	A
B - Manby Road	408	102	732	2031	0.201	408	636	0.2	0.3	2.788	A
C - Port Service Access	16	4	1131	782	0.021	16	9	0.0	0.0	7.514	A
D - A160	727	182	234	2094	0.347	726	913	0.6	0.8	4.103	A
E - Conco Access	0	0	956	1911	0.000	0	4	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1308	327	370	1928	0.678	1303	800	1.7	3.0	8.222	A
B - Manby Road	500	125	895	1937	0.258	499	778	0.3	0.4	3.148	A
C - Port Service Access	20	5	1383	685	0.029	20	11	0.0	0.0	8.660	A
D - A160	891	223	287	2066	0.431	889	1116	0.8	1.2	4.762	A
E - Conco Access	0	0	1171	1796	0.000	0	5	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1308	327	371	1928	0.679	1308	802	3.0	3.0	8.351	A
B - Manby Road	500	125	898	1935	0.258	500	781	0.4	0.4	3.152	A
C - Port Service Access	20	5	1387	683	0.029	20	11	0.0	0.0	8.679	A
D - A160	891	223	287	2066	0.431	891	1120	1.2	1.2	4.775	A
E - Conco Access	0	0	1173	1795	0.000	0	6	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1068	267	304	1963	0.544	1073	656	3.0	1.7	5.855	A
B - Manby Road	408	102	737	2028	0.201	409	640	0.4	0.3	2.797	A
C - Port Service Access	16	4	1137	780	0.021	16	9	0.0	0.0	7.539	A
D - A160	727	182	235	2094	0.347	729	918	1.2	0.8	4.115	A
E - Conco Access	0	0	959	1910	0.000	0	5	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	894	224	254	1989	0.450	897	549	1.7	1.2	4.753	A
B - Manby Road	342	85	616	2098	0.163	342	535	0.3	0.2	2.579	A
C - Port Service Access	14	3	950	852	0.016	14	8	0.0	0.0	6.867	A
D - A160	609	152	197	2114	0.288	610	767	0.8	0.6	3.733	A
E - Conco Access	0	0	803	1994	0.000	0	4	0.0	0.0	0.000	A

2025 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	5.18	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.18	A

Traffic Demand

Demand Set 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	2025 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	822	100.000
B - Manby Road		ONE HOUR	✓	762	100.000
C - Port Service Access		ONE HOUR	✓	15	100.000
D - A160		ONE HOUR	✓	888	100.000
E - Conco Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	19	90	2	711	0
	B - Manby Road	445	6	2	309	0
	C - Port Service Access	10	0	0	5	0
	D - A160	624	234	7	18	5
	E - Conco Access	0	0	0	0	0

Vehicle Mix

HV %s

		To				
From		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
	A - Humber Road	42	38	100	92	0
	B - Manby Road	22	67	100	22	0
	C - Port Service Access	100	0	0	100	0
	D - A160	48	19	100	67	100
	E - Conco Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.46	6.18	1.5	A	754	1131
B - Manby Road	0.43	3.89	0.9	A	699	1049
C - Port Service Access	0.03	12.83	0.1	B	14	21
D - A160	0.50	5.24	1.4	A	815	1222
E - Conco Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	619	155	199	2018	0.307	616	824	0.0	0.8	4.681	A
B - Manby Road	574	143	567	2126	0.270	572	247	0.0	0.5	2.832	A
C - Port Service Access	11	3	1131	783	0.014	11	8	0.0	0.0	9.333	A
D - A160	669	167	360	2028	0.330	666	782	0.0	0.7	3.688	A
E - Conco Access	0	0	1022	1876	0.000	0	4	0.0	0.0	0.000	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	739	185	238	1997	0.370	738	986	0.8	1.1	5.218	A
B - Manby Road	685	171	680	2061	0.332	684	296	0.5	0.6	3.198	A
C - Port Service Access	13	3	1354	696	0.019	13	10	0.0	0.0	10.548	B
D - A160	798	200	431	1990	0.401	797	936	0.7	0.9	4.216	A
E - Conco Access	0	0	1224	1767	0.000	0	4	0.0	0.0	0.000	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	905	226	291	1969	0.460	903	1207	1.1	1.5	6.156	A
B - Manby Road	839	210	832	1974	0.425	838	363	0.6	0.9	3.875	A
C - Port Service Access	17	4	1657	579	0.029	16	12	0.0	0.1	12.806	B
D - A160	978	244	528	1939	0.504	976	1146	0.9	1.4	5.214	A
E - Conco Access	0	0	1498	1620	0.000	0	5	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	905	226	292	1969	0.460	905	1209	1.5	1.5	6.180	A
B - Manby Road	839	210	833	1973	0.425	839	363	0.9	0.9	3.885	A
C - Port Service Access	17	4	1660	577	0.029	17	12	0.1	0.1	12.834	B
D - A160	978	244	528	1939	0.504	978	1148	1.4	1.4	5.237	A
E - Conco Access	0	0	1501	1619	0.000	0	6	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	739	185	239	1997	0.370	741	989	1.5	1.1	5.244	A
B - Manby Road	685	171	682	2060	0.333	686	297	0.9	0.6	3.209	A
C - Port Service Access	13	3	1358	694	0.019	14	10	0.1	0.0	10.577	B
D - A160	798	200	432	1990	0.401	800	940	1.4	0.9	4.240	A
E - Conco Access	0	0	1228	1765	0.000	0	5	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	619	155	200	2017	0.307	620	828	1.1	0.8	4.712	A
B - Manby Road	574	143	571	2124	0.270	574	249	0.6	0.5	2.843	A
C - Port Service Access	11	3	1137	780	0.014	11	8	0.0	0.0	9.367	A
D - A160	669	167	362	2027	0.330	670	786	0.9	0.7	3.713	A
E - Conco Access	0	0	1028	1873	0.000	0	4	0.0	0.0	0.000	A

2025 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	6.79	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.79	A

Traffic Demand

Demand Set 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	2025 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	1240	100.000
B - Manby Road		ONE HOUR	✓	474	100.000
C - Port Service Access		ONE HOUR	✓	19	100.000
D - A160		ONE HOUR	✓	844	100.000
E - Conco Access		ONE HOUR	✓	4	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	76	404	0	760	0
	B - Manby Road	177	13	2	282	0
	C - Port Service Access	0	7	0	12	0
	D - A160	507	316	8	8	5
	E - Conco Access	0	2	0	2	0

Vehicle Mix

HV %s

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	37	21	0	61	0
	B - Manby Road	37	9	100	20	0
	C - Port Service Access	0	50	0	67	0
	D - A160	91	20	75	40	100
	E - Conco Access	0	0	0	100	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.71	9.34	3.5	A	1138	1707
B - Manby Road	0.27	3.25	0.5	A	435	652
C - Port Service Access	0.03	9.04	0.1	A	17	26
D - A160	0.45	4.97	1.3	A	774	1162
E - Conco Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	934	233	264	1984	0.471	928	570	0.0	1.3	4.888	A
B - Manby Road	357	89	638	2085	0.171	356	554	0.0	0.3	2.615	A
C - Port Service Access	14	4	986	838	0.017	14	7	0.0	0.0	7.002	A
D - A160	635	159	205	2110	0.301	633	796	0.0	0.7	3.793	A
E - Conco Access	0	0	834	1977	0.000	0	4	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1115	279	316	1956	0.570	1112	682	1.3	1.9	6.119	A
B - Manby Road	426	107	764	2013	0.212	426	664	0.3	0.3	2.851	A
C - Port Service Access	17	4	1181	763	0.022	17	9	0.0	0.0	7.736	A
D - A160	759	190	245	2088	0.363	758	953	0.7	0.9	4.214	A
E - Conco Access	0	0	999	1889	0.000	0	4	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1365	341	387	1920	0.711	1359	835	1.9	3.4	9.144	A
B - Manby Road	522	130	934	1915	0.273	521	812	0.3	0.5	3.247	A
C - Port Service Access	21	5	1444	661	0.032	21	11	0.0	0.1	9.012	A
D - A160	929	232	300	2059	0.451	928	1165	0.9	1.3	4.950	A
E - Conco Access	0	0	1222	1768	0.000	0	5	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1365	341	388	1919	0.711	1365	837	3.4	3.5	9.340	A
B - Manby Road	522	130	938	1913	0.273	522	815	0.5	0.5	3.252	A
C - Port Service Access	21	5	1449	659	0.032	21	11	0.1	0.1	9.038	A
D - A160	929	232	301	2059	0.451	929	1169	1.3	1.3	4.965	A
E - Conco Access	0	0	1224	1767	0.000	0	6	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1115	279	317	1956	0.570	1121	685	3.5	1.9	6.250	A
B - Manby Road	426	107	770	2009	0.212	427	668	0.5	0.3	2.861	A
C - Port Service Access	17	4	1188	760	0.022	17	9	0.1	0.0	7.766	A
D - A160	759	190	246	2088	0.363	760	959	1.3	0.9	4.230	A
E - Conco Access	0	0	1002	1887	0.000	0	5	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	934	233	265	1983	0.471	936	573	1.9	1.3	4.964	A
B - Manby Road	357	89	643	2082	0.171	357	558	0.3	0.3	2.624	A
C - Port Service Access	14	4	993	836	0.017	14	8	0.0	0.0	7.027	A
D - A160	635	159	206	2109	0.301	636	801	0.9	0.7	3.810	A
E - Conco Access	0	0	838	1975	0.000	0	4	0.0	0.0	0.000	A

2025 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	5.54	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.54	A

Traffic Demand

Demand Set 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	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	864	100.000
B - Manby Road		ONE HOUR	✓	890	100.000
C - Port Service Access		ONE HOUR	✓	15	100.000
D - A160		ONE HOUR	✓	939	100.000
E - Conco Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	21	120	2	721	0
	B - Manby Road	549	6	2	333	0
	C - Port Service Access	10	0	0	5	0
	D - A160	664	245	7	18	5
	E - Conco Access	0	0	0	0	0

Vehicle Mix

HV %s

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	38	25	100	91	0
	B - Manby Road	17	67	100	20	0
	C - Port Service Access	100	0	0	100	0
	D - A160	45	18	100	67	100
	E - Conco Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.48	6.28	1.6	A	793	1189
B - Manby Road	0.50	4.33	1.2	A	817	1225
C - Port Service Access	0.03	14.36	0.1	B	14	21
D - A160	0.55	5.87	1.7	A	862	1292
E - Conco Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	650	163	207	2013	0.323	647	933	0.0	0.8	4.638	A
B - Manby Road	670	168	576	2121	0.316	668	278	0.0	0.5	2.931	A
C - Port Service Access	11	3	1236	742	0.015	11	8	0.0	0.0	9.852	A
D - A160	707	177	440	1986	0.356	704	807	0.0	0.8	3.859	A
E - Conco Access	0	0	1140	1813	0.000	0	4	0.0	0.0	0.000	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	777	194	248	1992	0.390	776	1117	0.8	1.1	5.217	A
B - Manby Road	800	200	690	2055	0.389	799	333	0.5	0.8	3.394	A
C - Port Service Access	13	3	1480	647	0.021	13	10	0.0	0.0	11.357	B
D - A160	844	211	526	1940	0.435	843	967	0.8	1.1	4.511	A
E - Conco Access	0	0	1365	1692	0.000	0	4	0.0	0.0	0.000	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	951	238	303	1963	0.485	949	1367	1.1	1.6	6.251	A
B - Manby Road	980	245	845	1966	0.498	978	408	0.8	1.2	4.310	A
C - Port Service Access	17	4	1811	519	0.032	16	12	0.0	0.1	14.320	B
D - A160	1034	258	644	1878	0.551	1031	1183	1.1	1.7	5.837	A
E - Conco Access	0	0	1670	1527	0.000	0	5	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	951	238	304	1963	0.485	951	1370	1.6	1.6	6.278	A
B - Manby Road	980	245	847	1965	0.499	980	408	1.2	1.2	4.328	A
C - Port Service Access	17	4	1814	518	0.032	17	12	0.1	0.1	14.361	B
D - A160	1034	258	645	1877	0.551	1034	1186	1.7	1.7	5.873	A
E - Conco Access	0	0	1673	1526	0.000	0	6	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	777	194	249	1992	0.390	779	1121	1.6	1.1	5.245	A
B - Manby Road	800	200	693	2053	0.390	802	334	1.2	0.8	3.410	A
C - Port Service Access	13	3	1485	645	0.021	14	10	0.1	0.0	11.399	B
D - A160	844	211	528	1939	0.435	847	971	1.7	1.1	4.544	A
E - Conco Access	0	0	1370	1689	0.000	0	5	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	650	163	208	2013	0.323	652	938	1.1	0.8	4.670	A
B - Manby Road	670	168	580	2119	0.316	671	280	0.8	0.6	2.946	A
C - Port Service Access	11	3	1243	739	0.015	11	8	0.0	0.0	9.892	A
D - A160	707	177	442	1985	0.356	708	812	1.1	0.8	3.884	A
E - Conco Access	0	0	1146	1809	0.000	0	4	0.0	0.0	0.000	A

2025 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	8.97	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.97	A

Traffic Demand

Demand Set 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	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	1395	100.000
B - Manby Road		ONE HOUR	✓	519	100.000
C - Port Service Access		ONE HOUR	✓	19	100.000
D - A160		ONE HOUR	✓	887	100.000
E - Conco Access		ONE HOUR	✓	4	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	85	521	0	789	0
	B - Manby Road	211	13	2	293	0
	C - Port Service Access	0	7	0	12	0
	D - A160	516	350	8	8	5
	E - Conco Access	0	2	0	2	0

Vehicle Mix

HV %s

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	31	16	0	57	0
	B - Manby Road	28	9	100	19	0
	C - Port Service Access	0	50	0	67	0
	D - A160	89	17	75	40	100
	E - Conco Access	0	0	0	100	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.81	13.48	5.6	B	1280	1920
B - Manby Road	0.30	3.34	0.5	A	476	714
C - Port Service Access	0.03	9.57	0.1	A	17	26
D - A160	0.48	5.16	1.4	A	814	1221
E - Conco Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1050	263	289	1970	0.533	1044	609	0.0	1.5	5.299	A
B - Manby Road	391	98	666	2069	0.189	390	667	0.0	0.3	2.623	A
C - Port Service Access	14	4	1048	814	0.018	14	7	0.0	0.0	7.211	A
D - A160	668	167	237	2093	0.319	665	825	0.0	0.7	3.815	A
E - Conco Access	0	0	898	1943	0.000	0	4	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1254	314	347	1941	0.646	1250	729	1.5	2.5	7.119	A
B - Manby Road	467	117	798	1993	0.234	466	799	0.3	0.4	2.885	A
C - Port Service Access	17	4	1255	734	0.023	17	9	0.0	0.0	8.045	A
D - A160	797	199	284	2068	0.386	796	988	0.7	0.9	4.291	A
E - Conco Access	0	0	1076	1847	0.000	0	4	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1536	384	424	1900	0.808	1524	892	2.5	5.4	12.752	B
B - Manby Road	571	143	972	1893	0.302	571	976	0.4	0.5	3.332	A
C - Port Service Access	21	5	1532	627	0.033	21	11	0.0	0.1	9.519	A
D - A160	977	244	347	2035	0.480	975	1206	0.9	1.4	5.143	A
E - Conco Access	0	0	1316	1718	0.000	0	5	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1536	384	425	1900	0.809	1535	894	5.4	5.6	13.479	B
B - Manby Road	571	143	979	1889	0.303	571	981	0.5	0.5	3.344	A
C - Port Service Access	21	5	1540	624	0.034	21	11	0.1	0.1	9.567	A
D - A160	977	244	348	2034	0.480	977	1213	1.4	1.4	5.161	A
E - Conco Access	0	0	1319	1716	0.000	0	6	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1254	314	348	1940	0.646	1266	732	5.6	2.6	7.460	A
B - Manby Road	467	117	808	1988	0.235	467	806	0.5	0.4	2.899	A
C - Port Service Access	17	4	1266	730	0.023	17	9	0.1	0.0	8.095	A
D - A160	797	199	285	2067	0.386	799	998	1.4	1.0	4.310	A
E - Conco Access	0	0	1080	1845	0.000	0	5	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1050	263	291	1970	0.533	1054	612	2.6	1.6	5.419	A
B - Manby Road	391	98	673	2065	0.189	391	673	0.4	0.3	2.634	A
C - Port Service Access	14	4	1056	811	0.018	14	8	0.0	0.0	7.240	A
D - A160	668	167	238	2092	0.319	669	832	1.0	0.7	3.840	A
E - Conco Access	0	0	903	1940	0.000	0	4	0.0	0.0	0.000	A

2025 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	5.70	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.70	A

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	884	100.000
B - Manby Road		ONE HOUR	✓	894	100.000
C - Port Service Access		ONE HOUR	✓	15	100.000
D - A160		ONE HOUR	✓	966	100.000
E - Conco Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	21	124	2	737	0
	B - Manby Road	553	6	2	333	0
	C - Port Service Access	10	0	0	5	0
	D - A160	691	245	7	18	5
	E - Conco Access	0	0	0	0	0

Vehicle Mix

HV %s

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	38	24	100	90	0
	B - Manby Road	17	67	100	20	0
	C - Port Service Access	100	0	0	100	0
	D - A160	46	18	100	67	100
	E - Conco Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.50	6.38	1.7	A	811	1217
B - Manby Road	0.50	4.39	1.2	A	820	1231
C - Port Service Access	0.03	14.61	0.1	B	14	21
D - A160	0.57	6.14	1.8	A	886	1330
E - Conco Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	666	166	207	2013	0.331	662	956	0.0	0.9	4.661	A
B - Manby Road	673	168	588	2114	0.318	671	281	0.0	0.6	2.951	A
C - Port Service Access	11	3	1251	736	0.015	11	8	0.0	0.0	9.931	A
D - A160	727	182	443	1984	0.367	724	819	0.0	0.8	3.947	A
E - Conco Access	0	0	1163	1800	0.000	0	4	0.0	0.0	0.000	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	795	199	248	1992	0.399	794	1145	0.9	1.2	5.261	A
B - Manby Road	804	201	705	2047	0.393	803	337	0.6	0.8	3.426	A
C - Port Service Access	13	3	1498	640	0.021	13	10	0.0	0.0	11.483	B
D - A160	868	217	530	1938	0.448	867	981	0.8	1.1	4.648	A
E - Conco Access	0	0	1392	1677	0.000	0	4	0.0	0.0	0.000	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	973	243	303	1963	0.496	971	1401	1.2	1.7	6.349	A
B - Manby Road	984	246	862	1956	0.503	983	412	0.8	1.2	4.372	A
C - Port Service Access	17	4	1833	511	0.032	16	12	0.0	0.1	14.567	B
D - A160	1064	266	648	1876	0.567	1061	1201	1.1	1.8	6.097	A
E - Conco Access	0	0	1704	1509	0.000	0	5	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	973	243	304	1963	0.496	973	1404	1.7	1.7	6.378	A
B - Manby Road	984	246	864	1955	0.504	984	413	1.2	1.2	4.392	A
C - Port Service Access	17	4	1836	509	0.032	17	12	0.1	0.1	14.609	B
D - A160	1064	266	650	1875	0.567	1064	1203	1.8	1.8	6.142	A
E - Conco Access	0	0	1708	1507	0.000	0	6	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	795	199	249	1992	0.399	797	1149	1.7	1.2	5.295	A
B - Manby Road	804	201	708	2045	0.393	805	338	1.2	0.8	3.443	A
C - Port Service Access	13	3	1503	638	0.021	14	10	0.1	0.0	11.527	B
D - A160	868	217	532	1937	0.448	871	985	1.8	1.1	4.686	A
E - Conco Access	0	0	1398	1674	0.000	0	5	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	666	166	208	2013	0.331	667	961	1.2	0.9	4.693	A
B - Manby Road	673	168	592	2112	0.319	674	283	0.8	0.6	2.966	A
C - Port Service Access	11	3	1258	733	0.015	11	8	0.0	0.0	9.974	A
D - A160	727	182	445	1983	0.367	729	824	1.1	0.8	3.977	A
E - Conco Access	0	0	1170	1797	0.000	0	4	0.0	0.0	0.000	A

2025 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	9.57	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.57	A

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	1420	100.000
B - Manby Road		ONE HOUR	✓	523	100.000
C - Port Service Access		ONE HOUR	✓	19	100.000
D - A160		ONE HOUR	✓	921	100.000
E - Conco Access		ONE HOUR	✓	4	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	85	525	0	810	0
	B - Manby Road	215	13	2	293	0
	C - Port Service Access	0	7	0	12	0
	D - A160	550	350	8	8	5
	E - Conco Access	0	2	0	2	0

Vehicle Mix

HV %s

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	31	15	0	58	0
	B - Manby Road	27	9	100	19	0
	C - Port Service Access	0	50	0	67	0
	D - A160	88	17	75	40	100
	E - Conco Access	0	0	0	100	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.82	14.56	6.1	B	1303	1955
B - Manby Road	0.31	3.38	0.5	A	480	720
C - Port Service Access	0.03	9.74	0.1	A	17	26
D - A160	0.50	5.39	1.5	A	845	1268
E - Conco Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1069	267	289	1970	0.543	1063	637	0.0	1.6	5.409	A
B - Manby Road	394	98	682	2060	0.191	393	670	0.0	0.3	2.634	A
C - Port Service Access	14	4	1067	807	0.018	14	7	0.0	0.0	7.277	A
D - A160	693	173	240	2091	0.332	690	841	0.0	0.8	3.909	A
E - Conco Access	0	0	927	1927	0.000	0	4	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1277	319	347	1941	0.658	1273	763	1.6	2.6	7.356	A
B - Manby Road	470	118	816	1982	0.237	470	803	0.3	0.4	2.905	A
C - Port Service Access	17	4	1277	726	0.024	17	9	0.0	0.0	8.143	A
D - A160	828	207	287	2066	0.401	827	1007	0.8	1.0	4.423	A
E - Conco Access	0	0	1110	1829	0.000	0	4	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1563	391	424	1900	0.823	1550	934	2.6	5.9	13.634	B
B - Manby Road	576	144	995	1880	0.306	575	980	0.4	0.5	3.366	A
C - Port Service Access	21	5	1559	617	0.034	21	11	0.0	0.1	9.683	A
D - A160	1014	254	351	2032	0.499	1012	1228	1.0	1.5	5.367	A
E - Conco Access	0	0	1358	1695	0.000	0	5	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1563	391	425	1900	0.823	1563	936	5.9	6.1	14.558	B
B - Manby Road	576	144	1002	1875	0.307	576	985	0.5	0.5	3.380	A
C - Port Service Access	21	5	1567	613	0.034	21	11	0.1	0.1	9.738	A
D - A160	1014	254	352	2032	0.499	1014	1236	1.5	1.5	5.389	A
E - Conco Access	0	0	1361	1694	0.000	0	6	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1277	319	348	1940	0.658	1290	766	6.1	2.7	7.763	A
B - Manby Road	470	118	828	1976	0.238	471	810	0.5	0.4	2.922	A
C - Port Service Access	17	4	1289	721	0.024	17	9	0.1	0.0	8.200	A
D - A160	828	207	289	2065	0.401	830	1018	1.5	1.0	4.446	A
E - Conco Access	0	0	1114	1826	0.000	0	5	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1069	267	291	1970	0.543	1073	641	2.7	1.7	5.543	A
B - Manby Road	394	98	689	2056	0.191	394	676	0.4	0.3	2.644	A
C - Port Service Access	14	4	1075	804	0.018	14	8	0.0	0.0	7.307	A
D - A160	693	173	241	2090	0.332	694	848	1.0	0.8	3.932	A
E - Conco Access	0	0	932	1924	0.000	0	4	0.0	0.0	0.000	A

2032 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	5.61	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.61	A

Traffic Demand

Demand Set 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	2032 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	877	100.000
B - Manby Road		ONE HOUR	✓	812	100.000
C - Port Service Access		ONE HOUR	✓	15	100.000
D - A160		ONE HOUR	✓	947	100.000
E - Conco Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	21	96	3	757	0
	B - Manby Road	474	6	3	329	0
	C - Port Service Access	10	0	0	5	0
	D - A160	665	250	8	19	5
	E - Conco Access	0	0	0	0	0

Vehicle Mix

HV %s

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	42	38	100	92	0
	B - Manby Road	22	67	100	22	0
	C - Port Service Access	100	0	0	100	0
	D - A160	48	19	100	67	100
	E - Conco Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.49	6.62	1.8	A	805	1207
B - Manby Road	0.46	4.21	1.0	A	745	1118
C - Port Service Access	0.03	13.87	0.1	B	14	21
D - A160	0.54	5.73	1.6	A	869	1303
E - Conco Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	660	165	212	2011	0.328	657	877	0.0	0.9	4.844	A
B - Manby Road	611	153	605	2104	0.291	609	264	0.0	0.5	2.944	A
C - Port Service Access	11	3	1204	754	0.015	11	10	0.0	0.0	9.689	A
D - A160	713	178	383	2015	0.354	710	832	0.0	0.8	3.848	A
E - Conco Access	0	0	1090	1840	0.000	0	4	0.0	0.0	0.000	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	788	197	254	1989	0.396	787	1051	0.9	1.2	5.466	A
B - Manby Road	730	182	725	2035	0.359	729	316	0.5	0.7	3.373	A
C - Port Service Access	13	3	1442	662	0.020	13	13	0.0	0.0	11.101	B
D - A160	851	213	459	1975	0.431	850	996	0.8	1.0	4.468	A
E - Conco Access	0	0	1305	1724	0.000	0	4	0.0	0.0	0.000	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	966	241	311	1959	0.493	963	1286	1.2	1.8	6.589	A
B - Manby Road	894	224	888	1942	0.460	893	387	0.7	1.0	4.197	A
C - Port Service Access	17	4	1765	537	0.031	16	15	0.0	0.1	13.828	B
D - A160	1043	261	562	1921	0.543	1040	1220	1.0	1.6	5.699	A
E - Conco Access	0	0	1596	1567	0.000	0	5	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	966	241	312	1959	0.493	966	1288	1.8	1.8	6.619	A
B - Manby Road	894	224	890	1940	0.461	894	388	1.0	1.0	4.211	A
C - Port Service Access	17	4	1768	536	0.031	17	15	0.1	0.1	13.866	B
D - A160	1043	261	563	1921	0.543	1043	1222	1.6	1.6	5.731	A
E - Conco Access	0	0	1600	1565	0.000	0	6	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	788	197	255	1988	0.397	791	1054	1.8	1.2	5.502	A
B - Manby Road	730	182	728	2033	0.359	731	317	1.0	0.7	3.388	A
C - Port Service Access	13	3	1447	660	0.020	14	13	0.1	0.0	11.141	B
D - A160	851	213	460	1975	0.431	854	1000	1.6	1.1	4.498	A
E - Conco Access	0	0	1309	1721	0.000	0	5	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	660	165	213	2010	0.328	661	882	1.2	0.9	4.882	A
B - Manby Road	611	153	609	2102	0.291	612	265	0.7	0.5	2.961	A
C - Port Service Access	11	3	1211	751	0.015	11	11	0.0	0.0	9.728	A
D - A160	713	178	385	2014	0.354	714	837	1.1	0.8	3.874	A
E - Conco Access	0	0	1096	1836	0.000	0	4	0.0	0.0	0.000	A

2032 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	7.92	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.92	A

Traffic Demand

Demand Set 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	2032 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	1319	100.000
B - Manby Road		ONE HOUR	✓	505	100.000
C - Port Service Access		ONE HOUR	✓	19	100.000
D - A160		ONE HOUR	✓	897	100.000
E - Conco Access		ONE HOUR	✓	5	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	80	430	0	809	0
	B - Manby Road	188	14	3	300	0
	C - Port Service Access	0	7	0	12	0
	D - A160	539	336	9	8	5
	E - Conco Access	0	2	0	3	0

Vehicle Mix

HV %s

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	37	21	0	61	0
	B - Manby Road	37	9	100	20	0
	C - Port Service Access	0	50	0	67	0
	D - A160	91	20	75	40	100
	E - Conco Access	0	0	0	100	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.76	11.44	4.5	B	1210	1816
B - Manby Road	0.30	3.43	0.5	A	463	695
C - Port Service Access	0.03	9.59	0.1	A	17	26
D - A160	0.48	5.28	1.4	A	823	1235
E - Conco Access	0.00	2.99	0.0	A	5	7

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	993	248	284	1973	0.503	987	605	0.0	1.4	5.227	A
B - Manby Road	380	95	680	2061	0.184	379	591	0.0	0.3	2.691	A
C - Port Service Access	14	4	1050	814	0.018	14	9	0.0	0.0	7.219	A
D - A160	675	169	217	2103	0.321	672	848	0.0	0.7	3.913	A
E - Conco Access	4	0.94	885	1950	0.002	4	4	0.0	0.0	2.642	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1186	296	340	1944	0.610	1183	725	1.4	2.2	6.782	A
B - Manby Road	454	113	815	1983	0.229	454	708	0.3	0.4	2.959	A
C - Port Service Access	17	4	1258	733	0.023	17	11	0.0	0.0	8.058	A
D - A160	806	202	259	2081	0.388	805	1016	0.7	1.0	4.393	A
E - Conco Access	4	1	1060	1855	0.002	4	4	0.0	0.0	2.778	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1452	363	417	1904	0.763	1443	887	2.2	4.4	11.041	B
B - Manby Road	556	139	995	1880	0.296	555	865	0.4	0.5	3.416	A
C - Port Service Access	21	5	1537	625	0.033	21	13	0.0	0.1	9.548	A
D - A160	988	247	317	2050	0.482	986	1241	1.0	1.4	5.263	A
E - Conco Access	6	1	1298	1728	0.003	6	5	0.0	0.0	2.985	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1452	363	417	1904	0.763	1452	888	4.4	4.5	11.438	B
B - Manby Road	556	139	1001	1876	0.296	556	869	0.5	0.5	3.427	A
C - Port Service Access	21	5	1543	623	0.034	21	13	0.1	0.1	9.588	A
D - A160	988	247	318	2050	0.482	988	1246	1.4	1.4	5.281	A
E - Conco Access	6	1	1300	1726	0.003	6	6	0.0	0.0	2.987	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1186	296	341	1943	0.610	1195	727	4.5	2.3	7.001	A
B - Manby Road	454	113	823	1979	0.229	455	713	0.5	0.4	2.973	A
C - Port Service Access	17	4	1267	730	0.023	17	11	0.1	0.0	8.099	A
D - A160	806	202	261	2080	0.388	808	1024	1.4	1.0	4.416	A
E - Conco Access	4	1	1064	1853	0.002	4	5	0.0	0.0	2.781	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	993	248	286	1972	0.503	996	608	2.3	1.5	5.327	A
B - Manby Road	380	95	687	2057	0.185	381	595	0.4	0.3	2.700	A
C - Port Service Access	14	4	1058	811	0.018	14	9	0.0	0.0	7.250	A
D - A160	675	169	218	2103	0.321	676	854	1.0	0.7	3.936	A
E - Conco Access	4	0.94	890	1947	0.002	4	4	0.0	0.0	2.646	A

2032 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	6.06	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.06	A

Traffic Demand

Demand Set 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	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	919	100.000
B - Manby Road		ONE HOUR	✓	941	100.000
C - Port Service Access		ONE HOUR	✓	15	100.000
D - A160		ONE HOUR	✓	998	100.000
E - Conco Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	22	126	3	768	0
	B - Manby Road	579	6	3	353	0
	C - Port Service Access	10	0	0	5	0
	D - A160	706	260	8	19	5
	E - Conco Access	0	0	0	0	0

Vehicle Mix

HV %s

		To				
From		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
	A - Humber Road	38	25	100	91	0
	B - Manby Road	17	67	100	20	0
	C - Port Service Access	100	0	0	100	0
	D - A160	45	18	100	67	100
	E - Conco Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.52	6.75	1.9	A	843	1265
B - Manby Road	0.54	4.76	1.4	A	863	1295
C - Port Service Access	0.03	15.68	0.1	C	14	21
D - A160	0.59	6.51	2.0	A	916	1374
E - Conco Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	692	173	220	2007	0.345	688	987	0.0	0.9	4.808	A
B - Manby Road	708	177	614	2099	0.338	706	294	0.0	0.6	3.057	A
C - Port Service Access	11	3	1310	713	0.016	11	10	0.0	0.0	10.254	B
D - A160	751	188	463	1973	0.381	748	858	0.0	0.8	4.033	A
E - Conco Access	0	0	1207	1776	0.000	0	4	0.0	0.0	0.000	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	826	207	263	1984	0.416	825	1182	0.9	1.2	5.479	A
B - Manby Road	846	211	736	2029	0.417	845	352	0.6	0.8	3.599	A
C - Port Service Access	13	3	1568	613	0.022	13	13	0.0	0.0	12.008	B
D - A160	897	224	554	1925	0.466	896	1028	0.8	1.2	4.805	A
E - Conco Access	0	0	1445	1648	0.000	0	4	0.0	0.0	0.000	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1012	253	322	1954	0.518	1009	1446	1.2	1.9	6.716	A
B - Manby Road	1036	259	901	1934	0.536	1034	430	0.8	1.4	4.729	A
C - Port Service Access	17	4	1919	477	0.035	16	15	0.0	0.1	15.621	C
D - A160	1099	275	678	1860	0.591	1096	1258	1.2	2.0	6.458	A
E - Conco Access	0	0	1768	1475	0.000	0	5	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1012	253	323	1953	0.518	1012	1450	1.9	1.9	6.754	A
B - Manby Road	1036	259	903	1933	0.536	1036	432	1.4	1.4	4.756	A
C - Port Service Access	17	4	1923	476	0.035	17	15	0.1	0.1	15.681	C
D - A160	1099	275	679	1859	0.591	1099	1261	2.0	2.0	6.515	A
E - Conco Access	0	0	1773	1472	0.000	0	6	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	826	207	264	1983	0.417	829	1187	1.9	1.3	5.518	A
B - Manby Road	846	211	739	2027	0.417	848	354	1.4	0.9	3.626	A
C - Port Service Access	13	3	1575	611	0.022	14	13	0.1	0.0	12.061	B
D - A160	897	224	556	1924	0.466	900	1032	2.0	1.2	4.852	A
E - Conco Access	0	0	1452	1645	0.000	0	5	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	692	173	221	2006	0.345	693	993	1.3	0.9	4.847	A
B - Manby Road	708	177	619	2096	0.338	709	296	0.9	0.6	3.076	A
C - Port Service Access	11	3	1317	710	0.016	11	11	0.0	0.0	10.304	B
D - A160	751	188	465	1972	0.381	753	864	1.2	0.9	4.067	A
E - Conco Access	0	0	1214	1773	0.000	0	4	0.0	0.0	0.000	A

2032 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	11.59	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.59	B

Traffic Demand

Demand Set 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	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	1474	100.000
B - Manby Road		ONE HOUR	✓	551	100.000
C - Port Service Access		ONE HOUR	✓	19	100.000
D - A160		ONE HOUR	✓	942	100.000
E - Conco Access		ONE HOUR	✓	5	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	89	547	0	838	0
	B - Manby Road	222	14	3	312	0
	C - Port Service Access	0	7	0	12	0
	D - A160	549	371	9	8	5
	E - Conco Access	0	2	0	3	0

Vehicle Mix

HV %s

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	31	16	0	57	0
	B - Manby Road	28	9	100	19	0
	C - Port Service Access	0	50	0	67	0
	D - A160	89	17	75	40	100
	E - Conco Access	0	0	0	100	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.86	18.52	8.0	C	1353	2029
B - Manby Road	0.33	3.54	0.6	A	506	758
C - Port Service Access	0.04	10.19	0.1	B	17	26
D - A160	0.51	5.53	1.6	A	864	1297
E - Conco Access	0.00	3.08	0.0	A	5	7

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1110	277	310	1959	0.566	1103	645	0.0	1.8	5.724	A
B - Manby Road	415	104	708	2045	0.203	414	705	0.0	0.3	2.702	A
C - Port Service Access	14	4	1113	789	0.018	14	9	0.0	0.0	7.445	A
D - A160	709	177	249	2086	0.340	706	878	0.0	0.8	3.948	A
E - Conco Access	4	0.94	951	1914	0.002	4	4	0.0	0.0	2.691	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1325	331	372	1927	0.687	1320	772	1.8	2.9	8.081	A
B - Manby Road	495	124	848	1964	0.252	495	844	0.3	0.4	3.000	A
C - Port Service Access	17	4	1333	704	0.024	17	11	0.0	0.0	8.396	A
D - A160	847	212	298	2060	0.411	846	1052	0.8	1.0	4.493	A
E - Conco Access	4	1	1139	1813	0.002	4	4	0.0	0.0	2.843	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1623	406	455	1884	0.861	1605	944	2.9	7.5	16.678	C
B - Manby Road	607	152	1031	1859	0.326	606	1028	0.4	0.6	3.516	A
C - Port Service Access	21	5	1624	592	0.035	21	13	0.0	0.1	10.110	B
D - A160	1037	259	364	2026	0.512	1035	1281	1.0	1.6	5.503	A
E - Conco Access	6	1	1394	1676	0.003	6	5	0.0	0.0	3.077	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1623	406	456	1884	0.862	1621	947	7.5	8.0	18.524	C
B - Manby Road	607	152	1042	1853	0.327	607	1035	0.6	0.6	3.536	A
C - Port Service Access	21	5	1635	587	0.036	21	13	0.1	0.1	10.189	B
D - A160	1037	259	365	2025	0.512	1037	1290	1.6	1.6	5.529	A
E - Conco Access	6	1	1397	1674	0.003	6	6	0.0	0.0	3.081	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1325	331	373	1927	0.688	1345	776	8.0	3.1	8.761	A
B - Manby Road	495	124	864	1955	0.253	496	854	0.6	0.4	3.024	A
C - Port Service Access	17	4	1349	698	0.024	17	11	0.1	0.0	8.476	A
D - A160	847	212	300	2059	0.411	849	1066	1.6	1.1	4.521	A
E - Conco Access	4	1	1144	1810	0.002	4	5	0.0	0.0	2.849	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1110	277	312	1958	0.567	1115	649	3.1	1.8	5.895	A
B - Manby Road	415	104	716	2040	0.203	415	711	0.4	0.3	2.715	A
C - Port Service Access	14	4	1122	786	0.018	14	9	0.0	0.0	7.484	A
D - A160	709	177	250	2085	0.340	710	886	1.1	0.8	3.974	A
E - Conco Access	4	0.94	957	1911	0.002	4	4	0.0	0.0	2.698	A

2032 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	6.25	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.25	A

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	939	100.000
B - Manby Road		ONE HOUR	✓	945	100.000
C - Port Service Access		ONE HOUR	✓	15	100.000
D - A160		ONE HOUR	✓	1024	100.000
E - Conco Access		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	22	130	3	784	0
	B - Manby Road	583	6	3	353	0
	C - Port Service Access	10	0	0	5	0
	D - A160	732	260	8	19	5
	E - Conco Access	0	0	0	0	0

Vehicle Mix

HV %s

		To				
From		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
	A - Humber Road	38	24	100	90	0
	B - Manby Road	17	67	100	20	0
	C - Port Service Access	100	0	0	100	0
	D - A160	46	18	100	67	100
	E - Conco Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.53	6.87	2.0	A	862	1292
B - Manby Road	0.54	4.83	1.4	A	867	1301
C - Port Service Access	0.04	15.98	0.1	C	14	21
D - A160	0.61	6.83	2.1	A	940	1409
E - Conco Access	0.00	0.00	0.0	A	0	0

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	707	177	220	2007	0.352	703	1010	0.0	0.9	4.834	A
B - Manby Road	711	178	626	2092	0.340	709	297	0.0	0.6	3.079	A
C - Port Service Access	11	3	1325	707	0.016	11	10	0.0	0.0	10.340	B
D - A160	771	193	466	1972	0.391	767	870	0.0	0.9	4.127	A
E - Conco Access	0	0	1229	1764	0.000	0	4	0.0	0.0	0.000	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	844	211	263	1984	0.425	843	1209	0.9	1.3	5.529	A
B - Manby Road	850	212	750	2021	0.420	849	355	0.6	0.9	3.636	A
C - Port Service Access	13	3	1586	606	0.022	13	13	0.0	0.0	12.148	B
D - A160	921	230	558	1923	0.479	919	1042	0.9	1.3	4.956	A
E - Conco Access	0	0	1472	1634	0.000	0	4	0.0	0.0	0.000	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1034	258	322	1954	0.529	1031	1479	1.3	1.9	6.832	A
B - Manby Road	1040	260	918	1924	0.541	1038	435	0.9	1.4	4.805	A
C - Port Service Access	17	4	1941	469	0.035	16	15	0.0	0.1	15.913	C
D - A160	1127	282	682	1858	0.607	1124	1275	1.3	2.1	6.763	A
E - Conco Access	0	0	1801	1457	0.000	0	5	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1034	258	323	1953	0.529	1034	1483	1.9	2.0	6.874	A
B - Manby Road	1040	260	920	1923	0.541	1040	436	1.4	1.4	4.834	A
C - Port Service Access	17	4	1945	467	0.035	17	15	0.1	0.1	15.978	C
D - A160	1127	282	684	1857	0.607	1127	1278	2.1	2.1	6.829	A
E - Conco Access	0	0	1806	1455	0.000	0	6	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	844	211	264	1983	0.426	847	1215	2.0	1.3	5.573	A
B - Manby Road	850	212	754	2019	0.421	852	357	1.4	0.9	3.661	A
C - Port Service Access	13	3	1593	604	0.022	14	13	0.1	0.0	12.207	B
D - A160	921	230	560	1922	0.479	924	1047	2.1	1.3	5.010	A
E - Conco Access	0	0	1479	1630	0.000	0	5	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	707	177	221	2006	0.352	708	1016	1.3	1.0	4.874	A
B - Manby Road	711	178	631	2089	0.340	712	299	0.9	0.6	3.101	A
C - Port Service Access	11	3	1333	704	0.016	11	11	0.0	0.0	10.389	B
D - A160	771	193	468	1971	0.391	772	876	1.3	0.9	4.167	A
E - Conco Access	0	0	1237	1760	0.000	0	4	0.0	0.0	0.000	A

2032 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	12.64	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.64	B

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Humber Road		ONE HOUR	✓	1499	100.000
B - Manby Road		ONE HOUR	✓	556	100.000
C - Port Service Access		ONE HOUR	✓	19	100.000
D - A160		ONE HOUR	✓	976	100.000
E - Conco Access		ONE HOUR	✓	5	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
From	A - Humber Road	89	551	0	859	0
	B - Manby Road	227	14	3	312	0
	C - Port Service Access	0	7	0	12	0
	D - A160	583	371	9	8	5
	E - Conco Access	0	2	0	3	0

Vehicle Mix

HV %s

		To				
From		A - Humber Road	B - Manby Road	C - Port Service Access	D - A160	E - Conco Access
	A - Humber Road	31	15	0	58	0
	B - Manby Road	27	9	100	19	0
	C - Port Service Access	0	50	0	67	0
	D - A160	88	17	75	40	100
	E - Conco Access	0	0	0	100	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Humber Road	0.88	20.52	8.9	C	1376	2063
B - Manby Road	0.33	3.58	0.6	A	510	765
C - Port Service Access	0.04	10.39	0.1	B	17	26
D - A160	0.53	5.79	1.7	A	896	1343
E - Conco Access	0.00	3.12	0.0	A	5	7

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1129	282	310	1959	0.576	1121	674	0.0	1.8	5.853	A
B - Manby Road	419	105	724	2036	0.206	417	707	0.0	0.3	2.717	A
C - Port Service Access	14	4	1132	782	0.018	14	9	0.0	0.0	7.518	A
D - A160	735	184	253	2084	0.353	731	894	0.0	0.8	4.045	A
E - Conco Access	4	0.94	980	1898	0.002	4	4	0.0	0.0	2.713	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1348	337	372	1927	0.699	1343	807	1.8	3.1	8.384	A
B - Manby Road	500	125	867	1953	0.256	499	847	0.3	0.4	3.024	A
C - Port Service Access	17	4	1356	695	0.025	17	11	0.0	0.0	8.507	A
D - A160	877	219	302	2058	0.426	876	1070	0.8	1.1	4.636	A
E - Conco Access	4	1	1174	1794	0.003	4	4	0.0	0.0	2.873	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1650	413	455	1884	0.876	1629	987	3.1	8.4	18.083	C
B - Manby Road	612	153	1052	1847	0.332	611	1032	0.4	0.6	3.557	A
C - Port Service Access	21	5	1651	581	0.036	21	13	0.0	0.1	10.297	B
D - A160	1075	269	369	2023	0.531	1072	1302	1.1	1.7	5.757	A
E - Conco Access	6	1	1436	1653	0.003	6	5	0.0	0.0	3.120	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1650	413	456	1884	0.876	1648	990	8.4	8.9	20.515	C
B - Manby Road	612	153	1064	1840	0.333	612	1040	0.6	0.6	3.580	A
C - Port Service Access	21	5	1663	576	0.036	21	13	0.1	0.1	10.389	B
D - A160	1075	269	371	2022	0.531	1075	1313	1.7	1.7	5.789	A
E - Conco Access	6	1	1440	1651	0.003	6	6	0.0	0.0	3.124	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1348	337	373	1927	0.699	1370	811	8.9	3.3	9.228	A
B - Manby Road	500	125	885	1943	0.257	501	859	0.6	0.4	3.050	A
C - Port Service Access	17	4	1374	688	0.025	17	11	0.1	0.0	8.600	A
D - A160	877	219	305	2057	0.427	880	1087	1.7	1.1	4.668	A
E - Conco Access	4	1	1180	1791	0.003	4	5	0.0	0.0	2.877	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Humber Road	1129	282	312	1958	0.576	1134	678	3.3	1.9	6.041	A
B - Manby Road	419	105	732	2031	0.206	419	714	0.4	0.3	2.727	A
C - Port Service Access	14	4	1142	778	0.018	14	9	0.0	0.0	7.556	A
D - A160	735	184	254	2083	0.353	736	902	1.1	0.8	4.074	A
E - Conco Access	4	0.94	986	1895	0.002	4	4	0.0	0.0	2.718	A

Appendix TN2 M

A160/ Ulceby Road/ Habrough Road/ East Halton Road Junction Assessment Results

<h1>Junctions 10</h1>
<h2>ARCADY 10 - Roundabout Module</h2>
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Filename: A160-Habrough Road-Ulceby Road-E Halton Road.j10
Path: P:\23000's\23325\Junction Assessment\1 Base Assessment
Report generation date: 18/10/2023 16:53:32

- »2021 Base, AM
- »2021 Base, PM
- »2025 Base, AM
- »2025 Base, PM
- »2025 Base + Committed, AM
- »2025 Base + Committed, PM
- »2025 Base + Committed + Development, AM
- »2025 Base + Committed + Development, PM
- »2032 Base, AM
- »2032 Base, PM
- »2032 Base + Committed, AM
- »2032 Base + Committed, PM
- »2032 Base + Committed + Development, AM
- »2032 Base + Committed + Development, PM

Summary of junction performance

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Base						
A - A160 E	1.5	4.67	0.45	2.9	6.25	0.69
B - Habrough Road	0.6	6.09	0.37	0.2	5.66	0.17
C - A160 W	2.9	6.13	0.71	1.5	4.58	0.49
D - Ulceby Road	0.7	9.49	0.35	0.3	5.88	0.17
E - E Halton Road	0.9	8.96	0.41	0.7	5.64	0.40
2025 Base						
A - A160 E	1.6	4.89	0.47	3.4	7.08	0.72
B - Habrough Road	0.7	6.51	0.40	0.2	6.04	0.18
C - A160 W	3.5	7.01	0.75	1.7	4.83	0.51
D - Ulceby Road	0.8	10.62	0.39	0.3	6.13	0.18
E - E Halton Road	1.0	9.91	0.45	0.8	5.97	0.42
2025 Base + Committed						
A - A160 E	2.0	5.55	0.54	8.1	14.88	0.87
B - Habrough Road	0.8	7.62	0.44	0.3	8.24	0.24
C - A160 W	8.4	14.75	0.88	2.5	6.04	0.61
D - Ulceby Road	1.2	15.88	0.48	0.4	7.05	0.21
E - E Halton Road	1.6	13.92	0.56	1.4	8.23	0.56
2025 Base + Committed + Development						
A - A160 E	2.1	5.64	0.55	8.9	16.24	0.88
B - Habrough Road	0.8	7.74	0.44	0.3	8.44	0.24
C - A160 W	9.5	16.45	0.89	2.7	6.35	0.63
D - Ulceby Road	1.2	16.64	0.50	0.4	7.24	0.21
E - E Halton Road	1.6	14.52	0.57	1.4	8.56	0.57
2032 Base						
A - A160 E	1.8	5.28	0.51	4.5	8.86	0.78
B - Habrough Road	0.8	7.37	0.44	0.3	6.70	0.21
C - A160 W	4.8	9.04	0.80	1.9	5.27	0.55
D - Ulceby Road	1.0	12.96	0.45	0.4	6.54	0.20
E - E Halton Road	1.3	11.90	0.51	1.0	6.58	0.46
2032 Base + Committed						
A - A160 E	2.3	6.05	0.57	13.6	24.29	0.92
B - Habrough Road	1.0	8.80	0.49	0.4	9.50	0.28
C - A160 W	15.0	25.47	0.94	2.9	6.74	0.65
D - Ulceby Road	1.7	21.46	0.58	0.4	7.61	0.23
E - E Halton Road	2.1	18.15	0.64	1.7	9.49	0.60
2032 Base + Committed + Development						
A - A160 E	2.4	6.17	0.58	15.5	27.46	0.93
B - Habrough Road	1.0	8.97	0.49	0.4	9.74	0.28
C - A160 W	17.9	29.92	0.95	3.1	7.12	0.67
D - Ulceby Road	1.8	22.77	0.59	0.4	7.83	0.23
E - E Halton Road	2.3	19.11	0.65	1.7	9.94	0.61

Values shown are the highest values encountered over all time segments. Delay is the maximum value of Av. delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	18/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\Arcady
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

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	2021 Base	AM	ONE HOUR	06:45	08:15	15	✓
D2	2021 Base	PM	ONE HOUR	15:45	17:15	15	✓
D3	2025 Base	AM	ONE HOUR	06:45	08:15	15	✓
D4	2025 Base	PM	ONE HOUR	15:45	17:15	15	✓
D5	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D6	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D7	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D8	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓
D9	2032 Base	AM	ONE HOUR	06:45	08:15	15	✓
D10	2032 Base	PM	ONE HOUR	15:45	17:15	15	✓
D11	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D12	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D13	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D14	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2021 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	6.20	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.20	A

Arms

Arms

Arm	Name	Description	No give-way line
A	A160 E		
B	Habrough Road		
C	A160 W		
D	Ulceby Road		
E	E Halton Road		

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
A - A160 E	8.00	9.20	20.0	50.0	100.0	35.0		
B - Habrough Road	3.80	7.00	13.7	15.0	100.0	51.0		
C - A160 W	7.80	9.40	15.0	36.0	100.0	38.0		
D - Ulceby Road	3.90	6.90	10.2	33.0	100.0	35.0		
E - E Halton Road	3.60	7.50	12.5	27.0	100.0	38.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A160 E	0.601	2762
B - Habrough Road	0.410	1554
C - A160 W	0.589	2708
D - Ulceby Road	0.444	1653
E - E Halton Road	0.440	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	2021 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1021	100.000
B - Habrough Road		ONE HOUR	✓	326	100.000
C - A160 W		ONE HOUR	✓	1581	100.000
D - Ulceby Road		ONE HOUR	✓	238	100.000
E - E Halton Road		ONE HOUR	✓	332	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	2	30	866	67	56
	B - Habrough Road	148	0	55	4	119
	C - A160 W	1196	39	0	57	289
	D - Ulceby Road	115	9	87	0	27
	E - E Halton Road	69	46	205	12	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	69	82	62	55
	B - Habrough Road	1	0	6	33	4
	C - A160 W	21	3	0	49	13
	D - Ulceby Road	35	13	22	0	32
	E - E Halton Road	39	7	32	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.45	4.67	1.5	A	937	1405
B - Habrough Road	0.37	6.09	0.6	A	299	449
C - A160 W	0.71	6.13	2.9	A	1451	2176
D - Ulceby Road	0.35	9.49	0.7	A	218	328
E - E Halton Road	0.41	8.96	0.9	A	305	457

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	769	192	298	2583	0.298	766	1147	0.0	0.8	3.529	A
B - Habrough Road	245	61	971	1156	0.212	244	93	0.0	0.3	4.071	A
C - A160 W	1190	298	306	2528	0.471	1186	909	0.0	1.1	3.212	A
D - Ulceby Road	179	45	1387	1038	0.173	178	105	0.0	0.3	5.381	A
E - E Halton Road	250	62	1197	1130	0.221	248	368	0.0	0.4	5.253	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	918	229	357	2547	0.360	917	1373	0.8	1.0	3.938	A
B - Habrough Road	293	73	1163	1077	0.272	293	111	0.3	0.4	4.735	A
C - A160 W	1421	355	366	2493	0.570	1419	1089	1.1	1.6	4.009	A
D - Ulceby Road	214	53	1660	917	0.233	213	126	0.3	0.4	6.582	A
E - E Halton Road	298	75	1433	1026	0.291	298	441	0.4	0.5	6.363	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1124	281	436	2500	0.450	1122	1679	1.0	1.4	4.659	A
B - Habrough Road	359	90	1423	970	0.370	358	136	0.4	0.6	6.060	A
C - A160 W	1741	435	448	2444	0.712	1735	1333	1.6	2.9	6.035	A
D - Ulceby Road	262	66	2030	753	0.348	261	154	0.4	0.7	9.388	A
E - E Halton Road	366	91	1752	885	0.413	364	539	0.5	0.9	8.871	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1124	281	438	2499	0.450	1124	1684	1.4	1.5	4.674	A
B - Habrough Road	359	90	1426	969	0.370	359	137	0.6	0.6	6.089	A
C - A160 W	1741	435	449	2444	0.712	1741	1335	2.9	2.9	6.129	A
D - Ulceby Road	262	66	2036	750	0.349	262	154	0.7	0.7	9.487	A
E - E Halton Road	366	91	1757	883	0.414	365	541	0.9	0.9	8.959	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	918	229	360	2546	0.361	920	1381	1.5	1.0	3.955	A
B - Habrough Road	293	73	1167	1075	0.273	294	112	0.6	0.4	4.761	A
C - A160 W	1421	355	368	2492	0.570	1427	1093	2.9	1.6	4.067	A
D - Ulceby Road	214	53	1668	913	0.234	215	126	0.7	0.4	6.648	A
E - E Halton Road	298	75	1440	1022	0.292	300	443	0.9	0.5	6.429	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	769	192	300	2581	0.298	770	1154	1.0	0.8	3.550	A
B - Habrough Road	245	61	977	1153	0.213	246	94	0.4	0.3	4.097	A
C - A160 W	1190	298	308	2527	0.471	1192	915	1.6	1.1	3.236	A
D - Ulceby Road	179	45	1394	1035	0.173	180	106	0.4	0.3	5.421	A
E - E Halton Road	250	62	1204	1127	0.222	251	370	0.5	0.4	5.298	A

2021 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	5.59	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.59	A

Traffic Demand

Demand Set 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	2021 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1513	100.000
B - Habrough Road		ONE HOUR	✓	118	100.000
C - A160 W		ONE HOUR	✓	1080	100.000
D - Ulceby Road		ONE HOUR	✓	162	100.000
E - E Halton Road		ONE HOUR	✓	434	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	23	115	1081	102	192
	B - Habrough Road	18	0	39	18	43
	C - A160 W	716	63	0	102	199
	D - Ulceby Road	52	15	59	0	36
	E - E Halton Road	59	110	231	34	0

Vehicle Mix

HV %s

		To				
From		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
	A - A160 E	100	1	30	42	59
	B - Habrough Road	6	0	0	0	2
	C - A160 W	78	5	0	32	37
	D - Ulceby Road	52	7	38	0	50
	E - E Halton Road	42	1	13	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.69	6.25	2.9	A	1388	2083
B - Habrough Road	0.17	5.66	0.2	A	108	162
C - A160 W	0.49	4.58	1.5	A	991	1487
D - Ulceby Road	0.17	5.88	0.3	A	149	223
E - E Halton Road	0.40	5.64	0.7	A	398	597

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1139	285	384	2531	0.450	1135	651	0.0	1.1	3.384	A
B - Habrough Road	89	22	1291	1024	0.087	88	227	0.0	0.1	3.907	A
C - A160 W	813	203	322	2518	0.323	810	1057	0.0	0.7	3.318	A
D - Ulceby Road	122	30	941	1236	0.099	121	192	0.0	0.2	4.548	A
E - E Halton Road	327	82	709	1344	0.243	325	352	0.0	0.4	3.979	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1360	340	460	2486	0.547	1358	779	1.1	1.6	4.195	A
B - Habrough Road	106	27	1546	920	0.115	106	272	0.1	0.1	4.494	A
C - A160 W	971	243	386	2481	0.391	970	1266	0.7	1.0	3.756	A
D - Ulceby Road	146	36	1126	1154	0.126	145	230	0.2	0.2	5.028	A
E - E Halton Road	390	98	849	1283	0.304	390	422	0.4	0.5	4.544	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1666	416	563	2424	0.687	1661	954	1.6	2.8	6.170	A
B - Habrough Road	130	32	1891	778	0.167	130	333	0.1	0.2	5.636	A
C - A160 W	1189	297	472	2430	0.489	1187	1548	1.0	1.5	4.560	A
D - Ulceby Road	178	45	1378	1042	0.171	178	281	0.2	0.3	5.867	A
E - E Halton Road	478	119	1040	1199	0.399	477	516	0.5	0.7	5.616	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1666	416	564	2423	0.687	1666	956	2.8	2.9	6.253	A
B - Habrough Road	130	32	1896	776	0.167	130	334	0.2	0.2	5.659	A
C - A160 W	1189	297	473	2429	0.489	1189	1552	1.5	1.5	4.577	A
D - Ulceby Road	178	45	1381	1041	0.171	178	282	0.3	0.3	5.880	A
E - E Halton Road	478	119	1042	1198	0.399	478	517	0.7	0.7	5.638	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1360	340	461	2485	0.547	1365	782	2.9	1.6	4.251	A
B - Habrough Road	106	27	1553	917	0.116	106	273	0.2	0.1	4.515	A
C - A160 W	971	243	388	2480	0.392	973	1272	1.5	1.0	3.771	A
D - Ulceby Road	146	36	1130	1152	0.126	146	231	0.3	0.2	5.044	A
E - E Halton Road	390	98	852	1281	0.304	391	424	0.7	0.5	4.566	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1139	285	386	2530	0.450	1141	654	1.6	1.1	3.416	A
B - Habrough Road	89	22	1299	1021	0.087	89	228	0.1	0.1	3.925	A
C - A160 W	813	203	324	2517	0.323	814	1063	1.0	0.8	3.335	A
D - Ulceby Road	122	30	945	1234	0.099	122	193	0.2	0.2	4.562	A
E - E Halton Road	327	82	713	1343	0.243	327	354	0.5	0.4	4.001	A

2025 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	6.87	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.87	A

Traffic Demand

Demand Set 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	2025 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1067	100.000
B - Habrough Road		ONE HOUR	✓	339	100.000
C - A160 W		ONE HOUR	✓	1652	100.000
D - Ulceby Road		ONE HOUR	✓	249	100.000
E - E Halton Road		ONE HOUR	✓	346	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	2	32	904	70	59
	B - Habrough Road	154	0	57	4	124
	C - A160 W	1249	41	0	60	302
	D - Ulceby Road	121	10	90	0	28
	E - E Halton Road	72	48	214	12	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	69	82	62	55
	B - Habrough Road	1	0	6	33	4
	C - A160 W	21	3	0	49	13
	D - Ulceby Road	35	13	22	0	32
	E - E Halton Road	39	7	32	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.47	4.89	1.6	A	979	1469
B - Habrough Road	0.40	6.51	0.7	A	311	467
C - A160 W	0.75	7.01	3.5	A	1516	2274
D - Ulceby Road	0.39	10.62	0.8	B	228	343
E - E Halton Road	0.45	9.91	1.0	A	317	476

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	803	201	311	2575	0.312	800	1198	0.0	0.8	3.613	A
B - Habrough Road	255	64	1013	1139	0.224	254	98	0.0	0.3	4.195	A
C - A160 W	1244	311	319	2521	0.493	1239	948	0.0	1.2	3.351	A
D - Ulceby Road	187	47	1448	1011	0.185	186	109	0.0	0.3	5.611	A
E - E Halton Road	260	65	1250	1106	0.235	259	385	0.0	0.4	5.462	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	959	240	372	2538	0.378	958	1434	0.8	1.1	4.063	A
B - Habrough Road	305	76	1213	1056	0.288	304	118	0.3	0.4	4.936	A
C - A160 W	1485	371	382	2484	0.598	1483	1136	1.2	1.8	4.297	A
D - Ulceby Road	224	56	1733	884	0.253	223	131	0.3	0.4	7.001	A
E - E Halton Road	311	78	1496	998	0.312	310	460	0.4	0.6	6.737	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1175	294	455	2489	0.472	1173	1753	1.1	1.6	4.876	A
B - Habrough Road	373	93	1484	945	0.395	372	144	0.4	0.7	6.474	A
C - A160 W	1819	455	467	2433	0.748	1812	1389	1.8	3.4	6.867	A
D - Ulceby Road	274	69	2119	714	0.384	273	160	0.4	0.8	10.477	B
E - E Halton Road	381	95	1828	851	0.447	379	563	0.6	1.0	9.781	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1175	294	457	2487	0.472	1175	1759	1.6	1.6	4.894	A
B - Habrough Road	373	93	1487	944	0.395	373	144	0.7	0.7	6.511	A
C - A160 W	1819	455	468	2433	0.748	1819	1393	3.4	3.5	7.015	A
D - Ulceby Road	274	69	2126	710	0.386	274	161	0.8	0.8	10.620	B
E - E Halton Road	381	95	1835	849	0.449	381	565	1.0	1.0	9.913	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	959	240	375	2536	0.378	961	1443	1.6	1.1	4.084	A
B - Habrough Road	305	76	1218	1054	0.289	306	118	0.7	0.4	4.969	A
C - A160 W	1485	371	383	2483	0.598	1492	1141	3.5	1.8	4.380	A
D - Ulceby Road	224	56	1743	880	0.254	225	132	0.8	0.4	7.094	A
E - E Halton Road	311	78	1506	994	0.313	313	463	1.0	0.6	6.827	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	803	201	313	2574	0.312	804	1206	1.1	0.8	3.632	A
B - Habrough Road	255	64	1019	1136	0.225	256	99	0.4	0.3	4.224	A
C - A160 W	1244	311	321	2519	0.494	1246	954	1.8	1.2	3.391	A
D - Ulceby Road	187	47	1457	1007	0.186	188	110	0.4	0.3	5.660	A
E - E Halton Road	260	65	1258	1103	0.236	261	387	0.6	0.4	5.514	A

2025 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	6.12	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.12	A

Traffic Demand

Demand Set 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	2025 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1580	100.000
B - Habrough Road		ONE HOUR	✓	124	100.000
C - A160 W		ONE HOUR	✓	1127	100.000
D - Ulceby Road		ONE HOUR	✓	169	100.000
E - E Halton Road		ONE HOUR	✓	453	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	24	120	1128	107	201
	B - Habrough Road	19	0	41	19	45
	C - A160 W	747	66	0	106	208
	D - Ulceby Road	54	16	61	0	38
	E - E Halton Road	61	115	241	36	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	1	30	42	59
	B - Habrough Road	6	0	0	0	2
	C - A160 W	78	5	0	32	37
	D - Ulceby Road	52	8	38	0	50
	E - E Halton Road	42	1	13	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.72	7.08	3.4	A	1450	2175
B - Habrough Road	0.18	6.04	0.2	A	114	171
C - A160 W	0.51	4.83	1.7	A	1034	1551
D - Ulceby Road	0.18	6.13	0.3	A	155	233
E - E Halton Road	0.42	5.97	0.8	A	416	624

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1190	297	401	2521	0.472	1185	679	0.0	1.2	3.536	A
B - Habrough Road	93	23	1348	1001	0.093	93	238	0.0	0.1	4.026	A
C - A160 W	848	212	338	2509	0.338	845	1103	0.0	0.8	3.407	A
D - Ulceby Road	127	32	982	1217	0.105	127	201	0.0	0.2	4.649	A
E - E Halton Road	341	85	740	1331	0.256	339	369	0.0	0.4	4.090	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1420	355	480	2473	0.574	1418	813	1.2	1.8	4.481	A
B - Habrough Road	111	28	1614	892	0.125	111	285	0.1	0.1	4.684	A
C - A160 W	1013	253	405	2470	0.410	1012	1320	0.8	1.1	3.891	A
D - Ulceby Road	152	38	1176	1131	0.134	152	241	0.2	0.2	5.178	A
E - E Halton Road	407	102	886	1266	0.322	407	442	0.4	0.5	4.719	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1740	435	588	2409	0.722	1733	995	1.8	3.3	6.951	A
B - Habrough Road	137	34	1973	745	0.183	136	348	0.1	0.2	6.010	A
C - A160 W	1241	310	495	2417	0.513	1239	1614	1.1	1.6	4.810	A
D - Ulceby Road	186	47	1439	1015	0.183	186	294	0.2	0.3	6.118	A
E - E Halton Road	499	125	1085	1179	0.423	498	540	0.5	0.8	5.948	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1740	435	589	2408	0.722	1739	996	3.3	3.4	7.084	A
B - Habrough Road	137	34	1979	742	0.184	137	349	0.2	0.2	6.041	A
C - A160 W	1241	310	497	2416	0.514	1241	1619	1.6	1.7	4.831	A
D - Ulceby Road	186	47	1442	1013	0.184	186	295	0.3	0.3	6.133	A
E - E Halton Road	499	125	1087	1178	0.423	499	542	0.8	0.8	5.975	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1420	355	482	2472	0.575	1427	815	3.4	1.8	4.561	A
B - Habrough Road	111	28	1623	888	0.126	112	286	0.2	0.1	4.713	A
C - A160 W	1013	253	407	2468	0.410	1015	1328	1.7	1.1	3.914	A
D - Ulceby Road	152	38	1181	1129	0.135	152	242	0.3	0.2	5.197	A
E - E Halton Road	407	102	889	1265	0.322	408	444	0.8	0.5	4.744	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1190	297	403	2519	0.472	1192	682	1.8	1.2	3.575	A
B - Habrough Road	93	23	1356	998	0.094	94	239	0.1	0.1	4.046	A
C - A160 W	848	212	340	2508	0.338	850	1110	1.1	0.8	3.425	A
D - Ulceby Road	127	32	988	1215	0.105	127	202	0.2	0.2	4.668	A
E - E Halton Road	341	85	744	1329	0.257	342	371	0.5	0.4	4.114	A

2025 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	11.45	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.45	B

Traffic Demand

Demand Set 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	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1208	100.000
B - Habrough Road		ONE HOUR	✓	345	100.000
C - A160 W		ONE HOUR	✓	1944	100.000
D - Ulceby Road		ONE HOUR	✓	249	100.000
E - E Halton Road		ONE HOUR	✓	375	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	2	32	1045	70	59
	B - Habrough Road	160	0	57	4	124
	C - A160 W	1476	41	0	60	367
	D - Ulceby Road	121	10	90	0	28
	E - E Halton Road	72	48	243	12	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	66	78	62	55
	B - Habrough Road	1	0	6	33	4
	C - A160 W	23	3	0	49	11
	D - Ulceby Road	35	13	22	0	32
	E - E Halton Road	39	7	26	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.54	5.55	2.0	A	1108	1663
B - Habrough Road	0.44	7.62	0.8	A	317	475
C - A160 W	0.88	14.75	8.4	B	1784	2676
D - Ulceby Road	0.48	15.88	1.2	C	228	343
E - E Halton Road	0.56	13.92	1.6	B	344	516

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	909	227	332	2562	0.355	906	1372	0.0	1.0	3.804	A
B - Habrough Road	260	65	1140	1086	0.239	258	98	0.0	0.3	4.479	A
C - A160 W	1464	366	323	2518	0.581	1457	1075	0.0	1.7	4.070	A
D - Ulceby Road	187	47	1670	912	0.205	186	109	0.0	0.3	6.369	A
E - E Halton Road	282	71	1423	1030	0.274	280	433	0.0	0.5	6.003	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1086	271	398	2523	0.430	1085	1642	1.0	1.3	4.386	A
B - Habrough Road	310	78	1365	994	0.312	310	117	0.3	0.5	5.421	A
C - A160 W	1748	437	387	2480	0.705	1743	1288	1.7	2.8	5.854	A
D - Ulceby Road	224	56	1999	767	0.292	223	131	0.3	0.5	8.512	A
E - E Halton Road	337	84	1703	907	0.372	336	518	0.5	0.7	7.890	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1330	333	485	2470	0.538	1327	1998	1.3	2.0	5.510	A
B - Habrough Road	380	95	1669	869	0.437	379	143	0.5	0.8	7.548	A
C - A160 W	2140	535	473	2430	0.881	2120	1574	2.8	8.0	13.229	B
D - Ulceby Road	274	69	2433	574	0.478	272	160	0.5	1.1	15.201	C
E - E Halton Road	413	103	2073	744	0.555	410	632	0.7	1.5	13.379	B

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1330	333	489	2468	0.539	1330	2014	2.0	2.0	5.547	A
B - Habrough Road	380	95	1674	867	0.438	380	144	0.8	0.8	7.622	A
C - A160 W	2140	535	474	2429	0.881	2139	1580	8.0	8.4	14.746	B
D - Ulceby Road	274	69	2452	565	0.485	274	161	1.1	1.2	15.876	C
E - E Halton Road	413	103	2090	736	0.561	413	636	1.5	1.6	13.923	B

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1086	271	403	2520	0.431	1089	1665	2.0	1.3	4.423	A
B - Habrough Road	310	78	1373	991	0.313	311	119	0.8	0.5	5.479	A
C - A160 W	1748	437	389	2479	0.705	1769	1296	8.4	2.9	6.304	A
D - Ulceby Road	224	56	2026	755	0.297	226	132	1.2	0.6	8.815	A
E - E Halton Road	337	84	1728	896	0.376	340	525	1.6	0.8	8.164	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	909	227	336	2560	0.355	911	1383	1.3	1.0	3.831	A
B - Habrough Road	260	65	1148	1083	0.240	260	99	0.5	0.3	4.516	A
C - A160 W	1464	366	325	2517	0.582	1469	1083	2.9	1.7	4.164	A
D - Ulceby Road	187	47	1684	906	0.207	188	110	0.6	0.3	6.460	A
E - E Halton Road	282	71	1435	1025	0.276	283	436	0.8	0.5	6.095	A

2025 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	10.49	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.49	B

Traffic Demand

Demand Set 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	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1845	100.000
B - Habrough Road		ONE HOUR	✓	126	100.000
C - A160 W		ONE HOUR	✓	1348	100.000
D - Ulceby Road		ONE HOUR	✓	169	100.000
E - E Halton Road		ONE HOUR	✓	548	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	24	125	1388	107	201
	B - Habrough Road	21	0	41	19	45
	C - A160 W	936	66	0	106	240
	D - Ulceby Road	54	16	61	0	38
	E - E Halton Road	61	115	336	36	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	1	31	42	59
	B - Habrough Road	5	0	0	0	2
	C - A160 W	75	5	0	32	30
	D - Ulceby Road	52	7	38	0	50
	E - E Halton Road	42	1	9	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.87	14.88	8.1	B	1693	2540
B - Habrough Road	0.24	8.24	0.3	A	116	173
C - A160 W	0.61	6.04	2.5	A	1237	1855
D - Ulceby Road	0.21	7.05	0.4	A	155	233
E - E Halton Road	0.56	8.23	1.4	A	503	754

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1389	347	472	2478	0.560	1382	822	0.0	1.7	4.313	A
B - Habrough Road	95	24	1613	892	0.106	94	241	0.0	0.1	4.577	A
C - A160 W	1015	254	339	2508	0.405	1011	1368	0.0	1.1	3.745	A
D - Ulceby Road	127	32	1149	1143	0.111	127	201	0.0	0.2	4.982	A
E - E Halton Road	413	103	883	1268	0.325	410	393	0.0	0.5	4.622	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1659	415	565	2422	0.685	1654	984	1.7	2.8	6.152	A
B - Habrough Road	113	28	1930	762	0.149	113	289	0.1	0.2	5.631	A
C - A160 W	1212	303	406	2469	0.491	1210	1637	1.1	1.5	4.462	A
D - Ulceby Road	152	38	1376	1043	0.146	152	240	0.2	0.2	5.686	A
E - E Halton Road	493	123	1057	1191	0.414	492	470	0.5	0.8	5.671	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	2031	508	691	2347	0.866	2012	1203	2.8	7.7	13.488	B
B - Habrough Road	139	35	2351	590	0.235	138	352	0.2	0.3	8.085	A
C - A160 W	1484	371	495	2417	0.614	1480	1994	1.5	2.4	5.984	A
D - Ulceby Road	186	47	1682	907	0.205	186	293	0.2	0.4	7.019	A
E - E Halton Road	603	151	1293	1087	0.555	601	574	0.8	1.3	8.134	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	2031	508	694	2345	0.866	2030	1207	7.7	8.1	14.882	B
B - Habrough Road	139	35	2369	582	0.238	139	354	0.3	0.3	8.243	A
C - A160 W	1484	371	498	2415	0.615	1484	2009	2.4	2.5	6.043	A
D - Ulceby Road	186	47	1688	905	0.206	186	295	0.4	0.4	7.053	A
E - E Halton Road	603	151	1297	1086	0.556	603	577	1.3	1.4	8.233	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1659	415	569	2420	0.685	1679	989	8.1	2.9	6.585	A
B - Habrough Road	113	28	1956	751	0.151	114	292	0.3	0.2	5.738	A
C - A160 W	1212	303	411	2466	0.491	1216	1659	2.5	1.5	4.512	A
D - Ulceby Road	152	38	1384	1039	0.146	152	243	0.4	0.2	5.719	A
E - E Halton Road	493	123	1063	1189	0.414	495	474	1.4	0.8	5.745	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1389	347	475	2476	0.561	1394	827	2.9	1.7	4.414	A
B - Habrough Road	95	24	1626	887	0.107	95	243	0.2	0.1	4.619	A
C - A160 W	1015	254	342	2507	0.405	1017	1379	1.5	1.1	3.779	A
D - Ulceby Road	127	32	1157	1140	0.112	127	202	0.2	0.2	5.006	A
E - E Halton Road	413	103	889	1265	0.326	414	395	0.8	0.5	4.669	A

2025 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	12.39	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.39	B

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1226	100.000
B - Habrough Road		ONE HOUR	✓	345	100.000
C - A160 W		ONE HOUR	✓	1972	100.000
D - Ulceby Road		ONE HOUR	✓	249	100.000
E - E Halton Road		ONE HOUR	✓	375	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	2	34	1061	70	59
	B - Habrough Road	160	0	57	4	124
	C - A160 W	1504	41	0	60	367
	D - Ulceby Road	121	10	90	0	28
	E - E Halton Road	72	48	243	12	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	60	78	62	55
	B - Habrough Road	1	0	6	33	4
	C - A160 W	24	3	0	49	11
	D - Ulceby Road	35	13	22	0	32
	E - E Halton Road	39	7	26	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.55	5.64	2.1	A	1125	1687
B - Habrough Road	0.44	7.74	0.8	A	317	475
C - A160 W	0.89	16.45	9.5	C	1810	2714
D - Ulceby Road	0.50	16.64	1.2	C	228	343
E - E Halton Road	0.57	14.52	1.6	B	344	516

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	923	231	332	2562	0.360	919	1393	0.0	1.0	3.830	A
B - Habrough Road	260	65	1152	1082	0.240	258	100	0.0	0.3	4.512	A
C - A160 W	1485	371	323	2518	0.590	1478	1087	0.0	1.7	4.176	A
D - Ulceby Road	187	47	1691	903	0.208	186	109	0.0	0.3	6.451	A
E - E Halton Road	282	71	1444	1021	0.277	280	433	0.0	0.5	6.078	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1102	276	398	2523	0.437	1101	1667	1.0	1.3	4.431	A
B - Habrough Road	310	78	1379	988	0.314	310	119	0.3	0.5	5.468	A
C - A160 W	1773	443	387	2480	0.715	1768	1302	1.7	3.0	6.093	A
D - Ulceby Road	224	56	2024	756	0.296	223	131	0.3	0.5	8.686	A
E - E Halton Road	337	84	1728	896	0.376	336	518	0.5	0.7	8.041	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1350	337	485	2471	0.546	1347	2026	1.3	2.1	5.599	A
B - Habrough Road	380	95	1686	862	0.441	379	145	0.5	0.8	7.657	A
C - A160 W	2171	543	473	2430	0.894	2148	1592	3.0	8.9	14.438	B
D - Ulceby Road	274	69	2461	562	0.488	272	160	0.5	1.2	15.828	C
E - E Halton Road	413	103	2101	731	0.565	410	631	0.7	1.6	13.877	B

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1350	337	489	2468	0.547	1350	2045	2.1	2.1	5.640	A
B - Habrough Road	380	95	1692	860	0.442	380	146	0.8	0.8	7.735	A
C - A160 W	2171	543	474	2429	0.894	2169	1597	8.9	9.5	16.454	C
D - Ulceby Road	274	69	2483	552	0.497	274	161	1.2	1.2	16.635	C
E - E Halton Road	413	103	2121	723	0.571	413	636	1.6	1.6	14.517	B

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1102	276	403	2519	0.437	1105	1693	2.1	1.4	4.469	A
B - Habrough Road	310	78	1388	985	0.315	311	121	0.8	0.5	5.529	A
C - A160 W	1773	443	389	2479	0.715	1798	1310	9.5	3.1	6.650	A
D - Ulceby Road	224	56	2055	742	0.302	227	132	1.2	0.6	9.039	A
E - E Halton Road	337	84	1756	883	0.382	341	525	1.6	0.8	8.359	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	923	231	336	2560	0.361	925	1405	1.4	1.0	3.860	A
B - Habrough Road	260	65	1160	1078	0.241	260	100	0.5	0.3	4.543	A
C - A160 W	1485	371	325	2517	0.590	1490	1095	3.1	1.8	4.280	A
D - Ulceby Road	187	47	1705	897	0.209	188	110	0.6	0.3	6.546	A
E - E Halton Road	282	71	1457	1015	0.278	284	437	0.8	0.5	6.173	A

2025 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	11.25	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.25	B

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1869	100.000
B - Habrough Road		ONE HOUR	✓	126	100.000
C - A160 W		ONE HOUR	✓	1386	100.000
D - Ulceby Road		ONE HOUR	✓	169	100.000
E - E Halton Road		ONE HOUR	✓	548	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	24	126	1411	107	201
	B - Habrough Road	21	0	41	19	45
	C - A160 W	974	66	0	106	240
	D - Ulceby Road	54	16	61	0	38
	E - E Halton Road	61	115	336	36	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	1	32	42	59
	B - Habrough Road	5	0	0	0	2
	C - A160 W	75	5	0	32	30
	D - Ulceby Road	52	7	38	0	50
	E - E Halton Road	42	1	9	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.88	16.24	8.9	C	1715	2573
B - Habrough Road	0.24	8.44	0.3	A	116	173
C - A160 W	0.63	6.35	2.7	A	1272	1908
D - Ulceby Road	0.21	7.24	0.4	A	155	233
E - E Halton Road	0.57	8.56	1.4	A	503	754

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1407	352	472	2478	0.568	1400	850	0.0	1.7	4.406	A
B - Habrough Road	95	24	1630	885	0.107	94	242	0.0	0.1	4.618	A
C - A160 W	1043	261	339	2508	0.416	1039	1385	0.0	1.1	3.828	A
D - Ulceby Road	127	32	1178	1131	0.113	127	201	0.0	0.2	5.044	A
E - E Halton Road	413	103	911	1255	0.329	410	393	0.0	0.5	4.690	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1680	420	565	2422	0.694	1675	1018	1.7	2.9	6.358	A
B - Habrough Road	113	28	1951	754	0.150	113	290	0.1	0.2	5.704	A
C - A160 W	1246	311	406	2469	0.505	1244	1658	1.1	1.6	4.606	A
D - Ulceby Road	152	38	1410	1028	0.148	152	240	0.2	0.2	5.784	A
E - E Halton Road	493	123	1091	1176	0.419	492	470	0.5	0.8	5.795	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	2058	514	691	2347	0.877	2036	1245	2.9	8.4	14.477	B
B - Habrough Road	139	35	2374	580	0.239	138	353	0.2	0.3	8.261	A
C - A160 W	1526	382	494	2417	0.631	1522	2018	1.6	2.6	6.272	A
D - Ulceby Road	186	47	1723	889	0.209	186	293	0.2	0.4	7.202	A
E - E Halton Road	603	151	1335	1069	0.565	601	574	0.8	1.4	8.444	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	2058	514	694	2345	0.877	2056	1248	8.4	8.9	16.239	C
B - Habrough Road	139	35	2394	572	0.243	139	355	0.3	0.3	8.438	A
C - A160 W	1526	382	498	2415	0.632	1526	2034	2.6	2.7	6.345	A
D - Ulceby Road	186	47	1729	886	0.210	186	295	0.4	0.4	7.239	A
E - E Halton Road	603	151	1339	1067	0.565	603	577	1.4	1.4	8.560	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1680	420	569	2420	0.694	1703	1023	8.9	3.1	6.876	A
B - Habrough Road	113	28	1980	742	0.153	114	293	0.3	0.2	5.824	A
C - A160 W	1246	311	412	2466	0.505	1250	1682	2.7	1.6	4.659	A
D - Ulceby Road	152	38	1419	1024	0.148	152	243	0.4	0.2	5.821	A
E - E Halton Road	493	123	1097	1174	0.420	495	475	1.4	0.8	5.874	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1407	352	475	2476	0.568	1412	855	3.1	1.8	4.515	A
B - Habrough Road	95	24	1644	880	0.108	95	244	0.2	0.1	4.659	A
C - A160 W	1043	261	342	2507	0.416	1045	1397	1.6	1.1	3.867	A
D - Ulceby Road	127	32	1185	1127	0.113	128	202	0.2	0.2	5.070	A
E - E Halton Road	413	103	917	1253	0.329	414	396	0.8	0.5	4.740	A

2032 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	8.32	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.32	A

Traffic Demand

Demand Set 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	2032 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1138	100.000
B - Habrough Road		ONE HOUR	✓	362	100.000
C - A160 W		ONE HOUR	✓	1761	100.000
D - Ulceby Road		ONE HOUR	✓	264	100.000
E - E Halton Road		ONE HOUR	✓	369	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	3	34	964	74	63
	B - Habrough Road	164	0	61	5	132
	C - A160 W	1331	44	0	64	322
	D - Ulceby Road	128	10	96	0	30
	E - E Halton Road	77	51	228	13	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	69	82	62	55
	B - Habrough Road	1	0	6	33	4
	C - A160 W	21	3	0	49	13
	D - Ulceby Road	35	13	22	0	32
	E - E Halton Road	39	7	32	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.51	5.28	1.8	A	1044	1566
B - Habrough Road	0.44	7.37	0.8	A	332	498
C - A160 W	0.80	9.04	4.8	A	1616	2424
D - Ulceby Road	0.45	12.96	1.0	B	242	363
E - E Halton Road	0.51	11.90	1.3	B	339	508

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	857	214	331	2563	0.334	853	1276	0.0	0.9	3.749	A
B - Habrough Road	273	68	1080	1111	0.245	271	104	0.0	0.3	4.418	A
C - A160 W	1326	331	340	2508	0.529	1320	1011	0.0	1.3	3.614	A
D - Ulceby Road	199	50	1544	969	0.205	197	117	0.0	0.3	6.001	A
E - E Halton Road	278	69	1331	1071	0.260	276	410	0.0	0.4	5.824	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1023	256	396	2524	0.405	1022	1528	0.9	1.2	4.274	A
B - Habrough Road	325	81	1293	1023	0.318	325	125	0.3	0.5	5.316	A
C - A160 W	1583	396	407	2468	0.641	1580	1211	1.3	2.1	4.835	A
D - Ulceby Road	237	59	1847	834	0.285	237	140	0.3	0.5	7.751	A
E - E Halton Road	332	83	1593	955	0.347	331	491	0.4	0.7	7.418	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1253	313	484	2471	0.507	1251	1865	1.2	1.8	5.252	A
B - Habrough Road	399	100	1582	905	0.440	397	152	0.5	0.8	7.301	A
C - A160 W	1939	485	498	2415	0.803	1929	1481	2.1	4.7	8.692	A
D - Ulceby Road	291	73	2256	653	0.445	289	171	0.5	1.0	12.663	B
E - E Halton Road	406	102	1945	800	0.508	404	600	0.7	1.3	11.629	B

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1253	313	487	2470	0.507	1253	1875	1.8	1.8	5.280	A
B - Habrough Road	399	100	1586	903	0.441	399	153	0.8	0.8	7.365	A
C - A160 W	1939	485	500	2414	0.803	1938	1485	4.7	4.8	9.044	A
D - Ulceby Road	291	73	2267	648	0.449	291	172	1.0	1.0	12.961	B
E - E Halton Road	406	102	1955	796	0.511	406	602	1.3	1.3	11.896	B

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1023	256	400	2521	0.406	1025	1541	1.8	1.2	4.302	A
B - Habrough Road	325	81	1300	1021	0.319	327	126	0.8	0.5	5.365	A
C - A160 W	1583	396	410	2467	0.642	1593	1217	4.8	2.2	4.991	A
D - Ulceby Road	237	59	1862	827	0.287	239	141	1.0	0.5	7.909	A
E - E Halton Road	332	83	1607	949	0.350	334	494	1.3	0.7	7.575	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	857	214	334	2561	0.335	858	1285	1.2	0.9	3.777	A
B - Habrough Road	273	68	1087	1108	0.246	273	105	0.5	0.3	4.454	A
C - A160 W	1326	331	342	2507	0.529	1329	1018	2.2	1.4	3.673	A
D - Ulceby Road	199	50	1554	964	0.206	200	118	0.5	0.3	6.067	A
E - E Halton Road	278	69	1341	1066	0.261	279	413	0.7	0.5	5.897	A

2032 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	7.20	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.20	A

Traffic Demand

Demand Set 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	2032 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1682	100.000
B - Habrough Road		ONE HOUR	✓	131	100.000
C - A160 W		ONE HOUR	✓	1199	100.000
D - Ulceby Road		ONE HOUR	✓	180	100.000
E - E Halton Road		ONE HOUR	✓	482	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	26	128	1201	114	213
	B - Habrough Road	20	0	43	20	48
	C - A160 W	795	70	0	113	221
	D - Ulceby Road	58	17	65	0	40
	E - E Halton Road	65	123	256	38	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	1	30	42	59
	B - Habrough Road	6	0	0	0	2
	C - A160 W	78	5	0	32	37
	D - Ulceby Road	52	7	38	0	50
	E - E Halton Road	42	1	13	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.78	8.86	4.5	A	1543	2315
B - Habrough Road	0.21	6.70	0.3	A	120	180
C - A160 W	0.55	5.27	1.9	A	1100	1650
D - Ulceby Road	0.20	6.54	0.4	A	165	248
E - E Halton Road	0.46	6.58	1.0	A	442	663

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1266	317	426	2506	0.505	1261	723	0.0	1.3	3.792	A
B - Habrough Road	99	25	1434	966	0.102	98	253	0.0	0.1	4.215	A
C - A160 W	903	226	359	2497	0.362	899	1173	0.0	0.9	3.546	A
D - Ulceby Road	136	34	1045	1190	0.114	135	214	0.0	0.2	4.802	A
E - E Halton Road	363	91	788	1310	0.277	361	391	0.0	0.4	4.272	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1512	378	511	2455	0.616	1509	865	1.3	2.1	4.993	A
B - Habrough Road	118	29	1716	850	0.139	118	303	0.1	0.2	4.994	A
C - A160 W	1078	269	430	2455	0.439	1077	1404	0.9	1.2	4.114	A
D - Ulceby Road	162	40	1251	1099	0.147	162	256	0.2	0.2	5.409	A
E - E Halton Road	433	108	944	1241	0.349	433	469	0.4	0.6	5.016	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1852	463	625	2386	0.776	1843	1059	2.1	4.4	8.572	A
B - Habrough Road	144	36	2097	694	0.208	144	371	0.2	0.3	6.648	A
C - A160 W	1320	330	525	2399	0.550	1317	1715	1.2	1.9	5.237	A
D - Ulceby Road	198	50	1530	975	0.203	198	313	0.2	0.4	6.520	A
E - E Halton Road	531	133	1155	1148	0.462	529	573	0.6	1.0	6.544	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1852	463	626	2385	0.776	1852	1061	4.4	4.5	8.858	A
B - Habrough Road	144	36	2106	690	0.209	144	372	0.3	0.3	6.701	A
C - A160 W	1320	330	527	2398	0.551	1320	1723	1.9	1.9	5.269	A
D - Ulceby Road	198	50	1534	973	0.204	198	314	0.4	0.4	6.542	A
E - E Halton Road	531	133	1157	1147	0.463	531	575	1.0	1.0	6.584	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1512	378	513	2454	0.616	1521	869	4.5	2.1	5.134	A
B - Habrough Road	118	29	1729	844	0.139	118	305	0.3	0.2	5.040	A
C - A160 W	1078	269	433	2453	0.439	1081	1415	1.9	1.2	4.144	A
D - Ulceby Road	162	40	1256	1096	0.148	162	257	0.4	0.2	5.433	A
E - E Halton Road	433	108	947	1240	0.350	435	471	1.0	0.6	5.054	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1266	317	429	2504	0.506	1269	727	2.1	1.4	3.849	A
B - Habrough Road	99	25	1444	962	0.103	99	255	0.2	0.1	4.241	A
C - A160 W	903	226	361	2495	0.362	904	1181	1.2	0.9	3.570	A
D - Ulceby Road	136	34	1051	1187	0.114	136	215	0.2	0.2	4.822	A
E - E Halton Road	363	91	793	1308	0.277	364	394	0.6	0.4	4.302	A

2032 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	17.46	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	17.46	C

Traffic Demand

Demand Set 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	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1278	100.000
B - Habrough Road		ONE HOUR	✓	368	100.000
C - A160 W		ONE HOUR	✓	2053	100.000
D - Ulceby Road		ONE HOUR	✓	264	100.000
E - E Halton Road		ONE HOUR	✓	398	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	3	34	1104	74	63
	B - Habrough Road	170	0	61	5	132
	C - A160 W	1558	44	0	64	387
	D - Ulceby Road	128	10	96	0	30
	E - E Halton Road	77	51	257	13	0

Vehicle Mix

HV %s

From	To					
	A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road	
A - A160 E	100	66	78	62	55	
B - Habrough Road	1	0	6	33	4	
C - A160 W	23	3	0	49	11	
D - Ulceby Road	35	13	22	0	32	
E - E Halton Road	39	7	26	22	0	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.57	6.05	2.3	A	1173	1759
B - Habrough Road	0.49	8.80	1.0	A	338	507
C - A160 W	0.94	25.47	15.0	D	1884	2826
D - Ulceby Road	0.58	21.46	1.7	C	242	363
E - E Halton Road	0.64	18.15	2.1	C	365	548

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	962	241	352	2550	0.377	958	1450	0.0	1.1	3.956	A
B - Habrough Road	277	69	1206	1059	0.262	276	104	0.0	0.4	4.733	A
C - A160 W	1546	386	345	2505	0.617	1538	1137	0.0	1.9	4.458	A
D - Ulceby Road	199	50	1766	870	0.228	197	117	0.0	0.4	6.872	A
E - E Halton Road	300	75	1504	994	0.301	297	458	0.0	0.5	6.454	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1149	287	422	2508	0.458	1147	1735	1.1	1.5	4.633	A
B - Habrough Road	331	83	1444	961	0.344	330	125	0.4	0.5	5.880	A
C - A160 W	1846	461	413	2465	0.749	1839	1362	1.9	3.5	6.872	A
D - Ulceby Road	237	59	2112	716	0.331	236	140	0.4	0.6	9.633	A
E - E Halton Road	358	89	1800	864	0.414	356	549	0.5	0.9	8.861	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1407	352	513	2454	0.573	1404	2099	1.5	2.3	5.994	A
B - Habrough Road	405	101	1765	830	0.488	403	151	0.5	1.0	8.677	A
C - A160 W	2260	565	505	2411	0.938	2222	1664	3.5	13.2	19.819	C
D - Ulceby Road	291	73	2556	520	0.559	287	170	0.6	1.6	19.616	C
E - E Halton Road	438	110	2178	698	0.628	434	665	0.9	2.0	16.793	C

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1407	352	518	2451	0.574	1407	2126	2.3	2.3	6.050	A
B - Habrough Road	405	101	1772	827	0.490	405	153	1.0	1.0	8.805	A
C - A160 W	2260	565	506	2410	0.938	2253	1671	13.2	15.0	25.465	D
D - Ulceby Road	291	73	2588	505	0.575	290	172	1.6	1.7	21.458	C
E - E Halton Road	438	110	2206	685	0.639	438	672	2.0	2.1	18.146	C

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1149	287	430	2504	0.459	1152	1778	2.3	1.5	4.684	A
B - Habrough Road	331	83	1455	957	0.346	333	127	1.0	0.6	5.966	A
C - A160 W	1846	461	415	2464	0.749	1891	1372	15.0	3.7	8.155	A
D - Ulceby Road	237	59	2164	693	0.342	241	142	1.7	0.7	10.342	B
E - E Halton Road	358	89	1846	844	0.424	363	560	2.1	0.9	9.462	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	962	241	356	2548	0.378	964	1464	1.5	1.1	3.993	A
B - Habrough Road	277	69	1215	1055	0.263	278	105	0.6	0.4	4.783	A
C - A160 W	1546	386	347	2504	0.617	1553	1146	3.7	2.0	4.600	A
D - Ulceby Road	199	50	1782	863	0.230	200	118	0.7	0.4	7.001	A
E - E Halton Road	300	75	1519	988	0.303	301	463	0.9	0.6	6.586	A

2032 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	15.26	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	15.26	C

Traffic Demand

Demand Set 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	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1947	100.000
B - Habrough Road		ONE HOUR	✓	133	100.000
C - A160 W		ONE HOUR	✓	1420	100.000
D - Ulceby Road		ONE HOUR	✓	180	100.000
E - E Halton Road		ONE HOUR	✓	578	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	26	133	1461	114	213
	B - Habrough Road	22	0	43	20	48
	C - A160 W	984	70	0	113	253
	D - Ulceby Road	58	17	65	0	40
	E - E Halton Road	65	123	352	38	0

Vehicle Mix

HV %s

		To				
From		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
	A - A160 E	100	1	31	42	59
	B - Habrough Road	5	0	0	0	2
	C - A160 W	75	5	0	32	30
	D - Ulceby Road	52	7	38	0	50
	E - E Halton Road	42	1	9	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.92	24.29	13.6	C	1787	2680
B - Habrough Road	0.28	9.50	0.4	A	122	183
C - A160 W	0.65	6.74	2.9	A	1303	1955
D - Ulceby Road	0.23	7.61	0.4	A	165	248
E - E Halton Road	0.60	9.49	1.7	A	530	796

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1466	366	498	2463	0.595	1458	866	0.0	1.9	4.698	A
B - Habrough Road	100	25	1699	857	0.117	100	257	0.0	0.1	4.823	A
C - A160 W	1069	267	360	2496	0.428	1064	1439	0.0	1.2	3.915	A
D - Ulceby Road	136	34	1211	1116	0.121	135	214	0.0	0.2	5.159	A
E - E Halton Road	435	109	931	1247	0.349	433	415	0.0	0.6	4.866	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1750	438	597	2403	0.728	1744	1037	1.9	3.4	7.145	A
B - Habrough Road	120	30	2033	720	0.166	119	308	0.1	0.2	6.083	A
C - A160 W	1277	319	431	2454	0.520	1274	1721	1.2	1.7	4.756	A
D - Ulceby Road	162	40	1450	1010	0.160	162	256	0.2	0.3	5.973	A
E - E Halton Road	520	130	1115	1166	0.446	518	497	0.6	0.9	6.124	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	2144	536	729	2324	0.922	2109	1267	3.4	12.2	19.560	C
B - Habrough Road	146	37	2463	543	0.270	146	374	0.2	0.4	9.179	A
C - A160 W	1563	391	523	2400	0.651	1559	2087	1.7	2.9	6.643	A
D - Ulceby Road	198	50	1770	868	0.228	198	311	0.3	0.4	7.555	A
E - E Halton Road	636	159	1363	1057	0.602	633	605	0.9	1.6	9.321	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	2144	536	732	2322	0.923	2138	1271	12.2	13.6	24.293	C
B - Habrough Road	146	37	2493	531	0.276	146	377	0.4	0.4	9.496	A
C - A160 W	1563	391	529	2397	0.652	1563	2111	2.9	2.9	6.742	A
D - Ulceby Road	198	50	1778	864	0.229	198	313	0.4	0.4	7.608	A
E - E Halton Road	636	159	1367	1055	0.603	636	609	1.6	1.7	9.490	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1750	438	601	2401	0.729	1790	1043	13.6	3.7	8.267	A
B - Habrough Road	120	30	2079	701	0.171	120	312	0.4	0.2	6.299	A
C - A160 W	1277	319	440	2449	0.521	1281	1759	2.9	1.7	4.836	A
D - Ulceby Road	162	40	1462	1005	0.161	162	259	0.4	0.3	6.023	A
E - E Halton Road	520	130	1121	1163	0.447	523	504	1.7	0.9	6.233	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1466	366	502	2460	0.596	1473	871	3.7	2.0	4.845	A
B - Habrough Road	100	25	1715	850	0.118	100	259	0.2	0.1	4.877	A
C - A160 W	1069	267	364	2494	0.429	1071	1452	1.7	1.2	3.957	A
D - Ulceby Road	136	34	1220	1112	0.122	136	215	0.3	0.2	5.193	A
E - E Halton Road	435	109	937	1244	0.350	436	418	0.9	0.6	4.926	A

2032 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	19.78	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	19.78	C

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1297	100.000
B - Habrough Road		ONE HOUR	✓	368	100.000
C - A160 W		ONE HOUR	✓	2082	100.000
D - Ulceby Road		ONE HOUR	✓	264	100.000
E - E Halton Road		ONE HOUR	✓	398	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	3	36	1121	74	63
	B - Habrough Road	170	0	61	5	132
	C - A160 W	1587	44	0	64	387
	D - Ulceby Road	128	10	96	0	30
	E - E Halton Road	77	51	257	13	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	60	78	62	55
	B - Habrough Road	1	0	6	33	4
	C - A160 W	24	3	0	49	11
	D - Ulceby Road	35	13	22	0	32
	E - E Halton Road	39	7	26	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.58	6.17	2.4	A	1190	1785
B - Habrough Road	0.49	8.97	1.0	A	338	507
C - A160 W	0.95	29.92	17.9	D	1910	2866
D - Ulceby Road	0.59	22.77	1.8	C	242	363
E - E Halton Road	0.65	19.11	2.3	C	365	548

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	976	244	352	2550	0.383	972	1471	0.0	1.1	3.987	A
B - Habrough Road	277	69	1219	1054	0.263	276	106	0.0	0.4	4.764	A
C - A160 W	1567	392	345	2505	0.626	1559	1150	0.0	2.0	4.585	A
D - Ulceby Road	199	50	1787	861	0.231	197	117	0.0	0.4	6.971	A
E - E Halton Road	300	75	1526	985	0.304	297	458	0.0	0.5	6.544	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1166	291	422	2508	0.465	1164	1760	1.1	1.5	4.688	A
B - Habrough Road	331	83	1460	955	0.346	330	126	0.4	0.5	5.939	A
C - A160 W	1872	468	413	2465	0.759	1865	1377	2.0	3.7	7.202	A
D - Ulceby Road	237	59	2138	705	0.337	236	140	0.4	0.6	9.864	A
E - E Halton Road	358	89	1826	853	0.420	356	548	0.5	0.9	9.061	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1428	357	512	2454	0.582	1424	2125	1.5	2.4	6.106	A
B - Habrough Road	405	101	1783	822	0.493	403	153	0.5	1.0	8.830	A
C - A160 W	2292	573	504	2411	0.951	2246	1682	3.7	15.2	22.105	C
D - Ulceby Road	291	73	2581	509	0.572	287	170	0.6	1.6	20.533	C
E - E Halton Road	438	110	2203	686	0.638	433	664	0.9	2.1	17.502	C

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1428	357	518	2451	0.583	1428	2155	2.4	2.4	6.167	A
B - Habrough Road	405	101	1791	819	0.495	405	155	1.0	1.0	8.967	A
C - A160 W	2292	573	506	2410	0.951	2282	1689	15.2	17.9	29.919	D
D - Ulceby Road	291	73	2617	493	0.590	290	171	1.6	1.8	22.770	C
E - E Halton Road	438	110	2235	672	0.652	438	672	2.1	2.3	19.115	C

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1166	291	430	2503	0.466	1170	1813	2.4	1.5	4.742	A
B - Habrough Road	331	83	1471	950	0.348	333	129	1.0	0.6	6.032	A
C - A160 W	1872	468	416	2463	0.760	1927	1388	17.9	4.0	8.961	A
D - Ulceby Road	237	59	2201	677	0.350	242	142	1.8	0.7	10.741	B
E - E Halton Road	358	89	1880	829	0.432	363	562	2.3	1.0	9.787	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	976	244	357	2548	0.383	978	1486	1.5	1.1	4.026	A
B - Habrough Road	277	69	1228	1050	0.264	278	107	0.6	0.4	4.815	A
C - A160 W	1567	392	347	2504	0.626	1575	1159	4.0	2.1	4.746	A
D - Ulceby Road	199	50	1804	853	0.233	200	118	0.7	0.4	7.110	A
E - E Halton Road	300	75	1542	978	0.306	301	463	1.0	0.6	6.685	A

2032 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	16.89	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	16.89	C

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1971	100.000
B - Habrough Road		ONE HOUR	✓	133	100.000
C - A160 W		ONE HOUR	✓	1459	100.000
D - Ulceby Road		ONE HOUR	✓	180	100.000
E - E Halton Road		ONE HOUR	✓	578	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	26	134	1484	114	213
	B - Habrough Road	22	0	43	20	48
	C - A160 W	1023	70	0	113	253
	D - Ulceby Road	58	17	65	0	40
	E - E Halton Road	65	123	352	38	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	1	32	42	59
	B - Habrough Road	5	0	0	0	2
	C - A160 W	75	5	0	32	30
	D - Ulceby Road	52	7	38	0	50
	E - E Halton Road	42	1	9	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.93	27.46	15.5	D	1809	2713
B - Habrough Road	0.28	9.74	0.4	A	122	183
C - A160 W	0.67	7.12	3.1	A	1339	2008
D - Ulceby Road	0.23	7.83	0.4	A	165	248
E - E Halton Road	0.61	9.94	1.7	A	530	796

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1484	371	498	2463	0.603	1476	895	0.0	2.0	4.807	A
B - Habrough Road	100	25	1716	850	0.118	100	258	0.0	0.1	4.868	A
C - A160 W	1098	275	360	2496	0.440	1094	1456	0.0	1.2	4.007	A
D - Ulceby Road	136	34	1240	1103	0.123	135	213	0.0	0.2	5.231	A
E - E Halton Road	435	109	960	1234	0.353	433	415	0.0	0.6	4.943	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1772	443	597	2403	0.737	1765	1071	2.0	3.6	7.410	A
B - Habrough Road	120	30	2053	711	0.168	119	308	0.1	0.2	6.168	A
C - A160 W	1312	328	431	2454	0.534	1309	1742	1.2	1.8	4.914	A
D - Ulceby Road	162	40	1485	995	0.163	162	256	0.2	0.3	6.084	A
E - E Halton Road	520	130	1150	1150	0.452	518	497	0.6	0.9	6.273	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	2170	543	729	2324	0.934	2130	1310	3.6	13.6	21.308	C
B - Habrough Road	146	37	2484	535	0.274	146	375	0.2	0.4	9.375	A
C - A160 W	1606	402	522	2401	0.669	1601	2108	1.8	3.1	7.005	A
D - Ulceby Road	198	50	1812	849	0.233	198	311	0.3	0.4	7.770	A
E - E Halton Road	636	159	1405	1038	0.613	633	604	0.9	1.7	9.740	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	2170	543	732	2322	0.935	2162	1314	13.6	15.5	27.458	D
B - Habrough Road	146	37	2516	522	0.281	146	378	0.4	0.4	9.737	A
C - A160 W	1606	402	528	2397	0.670	1606	2135	3.1	3.1	7.124	A
D - Ulceby Road	198	50	1821	845	0.234	198	313	0.4	0.4	7.832	A
E - E Halton Road	636	159	1410	1036	0.614	636	609	1.7	1.7	9.937	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1772	443	601	2401	0.738	1819	1078	15.5	3.9	8.835	A
B - Habrough Road	120	30	2106	690	0.173	120	313	0.4	0.2	6.424	A
C - A160 W	1312	328	441	2448	0.536	1317	1785	3.1	1.8	5.006	A
D - Ulceby Road	162	40	1499	988	0.164	162	260	0.4	0.3	6.143	A
E - E Halton Road	520	130	1157	1147	0.453	523	504	1.7	0.9	6.395	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1484	371	502	2460	0.603	1491	901	3.9	2.0	4.971	A
B - Habrough Road	100	25	1733	843	0.119	100	260	0.2	0.1	4.926	A
C - A160 W	1098	275	364	2494	0.440	1101	1470	1.8	1.2	4.053	A
D - Ulceby Road	136	34	1249	1099	0.123	136	215	0.3	0.2	5.264	A
E - E Halton Road	435	109	967	1231	0.353	436	418	0.9	0.6	5.008	A

Appendix TN2 N

A160/ Ulceby Road/ Habrough Road/ East Halton Road Stena AM Junction
Assessment Results

<h1>Junctions 10</h1>
<h2>ARCADY 10 - Roundabout Module</h2>
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Filename: A160-Habrough Road-Ulceby Road-E Halton Road.j10
Path: P:\23000's\23325\Junction Assessment\1 Base Assessment - Stena AM
Report generation date: 19/10/2023 10:43:34

- »2021 Base, AM
- »2021 Base, PM
- »2025 Base, AM
- »2025 Base, PM
- »2025 Base + Committed, AM
- »2025 Base + Committed, PM
- »2025 Base + Committed + Development, AM
- »2025 Base + Committed + Development, PM
- »2032 Base, AM
- »2032 Base, PM
- »2032 Base + Committed, AM
- »2032 Base + Committed, PM
- »2032 Base + Committed + Development, AM
- »2032 Base + Committed + Development, PM

Summary of junction performance

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Base						
A - A160 E	1.5	4.67	0.45	2.9	6.25	0.69
B - Habrough Road	0.6	6.09	0.37	0.2	5.66	0.17
C - A160 W	2.9	6.13	0.71	1.5	4.58	0.49
D - Ulceby Road	0.7	9.49	0.35	0.3	5.88	0.17
E - E Halton Road	0.9	8.96	0.41	0.7	5.64	0.40
2025 Base						
A - A160 E	1.6	4.89	0.47	3.4	7.08	0.72
B - Habrough Road	0.7	6.51	0.40	0.2	6.04	0.18
C - A160 W	3.5	7.01	0.75	1.7	4.83	0.51
D - Ulceby Road	0.8	10.62	0.39	0.3	6.13	0.18
E - E Halton Road	1.0	9.91	0.45	0.8	5.97	0.42
2025 Base + Committed						
A - A160 E	2.0	5.55	0.54	8.1	14.88	0.87
B - Habrough Road	0.8	7.62	0.44	0.3	8.24	0.24
C - A160 W	8.4	14.75	0.88	2.5	6.04	0.61
D - Ulceby Road	1.2	15.88	0.48	0.4	7.05	0.21
E - E Halton Road	1.6	13.92	0.56	1.4	8.23	0.56
2025 Base + Committed + Development						
A - A160 E	2.1	5.62	0.55	8.9	16.24	0.88
B - Habrough Road	0.8	7.71	0.44	0.3	8.44	0.24
C - A160 W	8.7	15.18	0.88	2.7	6.35	0.63
D - Ulceby Road	1.2	16.09	0.49	0.4	7.24	0.21
E - E Halton Road	1.6	14.09	0.56	1.4	8.56	0.57
2032 Base						
A - A160 E	1.8	5.28	0.51	4.5	8.86	0.78
B - Habrough Road	0.8	7.37	0.44	0.3	6.70	0.21
C - A160 W	4.8	9.04	0.80	1.9	5.27	0.55
D - Ulceby Road	1.0	12.96	0.45	0.4	6.54	0.20
E - E Halton Road	1.3	11.90	0.51	1.0	6.58	0.46
2032 Base + Committed						
A - A160 E	2.3	6.05	0.57	13.6	24.29	0.92
B - Habrough Road	1.0	8.80	0.49	0.4	9.50	0.28
C - A160 W	15.0	25.47	0.94	2.9	6.74	0.65
D - Ulceby Road	1.7	21.46	0.58	0.4	7.61	0.23
E - E Halton Road	2.1	18.15	0.64	1.7	9.49	0.60
2032 Base + Committed + Development						
A - A160 E	2.4	6.14	0.58	15.5	27.46	0.93
B - Habrough Road	1.0	8.93	0.49	0.4	9.74	0.28
C - A160 W	15.7	26.56	0.94	3.1	7.12	0.67
D - Ulceby Road	1.7	21.81	0.58	0.4	7.83	0.23
E - E Halton Road	2.2	18.41	0.64	1.7	9.94	0.61

Values shown are the highest values encountered over all time segments. Delay is the maximum value of Av. delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	18/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\Arcady
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

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	2021 Base	AM	ONE HOUR	06:45	08:15	15	✓
D2	2021 Base	PM	ONE HOUR	15:45	17:15	15	✓
D3	2025 Base	AM	ONE HOUR	06:45	08:15	15	✓
D4	2025 Base	PM	ONE HOUR	15:45	17:15	15	✓
D5	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D6	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D7	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D8	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓
D9	2032 Base	AM	ONE HOUR	06:45	08:15	15	✓
D10	2032 Base	PM	ONE HOUR	15:45	17:15	15	✓
D11	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D12	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D13	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D14	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2021 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	6.20	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.20	A

Arms

Arms

Arm	Name	Description	No give-way line
A	A160 E		
B	Habrough Road		
C	A160 W		
D	Ulceby Road		
E	E Halton Road		

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
A - A160 E	8.00	9.20	20.0	50.0	100.0	35.0		
B - Habrough Road	3.80	7.00	13.7	15.0	100.0	51.0		
C - A160 W	7.80	9.40	15.0	36.0	100.0	38.0		
D - Ulceby Road	3.90	6.90	10.2	33.0	100.0	35.0		
E - E Halton Road	3.60	7.50	12.5	27.0	100.0	38.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A160 E	0.601	2762
B - Habrough Road	0.410	1554
C - A160 W	0.589	2708
D - Ulceby Road	0.444	1653
E - E Halton Road	0.440	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	2021 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1021	100.000
B - Habrough Road		ONE HOUR	✓	326	100.000
C - A160 W		ONE HOUR	✓	1581	100.000
D - Ulceby Road		ONE HOUR	✓	238	100.000
E - E Halton Road		ONE HOUR	✓	332	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	2	30	866	67	56
	B - Habrough Road	148	0	55	4	119
	C - A160 W	1196	39	0	57	289
	D - Ulceby Road	115	9	87	0	27
	E - E Halton Road	69	46	205	12	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	69	82	62	55
	B - Habrough Road	1	0	6	33	4
	C - A160 W	21	3	0	49	13
	D - Ulceby Road	35	13	22	0	32
	E - E Halton Road	39	7	32	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.45	4.67	1.5	A	937	1405
B - Habrough Road	0.37	6.09	0.6	A	299	449
C - A160 W	0.71	6.13	2.9	A	1451	2176
D - Ulceby Road	0.35	9.49	0.7	A	218	328
E - E Halton Road	0.41	8.96	0.9	A	305	457

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	769	192	298	2583	0.298	766	1147	0.0	0.8	3.529	A
B - Habrough Road	245	61	971	1156	0.212	244	93	0.0	0.3	4.071	A
C - A160 W	1190	298	306	2528	0.471	1186	909	0.0	1.1	3.212	A
D - Ulceby Road	179	45	1387	1038	0.173	178	105	0.0	0.3	5.381	A
E - E Halton Road	250	62	1197	1130	0.221	248	368	0.0	0.4	5.253	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	918	229	357	2547	0.360	917	1373	0.8	1.0	3.938	A
B - Habrough Road	293	73	1163	1077	0.272	293	111	0.3	0.4	4.735	A
C - A160 W	1421	355	366	2493	0.570	1419	1089	1.1	1.6	4.009	A
D - Ulceby Road	214	53	1660	917	0.233	213	126	0.3	0.4	6.582	A
E - E Halton Road	298	75	1433	1026	0.291	298	441	0.4	0.5	6.363	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1124	281	436	2500	0.450	1122	1679	1.0	1.4	4.659	A
B - Habrough Road	359	90	1423	970	0.370	358	136	0.4	0.6	6.060	A
C - A160 W	1741	435	448	2444	0.712	1735	1333	1.6	2.9	6.035	A
D - Ulceby Road	262	66	2030	753	0.348	261	154	0.4	0.7	9.388	A
E - E Halton Road	366	91	1752	885	0.413	364	539	0.5	0.9	8.871	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1124	281	438	2499	0.450	1124	1684	1.4	1.5	4.674	A
B - Habrough Road	359	90	1426	969	0.370	359	137	0.6	0.6	6.089	A
C - A160 W	1741	435	449	2444	0.712	1741	1335	2.9	2.9	6.129	A
D - Ulceby Road	262	66	2036	750	0.349	262	154	0.7	0.7	9.487	A
E - E Halton Road	366	91	1757	883	0.414	365	541	0.9	0.9	8.959	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	918	229	360	2546	0.361	920	1381	1.5	1.0	3.955	A
B - Habrough Road	293	73	1167	1075	0.273	294	112	0.6	0.4	4.761	A
C - A160 W	1421	355	368	2492	0.570	1427	1093	2.9	1.6	4.067	A
D - Ulceby Road	214	53	1668	913	0.234	215	126	0.7	0.4	6.648	A
E - E Halton Road	298	75	1440	1022	0.292	300	443	0.9	0.5	6.429	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	769	192	300	2581	0.298	770	1154	1.0	0.8	3.550	A
B - Habrough Road	245	61	977	1153	0.213	246	94	0.4	0.3	4.097	A
C - A160 W	1190	298	308	2527	0.471	1192	915	1.6	1.1	3.236	A
D - Ulceby Road	179	45	1394	1035	0.173	180	106	0.4	0.3	5.421	A
E - E Halton Road	250	62	1204	1127	0.222	251	370	0.5	0.4	5.298	A

2021 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	5.59	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.59	A

Traffic Demand

Demand Set 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	2021 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1513	100.000
B - Habrough Road		ONE HOUR	✓	118	100.000
C - A160 W		ONE HOUR	✓	1080	100.000
D - Ulceby Road		ONE HOUR	✓	162	100.000
E - E Halton Road		ONE HOUR	✓	434	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	23	115	1081	102	192
	B - Habrough Road	18	0	39	18	43
	C - A160 W	716	63	0	102	199
	D - Ulceby Road	52	15	59	0	36
	E - E Halton Road	59	110	231	34	0

Vehicle Mix

HV %s

		To				
From		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
	A - A160 E	100	1	30	42	59
	B - Habrough Road	6	0	0	0	2
	C - A160 W	78	5	0	32	37
	D - Ulceby Road	52	7	38	0	50
	E - E Halton Road	42	1	13	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.69	6.25	2.9	A	1388	2083
B - Habrough Road	0.17	5.66	0.2	A	108	162
C - A160 W	0.49	4.58	1.5	A	991	1487
D - Ulceby Road	0.17	5.88	0.3	A	149	223
E - E Halton Road	0.40	5.64	0.7	A	398	597

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1139	285	384	2531	0.450	1135	651	0.0	1.1	3.384	A
B - Habrough Road	89	22	1291	1024	0.087	88	227	0.0	0.1	3.907	A
C - A160 W	813	203	322	2518	0.323	810	1057	0.0	0.7	3.318	A
D - Ulceby Road	122	30	941	1236	0.099	121	192	0.0	0.2	4.548	A
E - E Halton Road	327	82	709	1344	0.243	325	352	0.0	0.4	3.979	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1360	340	460	2486	0.547	1358	779	1.1	1.6	4.195	A
B - Habrough Road	106	27	1546	920	0.115	106	272	0.1	0.1	4.494	A
C - A160 W	971	243	386	2481	0.391	970	1266	0.7	1.0	3.756	A
D - Ulceby Road	146	36	1126	1154	0.126	145	230	0.2	0.2	5.028	A
E - E Halton Road	390	98	849	1283	0.304	390	422	0.4	0.5	4.544	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1666	416	563	2424	0.687	1661	954	1.6	2.8	6.170	A
B - Habrough Road	130	32	1891	778	0.167	130	333	0.1	0.2	5.636	A
C - A160 W	1189	297	472	2430	0.489	1187	1548	1.0	1.5	4.560	A
D - Ulceby Road	178	45	1378	1042	0.171	178	281	0.2	0.3	5.867	A
E - E Halton Road	478	119	1040	1199	0.399	477	516	0.5	0.7	5.616	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1666	416	564	2423	0.687	1666	956	2.8	2.9	6.253	A
B - Habrough Road	130	32	1896	776	0.167	130	334	0.2	0.2	5.659	A
C - A160 W	1189	297	473	2429	0.489	1189	1552	1.5	1.5	4.577	A
D - Ulceby Road	178	45	1381	1041	0.171	178	282	0.3	0.3	5.880	A
E - E Halton Road	478	119	1042	1198	0.399	478	517	0.7	0.7	5.638	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1360	340	461	2485	0.547	1365	782	2.9	1.6	4.251	A
B - Habrough Road	106	27	1553	917	0.116	106	273	0.2	0.1	4.515	A
C - A160 W	971	243	388	2480	0.392	973	1272	1.5	1.0	3.771	A
D - Ulceby Road	146	36	1130	1152	0.126	146	231	0.3	0.2	5.044	A
E - E Halton Road	390	98	852	1281	0.304	391	424	0.7	0.5	4.566	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1139	285	386	2530	0.450	1141	654	1.6	1.1	3.416	A
B - Habrough Road	89	22	1299	1021	0.087	89	228	0.1	0.1	3.925	A
C - A160 W	813	203	324	2517	0.323	814	1063	1.0	0.8	3.335	A
D - Ulceby Road	122	30	945	1234	0.099	122	193	0.2	0.2	4.562	A
E - E Halton Road	327	82	713	1343	0.243	327	354	0.5	0.4	4.001	A

2025 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	6.87	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.87	A

Traffic Demand

Demand Set 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	2025 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1067	100.000
B - Habrough Road		ONE HOUR	✓	339	100.000
C - A160 W		ONE HOUR	✓	1652	100.000
D - Ulceby Road		ONE HOUR	✓	249	100.000
E - E Halton Road		ONE HOUR	✓	346	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	2	32	904	70	59
	B - Habrough Road	154	0	57	4	124
	C - A160 W	1249	41	0	60	302
	D - Ulceby Road	121	10	90	0	28
	E - E Halton Road	72	48	214	12	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	69	82	62	55
	B - Habrough Road	1	0	6	33	4
	C - A160 W	21	3	0	49	13
	D - Ulceby Road	35	13	22	0	32
	E - E Halton Road	39	7	32	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.47	4.89	1.6	A	979	1469
B - Habrough Road	0.40	6.51	0.7	A	311	467
C - A160 W	0.75	7.01	3.5	A	1516	2274
D - Ulceby Road	0.39	10.62	0.8	B	228	343
E - E Halton Road	0.45	9.91	1.0	A	317	476

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	803	201	311	2575	0.312	800	1198	0.0	0.8	3.613	A
B - Habrough Road	255	64	1013	1139	0.224	254	98	0.0	0.3	4.195	A
C - A160 W	1244	311	319	2521	0.493	1239	948	0.0	1.2	3.351	A
D - Ulceby Road	187	47	1448	1011	0.185	186	109	0.0	0.3	5.611	A
E - E Halton Road	260	65	1250	1106	0.235	259	385	0.0	0.4	5.462	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	959	240	372	2538	0.378	958	1434	0.8	1.1	4.063	A
B - Habrough Road	305	76	1213	1056	0.288	304	118	0.3	0.4	4.936	A
C - A160 W	1485	371	382	2484	0.598	1483	1136	1.2	1.8	4.297	A
D - Ulceby Road	224	56	1733	884	0.253	223	131	0.3	0.4	7.001	A
E - E Halton Road	311	78	1496	998	0.312	310	460	0.4	0.6	6.737	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1175	294	455	2489	0.472	1173	1753	1.1	1.6	4.876	A
B - Habrough Road	373	93	1484	945	0.395	372	144	0.4	0.7	6.474	A
C - A160 W	1819	455	467	2433	0.748	1812	1389	1.8	3.4	6.867	A
D - Ulceby Road	274	69	2119	714	0.384	273	160	0.4	0.8	10.477	B
E - E Halton Road	381	95	1828	851	0.447	379	563	0.6	1.0	9.781	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1175	294	457	2487	0.472	1175	1759	1.6	1.6	4.894	A
B - Habrough Road	373	93	1487	944	0.395	373	144	0.7	0.7	6.511	A
C - A160 W	1819	455	468	2433	0.748	1819	1393	3.4	3.5	7.015	A
D - Ulceby Road	274	69	2126	710	0.386	274	161	0.8	0.8	10.620	B
E - E Halton Road	381	95	1835	849	0.449	381	565	1.0	1.0	9.913	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	959	240	375	2536	0.378	961	1443	1.6	1.1	4.084	A
B - Habrough Road	305	76	1218	1054	0.289	306	118	0.7	0.4	4.969	A
C - A160 W	1485	371	383	2483	0.598	1492	1141	3.5	1.8	4.380	A
D - Ulceby Road	224	56	1743	880	0.254	225	132	0.8	0.4	7.094	A
E - E Halton Road	311	78	1506	994	0.313	313	463	1.0	0.6	6.827	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	803	201	313	2574	0.312	804	1206	1.1	0.8	3.632	A
B - Habrough Road	255	64	1019	1136	0.225	256	99	0.4	0.3	4.224	A
C - A160 W	1244	311	321	2519	0.494	1246	954	1.8	1.2	3.391	A
D - Ulceby Road	187	47	1457	1007	0.186	188	110	0.4	0.3	5.660	A
E - E Halton Road	260	65	1258	1103	0.236	261	387	0.6	0.4	5.514	A

2025 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	6.12	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.12	A

Traffic Demand

Demand Set 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	2025 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1580	100.000
B - Habrough Road		ONE HOUR	✓	124	100.000
C - A160 W		ONE HOUR	✓	1127	100.000
D - Ulceby Road		ONE HOUR	✓	169	100.000
E - E Halton Road		ONE HOUR	✓	453	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	24	120	1128	107	201
	B - Habrough Road	19	0	41	19	45
	C - A160 W	747	66	0	106	208
	D - Ulceby Road	54	16	61	0	38
	E - E Halton Road	61	115	241	36	0

Vehicle Mix

HV %s

		To				
From		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
	A - A160 E	100	1	30	42	59
	B - Habrough Road	6	0	0	0	2
	C - A160 W	78	5	0	32	37
	D - Ulceby Road	52	8	38	0	50
	E - E Halton Road	42	1	13	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.72	7.08	3.4	A	1450	2175
B - Habrough Road	0.18	6.04	0.2	A	114	171
C - A160 W	0.51	4.83	1.7	A	1034	1551
D - Ulceby Road	0.18	6.13	0.3	A	155	233
E - E Halton Road	0.42	5.97	0.8	A	416	624

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1190	297	401	2521	0.472	1185	679	0.0	1.2	3.536	A
B - Habrough Road	93	23	1348	1001	0.093	93	238	0.0	0.1	4.026	A
C - A160 W	848	212	338	2509	0.338	845	1103	0.0	0.8	3.407	A
D - Ulceby Road	127	32	982	1217	0.105	127	201	0.0	0.2	4.649	A
E - E Halton Road	341	85	740	1331	0.256	339	369	0.0	0.4	4.090	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1420	355	480	2473	0.574	1418	813	1.2	1.8	4.481	A
B - Habrough Road	111	28	1614	892	0.125	111	285	0.1	0.1	4.684	A
C - A160 W	1013	253	405	2470	0.410	1012	1320	0.8	1.1	3.891	A
D - Ulceby Road	152	38	1176	1131	0.134	152	241	0.2	0.2	5.178	A
E - E Halton Road	407	102	886	1266	0.322	407	442	0.4	0.5	4.719	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1740	435	588	2409	0.722	1733	995	1.8	3.3	6.951	A
B - Habrough Road	137	34	1973	745	0.183	136	348	0.1	0.2	6.010	A
C - A160 W	1241	310	495	2417	0.513	1239	1614	1.1	1.6	4.810	A
D - Ulceby Road	186	47	1439	1015	0.183	186	294	0.2	0.3	6.118	A
E - E Halton Road	499	125	1085	1179	0.423	498	540	0.5	0.8	5.948	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1740	435	589	2408	0.722	1739	996	3.3	3.4	7.084	A
B - Habrough Road	137	34	1979	742	0.184	137	349	0.2	0.2	6.041	A
C - A160 W	1241	310	497	2416	0.514	1241	1619	1.6	1.7	4.831	A
D - Ulceby Road	186	47	1442	1013	0.184	186	295	0.3	0.3	6.133	A
E - E Halton Road	499	125	1087	1178	0.423	499	542	0.8	0.8	5.975	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1420	355	482	2472	0.575	1427	815	3.4	1.8	4.561	A
B - Habrough Road	111	28	1623	888	0.126	112	286	0.2	0.1	4.713	A
C - A160 W	1013	253	407	2468	0.410	1015	1328	1.7	1.1	3.914	A
D - Ulceby Road	152	38	1181	1129	0.135	152	242	0.3	0.2	5.197	A
E - E Halton Road	407	102	889	1265	0.322	408	444	0.8	0.5	4.744	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1190	297	403	2519	0.472	1192	682	1.8	1.2	3.575	A
B - Habrough Road	93	23	1356	998	0.094	94	239	0.1	0.1	4.046	A
C - A160 W	848	212	340	2508	0.338	850	1110	1.1	0.8	3.425	A
D - Ulceby Road	127	32	988	1215	0.105	127	202	0.2	0.2	4.668	A
E - E Halton Road	341	85	744	1329	0.257	342	371	0.5	0.4	4.114	A

2025 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	11.45	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.45	B

Traffic Demand

Demand Set 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	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1208	100.000
B - Habrough Road		ONE HOUR	✓	345	100.000
C - A160 W		ONE HOUR	✓	1944	100.000
D - Ulceby Road		ONE HOUR	✓	249	100.000
E - E Halton Road		ONE HOUR	✓	375	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	2	32	1045	70	59
	B - Habrough Road	160	0	57	4	124
	C - A160 W	1476	41	0	60	367
	D - Ulceby Road	121	10	90	0	28
	E - E Halton Road	72	48	243	12	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	66	78	62	55
	B - Habrough Road	1	0	6	33	4
	C - A160 W	23	3	0	49	11
	D - Ulceby Road	35	13	22	0	32
	E - E Halton Road	39	7	26	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.54	5.55	2.0	A	1108	1663
B - Habrough Road	0.44	7.62	0.8	A	317	475
C - A160 W	0.88	14.75	8.4	B	1784	2676
D - Ulceby Road	0.48	15.88	1.2	C	228	343
E - E Halton Road	0.56	13.92	1.6	B	344	516

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	909	227	332	2562	0.355	906	1372	0.0	1.0	3.804	A
B - Habrough Road	260	65	1140	1086	0.239	258	98	0.0	0.3	4.479	A
C - A160 W	1464	366	323	2518	0.581	1457	1075	0.0	1.7	4.070	A
D - Ulceby Road	187	47	1670	912	0.205	186	109	0.0	0.3	6.369	A
E - E Halton Road	282	71	1423	1030	0.274	280	433	0.0	0.5	6.003	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1086	271	398	2523	0.430	1085	1642	1.0	1.3	4.386	A
B - Habrough Road	310	78	1365	994	0.312	310	117	0.3	0.5	5.421	A
C - A160 W	1748	437	387	2480	0.705	1743	1288	1.7	2.8	5.854	A
D - Ulceby Road	224	56	1999	767	0.292	223	131	0.3	0.5	8.512	A
E - E Halton Road	337	84	1703	907	0.372	336	518	0.5	0.7	7.890	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1330	333	485	2470	0.538	1327	1998	1.3	2.0	5.510	A
B - Habrough Road	380	95	1669	869	0.437	379	143	0.5	0.8	7.548	A
C - A160 W	2140	535	473	2430	0.881	2120	1574	2.8	8.0	13.229	B
D - Ulceby Road	274	69	2433	574	0.478	272	160	0.5	1.1	15.201	C
E - E Halton Road	413	103	2073	744	0.555	410	632	0.7	1.5	13.379	B

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1330	333	489	2468	0.539	1330	2014	2.0	2.0	5.547	A
B - Habrough Road	380	95	1674	867	0.438	380	144	0.8	0.8	7.622	A
C - A160 W	2140	535	474	2429	0.881	2139	1580	8.0	8.4	14.746	B
D - Ulceby Road	274	69	2452	565	0.485	274	161	1.1	1.2	15.876	C
E - E Halton Road	413	103	2090	736	0.561	413	636	1.5	1.6	13.923	B

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1086	271	403	2520	0.431	1089	1665	2.0	1.3	4.423	A
B - Habrough Road	310	78	1373	991	0.313	311	119	0.8	0.5	5.479	A
C - A160 W	1748	437	389	2479	0.705	1769	1296	8.4	2.9	6.304	A
D - Ulceby Road	224	56	2026	755	0.297	226	132	1.2	0.6	8.815	A
E - E Halton Road	337	84	1728	896	0.376	340	525	1.6	0.8	8.164	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	909	227	336	2560	0.355	911	1383	1.3	1.0	3.831	A
B - Habrough Road	260	65	1148	1083	0.240	260	99	0.5	0.3	4.516	A
C - A160 W	1464	366	325	2517	0.582	1469	1083	2.9	1.7	4.164	A
D - Ulceby Road	187	47	1684	906	0.207	188	110	0.6	0.3	6.460	A
E - E Halton Road	282	71	1435	1025	0.276	283	436	0.8	0.5	6.095	A

2025 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	10.49	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.49	B

Traffic Demand

Demand Set 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	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1845	100.000
B - Habrough Road		ONE HOUR	✓	126	100.000
C - A160 W		ONE HOUR	✓	1348	100.000
D - Ulceby Road		ONE HOUR	✓	169	100.000
E - E Halton Road		ONE HOUR	✓	548	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	24	125	1388	107	201
	B - Habrough Road	21	0	41	19	45
	C - A160 W	936	66	0	106	240
	D - Ulceby Road	54	16	61	0	38
	E - E Halton Road	61	115	336	36	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	1	31	42	59
	B - Habrough Road	5	0	0	0	2
	C - A160 W	75	5	0	32	30
	D - Ulceby Road	52	7	38	0	50
	E - E Halton Road	42	1	9	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.87	14.88	8.1	B	1693	2540
B - Habrough Road	0.24	8.24	0.3	A	116	173
C - A160 W	0.61	6.04	2.5	A	1237	1855
D - Ulceby Road	0.21	7.05	0.4	A	155	233
E - E Halton Road	0.56	8.23	1.4	A	503	754

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1389	347	472	2478	0.560	1382	822	0.0	1.7	4.313	A
B - Habrough Road	95	24	1613	892	0.106	94	241	0.0	0.1	4.577	A
C - A160 W	1015	254	339	2508	0.405	1011	1368	0.0	1.1	3.745	A
D - Ulceby Road	127	32	1149	1143	0.111	127	201	0.0	0.2	4.982	A
E - E Halton Road	413	103	883	1268	0.325	410	393	0.0	0.5	4.622	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1659	415	565	2422	0.685	1654	984	1.7	2.8	6.152	A
B - Habrough Road	113	28	1930	762	0.149	113	289	0.1	0.2	5.631	A
C - A160 W	1212	303	406	2469	0.491	1210	1637	1.1	1.5	4.462	A
D - Ulceby Road	152	38	1376	1043	0.146	152	240	0.2	0.2	5.686	A
E - E Halton Road	493	123	1057	1191	0.414	492	470	0.5	0.8	5.671	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	2031	508	691	2347	0.866	2012	1203	2.8	7.7	13.488	B
B - Habrough Road	139	35	2351	590	0.235	138	352	0.2	0.3	8.085	A
C - A160 W	1484	371	495	2417	0.614	1480	1994	1.5	2.4	5.984	A
D - Ulceby Road	186	47	1682	907	0.205	186	293	0.2	0.4	7.019	A
E - E Halton Road	603	151	1293	1087	0.555	601	574	0.8	1.3	8.134	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	2031	508	694	2345	0.866	2030	1207	7.7	8.1	14.882	B
B - Habrough Road	139	35	2369	582	0.238	139	354	0.3	0.3	8.243	A
C - A160 W	1484	371	498	2415	0.615	1484	2009	2.4	2.5	6.043	A
D - Ulceby Road	186	47	1688	905	0.206	186	295	0.4	0.4	7.053	A
E - E Halton Road	603	151	1297	1086	0.556	603	577	1.3	1.4	8.233	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1659	415	569	2420	0.685	1679	989	8.1	2.9	6.585	A
B - Habrough Road	113	28	1956	751	0.151	114	292	0.3	0.2	5.738	A
C - A160 W	1212	303	411	2466	0.491	1216	1659	2.5	1.5	4.512	A
D - Ulceby Road	152	38	1384	1039	0.146	152	243	0.4	0.2	5.719	A
E - E Halton Road	493	123	1063	1189	0.414	495	474	1.4	0.8	5.745	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1389	347	475	2476	0.561	1394	827	2.9	1.7	4.414	A
B - Habrough Road	95	24	1626	887	0.107	95	243	0.2	0.1	4.619	A
C - A160 W	1015	254	342	2507	0.405	1017	1379	1.5	1.1	3.779	A
D - Ulceby Road	127	32	1157	1140	0.112	127	202	0.2	0.2	5.006	A
E - E Halton Road	413	103	889	1265	0.326	414	395	0.8	0.5	4.669	A

2025 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	11.69	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.69	B

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1222	100.000
B - Habrough Road		ONE HOUR	✓	345	100.000
C - A160 W		ONE HOUR	✓	1952	100.000
D - Ulceby Road		ONE HOUR	✓	249	100.000
E - E Halton Road		ONE HOUR	✓	375	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	2	34	1057	70	59
	B - Habrough Road	160	0	57	4	124
	C - A160 W	1484	41	0	60	367
	D - Ulceby Road	121	10	90	0	28
	E - E Halton Road	72	48	243	12	0

Vehicle Mix

HV %s

		To				
From		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
	A - A160 E	100	60	78	62	55
	B - Habrough Road	1	0	6	33	4
	C - A160 W	23	3	0	49	11
	D - Ulceby Road	35	13	22	0	32
	E - E Halton Road	39	7	26	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.55	5.62	2.1	A	1121	1682
B - Habrough Road	0.44	7.71	0.8	A	317	475
C - A160 W	0.88	15.18	8.7	C	1791	2687
D - Ulceby Road	0.49	16.09	1.2	C	228	343
E - E Halton Road	0.56	14.09	1.6	B	344	516

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	920	230	332	2562	0.359	916	1378	0.0	1.0	3.820	A
B - Habrough Road	260	65	1149	1083	0.240	258	100	0.0	0.3	4.505	A
C - A160 W	1470	367	323	2518	0.584	1463	1084	0.0	1.7	4.093	A
D - Ulceby Road	187	47	1676	910	0.206	186	109	0.0	0.3	6.392	A
E - E Halton Road	282	71	1429	1027	0.275	280	433	0.0	0.5	6.025	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1099	275	398	2523	0.435	1097	1649	1.0	1.3	4.420	A
B - Habrough Road	310	78	1376	990	0.313	310	119	0.3	0.5	5.456	A
C - A160 W	1755	439	387	2480	0.707	1750	1298	1.7	2.9	5.910	A
D - Ulceby Road	224	56	2006	764	0.293	223	131	0.3	0.5	8.561	A
E - E Halton Road	337	84	1711	903	0.373	336	518	0.5	0.7	7.934	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1345	336	485	2471	0.545	1343	2006	1.3	2.1	5.578	A
B - Habrough Road	380	95	1682	864	0.440	379	145	0.5	0.8	7.633	A
C - A160 W	2149	537	473	2430	0.885	2128	1587	2.9	8.2	13.537	B
D - Ulceby Road	274	69	2441	571	0.481	272	160	0.5	1.2	15.376	C
E - E Halton Road	413	103	2081	740	0.558	410	631	0.7	1.5	13.518	B

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1345	336	489	2468	0.545	1345	2023	2.1	2.1	5.617	A
B - Habrough Road	380	95	1688	862	0.441	380	146	0.8	0.8	7.706	A
C - A160 W	2149	537	474	2429	0.885	2147	1593	8.2	8.7	15.176	C
D - Ulceby Road	274	69	2461	562	0.488	274	161	1.2	1.2	16.086	C
E - E Halton Road	413	103	2099	732	0.564	413	636	1.5	1.6	14.089	B

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1099	275	403	2520	0.436	1101	1673	2.1	1.4	4.459	A
B - Habrough Road	310	78	1384	986	0.315	311	121	0.8	0.5	5.516	A
C - A160 W	1755	439	389	2479	0.708	1778	1307	8.7	3.0	6.384	A
D - Ulceby Road	224	56	2034	751	0.298	226	132	1.2	0.6	8.877	A
E - E Halton Road	337	84	1736	892	0.378	340	525	1.6	0.8	8.218	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	920	230	336	2560	0.359	921	1389	1.4	1.0	3.853	A
B - Habrough Road	260	65	1157	1079	0.241	260	100	0.5	0.3	4.538	A
C - A160 W	1470	367	325	2517	0.584	1475	1092	3.0	1.7	4.189	A
D - Ulceby Road	187	47	1690	904	0.207	188	110	0.6	0.3	6.483	A
E - E Halton Road	282	71	1441	1022	0.276	283	436	0.8	0.5	6.115	A

2025 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	11.25	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.25	B

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1869	100.000
B - Habrough Road		ONE HOUR	✓	126	100.000
C - A160 W		ONE HOUR	✓	1386	100.000
D - Ulceby Road		ONE HOUR	✓	169	100.000
E - E Halton Road		ONE HOUR	✓	548	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	24	126	1411	107	201
	B - Habrough Road	21	0	41	19	45
	C - A160 W	974	66	0	106	240
	D - Ulceby Road	54	16	61	0	38
	E - E Halton Road	61	115	336	36	0

Vehicle Mix

HV %s

From	To					
	A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road	
A - A160 E	100	1	32	42	59	
B - Habrough Road	5	0	0	0	2	
C - A160 W	75	5	0	32	30	
D - Ulceby Road	52	7	38	0	50	
E - E Halton Road	42	1	9	14	0	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.88	16.24	8.9	C	1715	2573
B - Habrough Road	0.24	8.44	0.3	A	116	173
C - A160 W	0.63	6.35	2.7	A	1272	1908
D - Ulceby Road	0.21	7.24	0.4	A	155	233
E - E Halton Road	0.57	8.56	1.4	A	503	754

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1407	352	472	2478	0.568	1400	850	0.0	1.7	4.406	A
B - Habrough Road	95	24	1630	885	0.107	94	242	0.0	0.1	4.618	A
C - A160 W	1043	261	339	2508	0.416	1039	1385	0.0	1.1	3.828	A
D - Ulceby Road	127	32	1178	1131	0.113	127	201	0.0	0.2	5.044	A
E - E Halton Road	413	103	911	1255	0.329	410	393	0.0	0.5	4.690	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1680	420	565	2422	0.694	1675	1018	1.7	2.9	6.358	A
B - Habrough Road	113	28	1951	754	0.150	113	290	0.1	0.2	5.704	A
C - A160 W	1246	311	406	2469	0.505	1244	1658	1.1	1.6	4.606	A
D - Ulceby Road	152	38	1410	1028	0.148	152	240	0.2	0.2	5.784	A
E - E Halton Road	493	123	1091	1176	0.419	492	470	0.5	0.8	5.795	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	2058	514	691	2347	0.877	2036	1245	2.9	8.4	14.477	B
B - Habrough Road	139	35	2374	580	0.239	138	353	0.2	0.3	8.261	A
C - A160 W	1526	382	494	2417	0.631	1522	2018	1.6	2.6	6.272	A
D - Ulceby Road	186	47	1723	889	0.209	186	293	0.2	0.4	7.202	A
E - E Halton Road	603	151	1335	1069	0.565	601	574	0.8	1.4	8.444	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	2058	514	694	2345	0.877	2056	1248	8.4	8.9	16.239	C
B - Habrough Road	139	35	2394	572	0.243	139	355	0.3	0.3	8.438	A
C - A160 W	1526	382	498	2415	0.632	1526	2034	2.6	2.7	6.345	A
D - Ulceby Road	186	47	1729	886	0.210	186	295	0.4	0.4	7.239	A
E - E Halton Road	603	151	1339	1067	0.565	603	577	1.4	1.4	8.560	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1680	420	569	2420	0.694	1703	1023	8.9	3.1	6.876	A
B - Habrough Road	113	28	1980	742	0.153	114	293	0.3	0.2	5.824	A
C - A160 W	1246	311	412	2466	0.505	1250	1682	2.7	1.6	4.659	A
D - Ulceby Road	152	38	1419	1024	0.148	152	243	0.4	0.2	5.821	A
E - E Halton Road	493	123	1097	1174	0.420	495	475	1.4	0.8	5.874	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1407	352	475	2476	0.568	1412	855	3.1	1.8	4.515	A
B - Habrough Road	95	24	1644	880	0.108	95	244	0.2	0.1	4.659	A
C - A160 W	1043	261	342	2507	0.416	1045	1397	1.6	1.1	3.867	A
D - Ulceby Road	127	32	1185	1127	0.113	128	202	0.2	0.2	5.070	A
E - E Halton Road	413	103	917	1253	0.329	414	396	0.8	0.5	4.740	A

2032 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	8.32	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.32	A

Traffic Demand

Demand Set 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	2032 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1138	100.000
B - Habrough Road		ONE HOUR	✓	362	100.000
C - A160 W		ONE HOUR	✓	1761	100.000
D - Ulceby Road		ONE HOUR	✓	264	100.000
E - E Halton Road		ONE HOUR	✓	369	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	3	34	964	74	63
	B - Habrough Road	164	0	61	5	132
	C - A160 W	1331	44	0	64	322
	D - Ulceby Road	128	10	96	0	30
	E - E Halton Road	77	51	228	13	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	69	82	62	55
	B - Habrough Road	1	0	6	33	4
	C - A160 W	21	3	0	49	13
	D - Ulceby Road	35	13	22	0	32
	E - E Halton Road	39	7	32	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.51	5.28	1.8	A	1044	1566
B - Habrough Road	0.44	7.37	0.8	A	332	498
C - A160 W	0.80	9.04	4.8	A	1616	2424
D - Ulceby Road	0.45	12.96	1.0	B	242	363
E - E Halton Road	0.51	11.90	1.3	B	339	508

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	857	214	331	2563	0.334	853	1276	0.0	0.9	3.749	A
B - Habrough Road	273	68	1080	1111	0.245	271	104	0.0	0.3	4.418	A
C - A160 W	1326	331	340	2508	0.529	1320	1011	0.0	1.3	3.614	A
D - Ulceby Road	199	50	1544	969	0.205	197	117	0.0	0.3	6.001	A
E - E Halton Road	278	69	1331	1071	0.260	276	410	0.0	0.4	5.824	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1023	256	396	2524	0.405	1022	1528	0.9	1.2	4.274	A
B - Habrough Road	325	81	1293	1023	0.318	325	125	0.3	0.5	5.316	A
C - A160 W	1583	396	407	2468	0.641	1580	1211	1.3	2.1	4.835	A
D - Ulceby Road	237	59	1847	834	0.285	237	140	0.3	0.5	7.751	A
E - E Halton Road	332	83	1593	955	0.347	331	491	0.4	0.7	7.418	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1253	313	484	2471	0.507	1251	1865	1.2	1.8	5.252	A
B - Habrough Road	399	100	1582	905	0.440	397	152	0.5	0.8	7.301	A
C - A160 W	1939	485	498	2415	0.803	1929	1481	2.1	4.7	8.692	A
D - Ulceby Road	291	73	2256	653	0.445	289	171	0.5	1.0	12.663	B
E - E Halton Road	406	102	1945	800	0.508	404	600	0.7	1.3	11.629	B

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1253	313	487	2470	0.507	1253	1875	1.8	1.8	5.280	A
B - Habrough Road	399	100	1586	903	0.441	399	153	0.8	0.8	7.365	A
C - A160 W	1939	485	500	2414	0.803	1938	1485	4.7	4.8	9.044	A
D - Ulceby Road	291	73	2267	648	0.449	291	172	1.0	1.0	12.961	B
E - E Halton Road	406	102	1955	796	0.511	406	602	1.3	1.3	11.896	B

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1023	256	400	2521	0.406	1025	1541	1.8	1.2	4.302	A
B - Habrough Road	325	81	1300	1021	0.319	327	126	0.8	0.5	5.365	A
C - A160 W	1583	396	410	2467	0.642	1593	1217	4.8	2.2	4.991	A
D - Ulceby Road	237	59	1862	827	0.287	239	141	1.0	0.5	7.909	A
E - E Halton Road	332	83	1607	949	0.350	334	494	1.3	0.7	7.575	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	857	214	334	2561	0.335	858	1285	1.2	0.9	3.777	A
B - Habrough Road	273	68	1087	1108	0.246	273	105	0.5	0.3	4.454	A
C - A160 W	1326	331	342	2507	0.529	1329	1018	2.2	1.4	3.673	A
D - Ulceby Road	199	50	1554	964	0.206	200	118	0.5	0.3	6.067	A
E - E Halton Road	278	69	1341	1066	0.261	279	413	0.7	0.5	5.897	A

2032 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	7.20	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.20	A

Traffic Demand

Demand Set 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	2032 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1682	100.000
B - Habrough Road		ONE HOUR	✓	131	100.000
C - A160 W		ONE HOUR	✓	1199	100.000
D - Ulceby Road		ONE HOUR	✓	180	100.000
E - E Halton Road		ONE HOUR	✓	482	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	26	128	1201	114	213
	B - Habrough Road	20	0	43	20	48
	C - A160 W	795	70	0	113	221
	D - Ulceby Road	58	17	65	0	40
	E - E Halton Road	65	123	256	38	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	1	30	42	59
	B - Habrough Road	6	0	0	0	2
	C - A160 W	78	5	0	32	37
	D - Ulceby Road	52	7	38	0	50
	E - E Halton Road	42	1	13	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.78	8.86	4.5	A	1543	2315
B - Habrough Road	0.21	6.70	0.3	A	120	180
C - A160 W	0.55	5.27	1.9	A	1100	1650
D - Ulceby Road	0.20	6.54	0.4	A	165	248
E - E Halton Road	0.46	6.58	1.0	A	442	663

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1266	317	426	2506	0.505	1261	723	0.0	1.3	3.792	A
B - Habrough Road	99	25	1434	966	0.102	98	253	0.0	0.1	4.215	A
C - A160 W	903	226	359	2497	0.362	899	1173	0.0	0.9	3.546	A
D - Ulceby Road	136	34	1045	1190	0.114	135	214	0.0	0.2	4.802	A
E - E Halton Road	363	91	788	1310	0.277	361	391	0.0	0.4	4.272	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1512	378	511	2455	0.616	1509	865	1.3	2.1	4.993	A
B - Habrough Road	118	29	1716	850	0.139	118	303	0.1	0.2	4.994	A
C - A160 W	1078	269	430	2455	0.439	1077	1404	0.9	1.2	4.114	A
D - Ulceby Road	162	40	1251	1099	0.147	162	256	0.2	0.2	5.409	A
E - E Halton Road	433	108	944	1241	0.349	433	469	0.4	0.6	5.016	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1852	463	625	2386	0.776	1843	1059	2.1	4.4	8.572	A
B - Habrough Road	144	36	2097	694	0.208	144	371	0.2	0.3	6.648	A
C - A160 W	1320	330	525	2399	0.550	1317	1715	1.2	1.9	5.237	A
D - Ulceby Road	198	50	1530	975	0.203	198	313	0.2	0.4	6.520	A
E - E Halton Road	531	133	1155	1148	0.462	529	573	0.6	1.0	6.544	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1852	463	626	2385	0.776	1852	1061	4.4	4.5	8.858	A
B - Habrough Road	144	36	2106	690	0.209	144	372	0.3	0.3	6.701	A
C - A160 W	1320	330	527	2398	0.551	1320	1723	1.9	1.9	5.269	A
D - Ulceby Road	198	50	1534	973	0.204	198	314	0.4	0.4	6.542	A
E - E Halton Road	531	133	1157	1147	0.463	531	575	1.0	1.0	6.584	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1512	378	513	2454	0.616	1521	869	4.5	2.1	5.134	A
B - Habrough Road	118	29	1729	844	0.139	118	305	0.3	0.2	5.040	A
C - A160 W	1078	269	433	2453	0.439	1081	1415	1.9	1.2	4.144	A
D - Ulceby Road	162	40	1256	1096	0.148	162	257	0.4	0.2	5.433	A
E - E Halton Road	433	108	947	1240	0.350	435	471	1.0	0.6	5.054	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1266	317	429	2504	0.506	1269	727	2.1	1.4	3.849	A
B - Habrough Road	99	25	1444	962	0.103	99	255	0.2	0.1	4.241	A
C - A160 W	903	226	361	2495	0.362	904	1181	1.2	0.9	3.570	A
D - Ulceby Road	136	34	1051	1187	0.114	136	215	0.2	0.2	4.822	A
E - E Halton Road	363	91	793	1308	0.277	364	394	0.6	0.4	4.302	A

2032 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	17.46	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	17.46	C

Traffic Demand

Demand Set 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	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1278	100.000
B - Habrough Road		ONE HOUR	✓	368	100.000
C - A160 W		ONE HOUR	✓	2053	100.000
D - Ulceby Road		ONE HOUR	✓	264	100.000
E - E Halton Road		ONE HOUR	✓	398	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	3	34	1104	74	63
	B - Habrough Road	170	0	61	5	132
	C - A160 W	1558	44	0	64	387
	D - Ulceby Road	128	10	96	0	30
	E - E Halton Road	77	51	257	13	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	66	78	62	55
	B - Habrough Road	1	0	6	33	4
	C - A160 W	23	3	0	49	11
	D - Ulceby Road	35	13	22	0	32
	E - E Halton Road	39	7	26	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.57	6.05	2.3	A	1173	1759
B - Habrough Road	0.49	8.80	1.0	A	338	507
C - A160 W	0.94	25.47	15.0	D	1884	2826
D - Ulceby Road	0.58	21.46	1.7	C	242	363
E - E Halton Road	0.64	18.15	2.1	C	365	548

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	962	241	352	2550	0.377	958	1450	0.0	1.1	3.956	A
B - Habrough Road	277	69	1206	1059	0.262	276	104	0.0	0.4	4.733	A
C - A160 W	1546	386	345	2505	0.617	1538	1137	0.0	1.9	4.458	A
D - Ulceby Road	199	50	1766	870	0.228	197	117	0.0	0.4	6.872	A
E - E Halton Road	300	75	1504	994	0.301	297	458	0.0	0.5	6.454	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1149	287	422	2508	0.458	1147	1735	1.1	1.5	4.633	A
B - Habrough Road	331	83	1444	961	0.344	330	125	0.4	0.5	5.880	A
C - A160 W	1846	461	413	2465	0.749	1839	1362	1.9	3.5	6.872	A
D - Ulceby Road	237	59	2112	716	0.331	236	140	0.4	0.6	9.633	A
E - E Halton Road	358	89	1800	864	0.414	356	549	0.5	0.9	8.861	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1407	352	513	2454	0.573	1404	2099	1.5	2.3	5.994	A
B - Habrough Road	405	101	1765	830	0.488	403	151	0.5	1.0	8.677	A
C - A160 W	2260	565	505	2411	0.938	2222	1664	3.5	13.2	19.819	C
D - Ulceby Road	291	73	2556	520	0.559	287	170	0.6	1.6	19.616	C
E - E Halton Road	438	110	2178	698	0.628	434	665	0.9	2.0	16.793	C

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1407	352	518	2451	0.574	1407	2126	2.3	2.3	6.050	A
B - Habrough Road	405	101	1772	827	0.490	405	153	1.0	1.0	8.805	A
C - A160 W	2260	565	506	2410	0.938	2253	1671	13.2	15.0	25.465	D
D - Ulceby Road	291	73	2588	505	0.575	290	172	1.6	1.7	21.458	C
E - E Halton Road	438	110	2206	685	0.639	438	672	2.0	2.1	18.146	C

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1149	287	430	2504	0.459	1152	1778	2.3	1.5	4.684	A
B - Habrough Road	331	83	1455	957	0.346	333	127	1.0	0.6	5.966	A
C - A160 W	1846	461	415	2464	0.749	1891	1372	15.0	3.7	8.155	A
D - Ulceby Road	237	59	2164	693	0.342	241	142	1.7	0.7	10.342	B
E - E Halton Road	358	89	1846	844	0.424	363	560	2.1	0.9	9.462	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	962	241	356	2548	0.378	964	1464	1.5	1.1	3.993	A
B - Habrough Road	277	69	1215	1055	0.263	278	105	0.6	0.4	4.783	A
C - A160 W	1546	386	347	2504	0.617	1553	1146	3.7	2.0	4.600	A
D - Ulceby Road	199	50	1782	863	0.230	200	118	0.7	0.4	7.001	A
E - E Halton Road	300	75	1519	988	0.303	301	463	0.9	0.6	6.586	A

2032 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	15.26	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	15.26	C

Traffic Demand

Demand Set 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	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1947	100.000
B - Habrough Road		ONE HOUR	✓	133	100.000
C - A160 W		ONE HOUR	✓	1420	100.000
D - Ulceby Road		ONE HOUR	✓	180	100.000
E - E Halton Road		ONE HOUR	✓	578	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	26	133	1461	114	213
	B - Habrough Road	22	0	43	20	48
	C - A160 W	984	70	0	113	253
	D - Ulceby Road	58	17	65	0	40
	E - E Halton Road	65	123	352	38	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	1	31	42	59
	B - Habrough Road	5	0	0	0	2
	C - A160 W	75	5	0	32	30
	D - Ulceby Road	52	7	38	0	50
	E - E Halton Road	42	1	9	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.92	24.29	13.6	C	1787	2680
B - Habrough Road	0.28	9.50	0.4	A	122	183
C - A160 W	0.65	6.74	2.9	A	1303	1955
D - Ulceby Road	0.23	7.61	0.4	A	165	248
E - E Halton Road	0.60	9.49	1.7	A	530	796

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1466	366	498	2463	0.595	1458	866	0.0	1.9	4.698	A
B - Habrough Road	100	25	1699	857	0.117	100	257	0.0	0.1	4.823	A
C - A160 W	1069	267	360	2496	0.428	1064	1439	0.0	1.2	3.915	A
D - Ulceby Road	136	34	1211	1116	0.121	135	214	0.0	0.2	5.159	A
E - E Halton Road	435	109	931	1247	0.349	433	415	0.0	0.6	4.866	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1750	438	597	2403	0.728	1744	1037	1.9	3.4	7.145	A
B - Habrough Road	120	30	2033	720	0.166	119	308	0.1	0.2	6.083	A
C - A160 W	1277	319	431	2454	0.520	1274	1721	1.2	1.7	4.756	A
D - Ulceby Road	162	40	1450	1010	0.160	162	256	0.2	0.3	5.973	A
E - E Halton Road	520	130	1115	1166	0.446	518	497	0.6	0.9	6.124	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	2144	536	729	2324	0.922	2109	1267	3.4	12.2	19.560	C
B - Habrough Road	146	37	2463	543	0.270	146	374	0.2	0.4	9.179	A
C - A160 W	1563	391	523	2400	0.651	1559	2087	1.7	2.9	6.643	A
D - Ulceby Road	198	50	1770	868	0.228	198	311	0.3	0.4	7.555	A
E - E Halton Road	636	159	1363	1057	0.602	633	605	0.9	1.6	9.321	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	2144	536	732	2322	0.923	2138	1271	12.2	13.6	24.293	C
B - Habrough Road	146	37	2493	531	0.276	146	377	0.4	0.4	9.496	A
C - A160 W	1563	391	529	2397	0.652	1563	2111	2.9	2.9	6.742	A
D - Ulceby Road	198	50	1778	864	0.229	198	313	0.4	0.4	7.608	A
E - E Halton Road	636	159	1367	1055	0.603	636	609	1.6	1.7	9.490	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1750	438	601	2401	0.729	1790	1043	13.6	3.7	8.267	A
B - Habrough Road	120	30	2079	701	0.171	120	312	0.4	0.2	6.299	A
C - A160 W	1277	319	440	2449	0.521	1281	1759	2.9	1.7	4.836	A
D - Ulceby Road	162	40	1462	1005	0.161	162	259	0.4	0.3	6.023	A
E - E Halton Road	520	130	1121	1163	0.447	523	504	1.7	0.9	6.233	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1466	366	502	2460	0.596	1473	871	3.7	2.0	4.845	A
B - Habrough Road	100	25	1715	850	0.118	100	259	0.2	0.1	4.877	A
C - A160 W	1069	267	364	2494	0.429	1071	1452	1.7	1.2	3.957	A
D - Ulceby Road	136	34	1220	1112	0.122	136	215	0.3	0.2	5.193	A
E - E Halton Road	435	109	937	1244	0.350	436	418	0.9	0.6	4.926	A

2032 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	18.03	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	18.03	C

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1293	100.000
B - Habrough Road		ONE HOUR	✓	368	100.000
C - A160 W		ONE HOUR	✓	2061	100.000
D - Ulceby Road		ONE HOUR	✓	264	100.000
E - E Halton Road		ONE HOUR	✓	398	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	3	36	1117	74	63
	B - Habrough Road	170	0	61	5	132
	C - A160 W	1566	44	0	64	387
	D - Ulceby Road	128	10	96	0	30
	E - E Halton Road	77	51	257	13	0

Vehicle Mix

HV %s

From	To					
	A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road	
A - A160 E	100	60	78	62	55	
B - Habrough Road	1	0	6	33	4	
C - A160 W	23	3	0	49	11	
D - Ulceby Road	35	13	22	0	32	
E - E Halton Road	39	7	26	22	0	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.58	6.14	2.4	A	1186	1780
B - Habrough Road	0.49	8.93	1.0	A	338	507
C - A160 W	0.94	26.56	15.7	D	1891	2837
D - Ulceby Road	0.58	21.81	1.7	C	242	363
E - E Halton Road	0.64	18.41	2.2	C	365	548

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	973	243	352	2550	0.382	969	1456	0.0	1.1	3.980	A
B - Habrough Road	277	69	1216	1055	0.263	276	106	0.0	0.4	4.757	A
C - A160 W	1552	388	345	2505	0.619	1544	1147	0.0	1.9	4.484	A
D - Ulceby Road	199	50	1772	867	0.229	197	117	0.0	0.4	6.899	A
E - E Halton Road	300	75	1510	992	0.302	297	458	0.0	0.5	6.479	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1162	291	422	2508	0.463	1161	1742	1.1	1.5	4.675	A
B - Habrough Road	331	83	1456	957	0.346	330	126	0.4	0.5	5.925	A
C - A160 W	1853	463	413	2465	0.752	1846	1374	1.9	3.5	6.951	A
D - Ulceby Road	237	59	2119	713	0.333	236	140	0.4	0.6	9.696	A
E - E Halton Road	358	89	1807	861	0.416	356	549	0.5	0.9	8.916	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1424	356	512	2454	0.580	1420	2106	1.5	2.4	6.081	A
B - Habrough Road	405	101	1779	824	0.492	403	154	0.5	1.0	8.796	A
C - A160 W	2269	567	504	2411	0.941	2229	1678	3.5	13.7	20.389	C
D - Ulceby Road	291	73	2563	516	0.563	287	170	0.6	1.6	19.868	C
E - E Halton Road	438	110	2185	695	0.631	434	665	0.9	2.0	16.986	C

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1424	356	518	2451	0.581	1424	2134	2.4	2.4	6.141	A
B - Habrough Road	405	101	1786	821	0.493	405	155	1.0	1.0	8.929	A
C - A160 W	2269	567	506	2410	0.942	2261	1685	13.7	15.7	26.556	D
D - Ulceby Road	291	73	2596	502	0.579	290	171	1.6	1.7	21.810	C
E - E Halton Road	438	110	2214	682	0.643	438	672	2.0	2.2	18.408	C

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1162	291	430	2503	0.464	1166	1788	2.4	1.5	4.728	A
B - Habrough Road	331	83	1467	952	0.347	333	129	1.0	0.6	6.014	A
C - A160 W	1853	463	416	2463	0.752	1900	1384	15.7	3.8	8.339	A
D - Ulceby Road	237	59	2174	689	0.344	241	142	1.7	0.7	10.443	B
E - E Halton Road	358	89	1855	840	0.426	363	560	2.2	0.9	9.546	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	973	243	356	2548	0.382	975	1470	1.5	1.1	4.017	A
B - Habrough Road	277	69	1225	1051	0.264	278	107	0.6	0.4	4.808	A
C - A160 W	1552	388	347	2504	0.620	1559	1156	3.8	2.0	4.633	A
D - Ulceby Road	199	50	1788	860	0.231	200	118	0.7	0.4	7.034	A
E - E Halton Road	300	75	1525	985	0.304	301	463	0.9	0.6	6.613	A

2032 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	16.89	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	16.89	C

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1971	100.000
B - Habrough Road		ONE HOUR	✓	133	100.000
C - A160 W		ONE HOUR	✓	1459	100.000
D - Ulceby Road		ONE HOUR	✓	180	100.000
E - E Halton Road		ONE HOUR	✓	578	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	26	134	1484	114	213
	B - Habrough Road	22	0	43	20	48
	C - A160 W	1023	70	0	113	253
	D - Ulceby Road	58	17	65	0	40
	E - E Halton Road	65	123	352	38	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	1	32	42	59
	B - Habrough Road	5	0	0	0	2
	C - A160 W	75	5	0	32	30
	D - Ulceby Road	52	7	38	0	50
	E - E Halton Road	42	1	9	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.93	27.46	15.5	D	1809	2713
B - Habrough Road	0.28	9.74	0.4	A	122	183
C - A160 W	0.67	7.12	3.1	A	1339	2008
D - Ulceby Road	0.23	7.83	0.4	A	165	248
E - E Halton Road	0.61	9.94	1.7	A	530	796

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1484	371	498	2463	0.603	1476	895	0.0	2.0	4.807	A
B - Habrough Road	100	25	1716	850	0.118	100	258	0.0	0.1	4.868	A
C - A160 W	1098	275	360	2496	0.440	1094	1456	0.0	1.2	4.007	A
D - Ulceby Road	136	34	1240	1103	0.123	135	213	0.0	0.2	5.231	A
E - E Halton Road	435	109	960	1234	0.353	433	415	0.0	0.6	4.943	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1772	443	597	2403	0.737	1765	1071	2.0	3.6	7.410	A
B - Habrough Road	120	30	2053	711	0.168	119	308	0.1	0.2	6.168	A
C - A160 W	1312	328	431	2454	0.534	1309	1742	1.2	1.8	4.914	A
D - Ulceby Road	162	40	1485	995	0.163	162	256	0.2	0.3	6.084	A
E - E Halton Road	520	130	1150	1150	0.452	518	497	0.6	0.9	6.273	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	2170	543	729	2324	0.934	2130	1310	3.6	13.6	21.308	C
B - Habrough Road	146	37	2484	535	0.274	146	375	0.2	0.4	9.375	A
C - A160 W	1606	402	522	2401	0.669	1601	2108	1.8	3.1	7.005	A
D - Ulceby Road	198	50	1812	849	0.233	198	311	0.3	0.4	7.770	A
E - E Halton Road	636	159	1405	1038	0.613	633	604	0.9	1.7	9.740	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	2170	543	732	2322	0.935	2162	1314	13.6	15.5	27.458	D
B - Habrough Road	146	37	2516	522	0.281	146	378	0.4	0.4	9.737	A
C - A160 W	1606	402	528	2397	0.670	1606	2135	3.1	3.1	7.124	A
D - Ulceby Road	198	50	1821	845	0.234	198	313	0.4	0.4	7.832	A
E - E Halton Road	636	159	1410	1036	0.614	636	609	1.7	1.7	9.937	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1772	443	601	2401	0.738	1819	1078	15.5	3.9	8.835	A
B - Habrough Road	120	30	2106	690	0.173	120	313	0.4	0.2	6.424	A
C - A160 W	1312	328	441	2448	0.536	1317	1785	3.1	1.8	5.006	A
D - Ulceby Road	162	40	1499	988	0.164	162	260	0.4	0.3	6.143	A
E - E Halton Road	520	130	1157	1147	0.453	523	504	1.7	0.9	6.395	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1484	371	502	2460	0.603	1491	901	3.9	2.0	4.971	A
B - Habrough Road	100	25	1733	843	0.119	100	260	0.2	0.1	4.926	A
C - A160 W	1098	275	364	2494	0.440	1101	1470	1.8	1.2	4.053	A
D - Ulceby Road	136	34	1249	1099	0.123	136	215	0.3	0.2	5.264	A
E - E Halton Road	435	109	967	1231	0.353	436	418	0.9	0.6	5.008	A

Appendix TN2 O

A160/ Ulceby Road/ Habrough Road/ East Halton Road Average Flows Junction
Assessment Results

<h1>Junctions 10</h1>
<h2>ARCADY 10 - Roundabout Module</h2>
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Filename: A160-Habrough Road-Ulceby Road-E Halton Road.j10
Path: P:\23000's\23325\Junction Assessment\4 Average Flow Assessment
Report generation date: 19/10/2023 12:47:40

- »2021 Base, AM
- »2021 Base, PM
- »2025 Base, AM
- »2025 Base, PM
- »2025 Base + Committed, AM
- »2025 Base + Committed, PM
- »2025 Base + Committed + Development, AM
- »2025 Base + Committed + Development, PM
- »2032 Base, AM
- »2032 Base, PM
- »2032 Base + Committed, AM
- »2032 Base + Committed, PM
- »2032 Base + Committed + Development, AM
- »2032 Base + Committed + Development, PM

Summary of junction performance

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Base						
A - A160 E	1.5	4.67	0.45	2.9	6.25	0.69
B - Habrough Road	0.6	6.09	0.37	0.2	5.66	0.17
C - A160 W	2.9	6.13	0.71	1.5	4.58	0.49
D - Ulceby Road	0.7	9.49	0.35	0.3	5.88	0.17
E - E Halton Road	0.9	8.96	0.41	0.7	5.64	0.40
2025 Base						
A - A160 E	1.6	4.89	0.47	3.4	7.08	0.72
B - Habrough Road	0.7	6.51	0.40	0.2	6.04	0.18
C - A160 W	3.5	7.01	0.75	1.7	4.83	0.51
D - Ulceby Road	0.8	10.62	0.39	0.3	6.13	0.18
E - E Halton Road	1.0	9.91	0.45	0.8	5.97	0.42
2025 Base + Committed						
A - A160 E	2.0	5.55	0.54	8.1	14.88	0.87
B - Habrough Road	0.8	7.62	0.44	0.3	8.24	0.24
C - A160 W	8.4	14.75	0.88	2.5	6.04	0.61
D - Ulceby Road	1.2	15.88	0.48	0.4	7.05	0.21
E - E Halton Road	1.6	13.92	0.56	1.4	8.23	0.56
2025 Base + Committed + Development						
A - A160 E	2.1	5.63	0.55	8.8	16.07	0.88
B - Habrough Road	0.8	7.72	0.44	0.3	8.41	0.24
C - A160 W	9.3	16.20	0.89	2.6	6.30	0.63
D - Ulceby Road	1.2	16.52	0.49	0.4	7.21	0.21
E - E Halton Road	1.6	14.43	0.57	1.4	8.52	0.56
2032 Base						
A - A160 E	1.8	5.28	0.51	4.5	8.86	0.78
B - Habrough Road	0.8	7.37	0.44	0.3	6.70	0.21
C - A160 W	4.8	9.04	0.80	1.9	5.27	0.55
D - Ulceby Road	1.0	12.96	0.45	0.4	6.54	0.20
E - E Halton Road	1.3	11.90	0.51	1.0	6.58	0.46
2032 Base + Committed						
A - A160 E	2.3	6.05	0.57	13.6	24.29	0.92
B - Habrough Road	1.0	8.80	0.49	0.4	9.50	0.28
C - A160 W	15.0	25.47	0.94	2.9	6.74	0.65
D - Ulceby Road	1.7	21.46	0.58	0.4	7.61	0.23
E - E Halton Road	2.1	18.15	0.64	1.7	9.49	0.60
2032 Base + Committed + Development						
A - A160 E	2.4	6.15	0.58	15.3	27.05	0.93
B - Habrough Road	1.0	8.94	0.49	0.4	9.71	0.28
C - A160 W	17.4	29.12	0.95	3.1	7.06	0.67
D - Ulceby Road	1.8	22.59	0.59	0.4	7.80	0.23
E - E Halton Road	2.2	18.98	0.65	1.7	9.87	0.61

Values shown are the highest values encountered over all time segments. Delay is the maximum value of Av. delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	18/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\Arcady
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

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	2021 Base	AM	ONE HOUR	06:45	08:15	15	✓
D2	2021 Base	PM	ONE HOUR	15:45	17:15	15	✓
D3	2025 Base	AM	ONE HOUR	06:45	08:15	15	✓
D4	2025 Base	PM	ONE HOUR	15:45	17:15	15	✓
D5	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D6	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D7	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D8	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓
D9	2032 Base	AM	ONE HOUR	06:45	08:15	15	✓
D10	2032 Base	PM	ONE HOUR	15:45	17:15	15	✓
D11	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D12	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D13	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D14	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2021 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	6.20	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.20	A

Arms

Arms

Arm	Name	Description	No give-way line
A	A160 E		
B	Habrough Road		
C	A160 W		
D	Ulceby Road		
E	E Halton Road		

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
A - A160 E	8.00	9.20	20.0	50.0	100.0	35.0		
B - Habrough Road	3.80	7.00	13.7	15.0	100.0	51.0		
C - A160 W	7.80	9.40	15.0	36.0	100.0	38.0		
D - Ulceby Road	3.90	6.90	10.2	33.0	100.0	35.0		
E - E Halton Road	3.60	7.50	12.5	27.0	100.0	38.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A160 E	0.601	2762
B - Habrough Road	0.410	1554
C - A160 W	0.589	2708
D - Ulceby Road	0.444	1653
E - E Halton Road	0.440	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	2021 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1021	100.000
B - Habrough Road		ONE HOUR	✓	326	100.000
C - A160 W		ONE HOUR	✓	1581	100.000
D - Ulceby Road		ONE HOUR	✓	238	100.000
E - E Halton Road		ONE HOUR	✓	332	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	2	30	866	67	56
	B - Habrough Road	148	0	55	4	119
	C - A160 W	1196	39	0	57	289
	D - Ulceby Road	115	9	87	0	27
	E - E Halton Road	69	46	205	12	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	69	82	62	55
	B - Habrough Road	1	0	6	33	4
	C - A160 W	21	3	0	49	13
	D - Ulceby Road	35	13	22	0	32
	E - E Halton Road	39	7	32	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.45	4.67	1.5	A	937	1405
B - Habrough Road	0.37	6.09	0.6	A	299	449
C - A160 W	0.71	6.13	2.9	A	1451	2176
D - Ulceby Road	0.35	9.49	0.7	A	218	328
E - E Halton Road	0.41	8.96	0.9	A	305	457

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	769	192	298	2583	0.298	766	1147	0.0	0.8	3.529	A
B - Habrough Road	245	61	971	1156	0.212	244	93	0.0	0.3	4.071	A
C - A160 W	1190	298	306	2528	0.471	1186	909	0.0	1.1	3.212	A
D - Ulceby Road	179	45	1387	1038	0.173	178	105	0.0	0.3	5.381	A
E - E Halton Road	250	62	1197	1130	0.221	248	368	0.0	0.4	5.253	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	918	229	357	2547	0.360	917	1373	0.8	1.0	3.938	A
B - Habrough Road	293	73	1163	1077	0.272	293	111	0.3	0.4	4.735	A
C - A160 W	1421	355	366	2493	0.570	1419	1089	1.1	1.6	4.009	A
D - Ulceby Road	214	53	1660	917	0.233	213	126	0.3	0.4	6.582	A
E - E Halton Road	298	75	1433	1026	0.291	298	441	0.4	0.5	6.363	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1124	281	436	2500	0.450	1122	1679	1.0	1.4	4.659	A
B - Habrough Road	359	90	1423	970	0.370	358	136	0.4	0.6	6.060	A
C - A160 W	1741	435	448	2444	0.712	1735	1333	1.6	2.9	6.035	A
D - Ulceby Road	262	66	2030	753	0.348	261	154	0.4	0.7	9.388	A
E - E Halton Road	366	91	1752	885	0.413	364	539	0.5	0.9	8.871	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1124	281	438	2499	0.450	1124	1684	1.4	1.5	4.674	A
B - Habrough Road	359	90	1426	969	0.370	359	137	0.6	0.6	6.089	A
C - A160 W	1741	435	449	2444	0.712	1741	1335	2.9	2.9	6.129	A
D - Ulceby Road	262	66	2036	750	0.349	262	154	0.7	0.7	9.487	A
E - E Halton Road	366	91	1757	883	0.414	365	541	0.9	0.9	8.959	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	918	229	360	2546	0.361	920	1381	1.5	1.0	3.955	A
B - Habrough Road	293	73	1167	1075	0.273	294	112	0.6	0.4	4.761	A
C - A160 W	1421	355	368	2492	0.570	1427	1093	2.9	1.6	4.067	A
D - Ulceby Road	214	53	1668	913	0.234	215	126	0.7	0.4	6.648	A
E - E Halton Road	298	75	1440	1022	0.292	300	443	0.9	0.5	6.429	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	769	192	300	2581	0.298	770	1154	1.0	0.8	3.550	A
B - Habrough Road	245	61	977	1153	0.213	246	94	0.4	0.3	4.097	A
C - A160 W	1190	298	308	2527	0.471	1192	915	1.6	1.1	3.236	A
D - Ulceby Road	179	45	1394	1035	0.173	180	106	0.4	0.3	5.421	A
E - E Halton Road	250	62	1204	1127	0.222	251	370	0.5	0.4	5.298	A

2021 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	5.59	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.59	A

Traffic Demand

Demand Set 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	2021 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1513	100.000
B - Habrough Road		ONE HOUR	✓	118	100.000
C - A160 W		ONE HOUR	✓	1080	100.000
D - Ulceby Road		ONE HOUR	✓	162	100.000
E - E Halton Road		ONE HOUR	✓	434	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	23	115	1081	102	192
	B - Habrough Road	18	0	39	18	43
	C - A160 W	716	63	0	102	199
	D - Ulceby Road	52	15	59	0	36
	E - E Halton Road	59	110	231	34	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	1	30	42	59
	B - Habrough Road	6	0	0	0	2
	C - A160 W	78	5	0	32	37
	D - Ulceby Road	52	7	38	0	50
	E - E Halton Road	42	1	13	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.69	6.25	2.9	A	1388	2083
B - Habrough Road	0.17	5.66	0.2	A	108	162
C - A160 W	0.49	4.58	1.5	A	991	1487
D - Ulceby Road	0.17	5.88	0.3	A	149	223
E - E Halton Road	0.40	5.64	0.7	A	398	597

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1139	285	384	2531	0.450	1135	651	0.0	1.1	3.384	A
B - Habrough Road	89	22	1291	1024	0.087	88	227	0.0	0.1	3.907	A
C - A160 W	813	203	322	2518	0.323	810	1057	0.0	0.7	3.318	A
D - Ulceby Road	122	30	941	1236	0.099	121	192	0.0	0.2	4.548	A
E - E Halton Road	327	82	709	1344	0.243	325	352	0.0	0.4	3.979	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1360	340	460	2486	0.547	1358	779	1.1	1.6	4.195	A
B - Habrough Road	106	27	1546	920	0.115	106	272	0.1	0.1	4.494	A
C - A160 W	971	243	386	2481	0.391	970	1266	0.7	1.0	3.756	A
D - Ulceby Road	146	36	1126	1154	0.126	145	230	0.2	0.2	5.028	A
E - E Halton Road	390	98	849	1283	0.304	390	422	0.4	0.5	4.544	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1666	416	563	2424	0.687	1661	954	1.6	2.8	6.170	A
B - Habrough Road	130	32	1891	778	0.167	130	333	0.1	0.2	5.636	A
C - A160 W	1189	297	472	2430	0.489	1187	1548	1.0	1.5	4.560	A
D - Ulceby Road	178	45	1378	1042	0.171	178	281	0.2	0.3	5.867	A
E - E Halton Road	478	119	1040	1199	0.399	477	516	0.5	0.7	5.616	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1666	416	564	2423	0.687	1666	956	2.8	2.9	6.253	A
B - Habrough Road	130	32	1896	776	0.167	130	334	0.2	0.2	5.659	A
C - A160 W	1189	297	473	2429	0.489	1189	1552	1.5	1.5	4.577	A
D - Ulceby Road	178	45	1381	1041	0.171	178	282	0.3	0.3	5.880	A
E - E Halton Road	478	119	1042	1198	0.399	478	517	0.7	0.7	5.638	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1360	340	461	2485	0.547	1365	782	2.9	1.6	4.251	A
B - Habrough Road	106	27	1553	917	0.116	106	273	0.2	0.1	4.515	A
C - A160 W	971	243	388	2480	0.392	973	1272	1.5	1.0	3.771	A
D - Ulceby Road	146	36	1130	1152	0.126	146	231	0.3	0.2	5.044	A
E - E Halton Road	390	98	852	1281	0.304	391	424	0.7	0.5	4.566	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1139	285	386	2530	0.450	1141	654	1.6	1.1	3.416	A
B - Habrough Road	89	22	1299	1021	0.087	89	228	0.1	0.1	3.925	A
C - A160 W	813	203	324	2517	0.323	814	1063	1.0	0.8	3.335	A
D - Ulceby Road	122	30	945	1234	0.099	122	193	0.2	0.2	4.562	A
E - E Halton Road	327	82	713	1343	0.243	327	354	0.5	0.4	4.001	A

2025 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	6.87	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.87	A

Traffic Demand

Demand Set 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	2025 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1067	100.000
B - Habrough Road		ONE HOUR	✓	339	100.000
C - A160 W		ONE HOUR	✓	1652	100.000
D - Ulceby Road		ONE HOUR	✓	249	100.000
E - E Halton Road		ONE HOUR	✓	346	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	2	32	904	70	59
	B - Habrough Road	154	0	57	4	124
	C - A160 W	1249	41	0	60	302
	D - Ulceby Road	121	10	90	0	28
	E - E Halton Road	72	48	214	12	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	69	82	62	55
	B - Habrough Road	1	0	6	33	4
	C - A160 W	21	3	0	49	13
	D - Ulceby Road	35	13	22	0	32
	E - E Halton Road	39	7	32	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.47	4.89	1.6	A	979	1469
B - Habrough Road	0.40	6.51	0.7	A	311	467
C - A160 W	0.75	7.01	3.5	A	1516	2274
D - Ulceby Road	0.39	10.62	0.8	B	228	343
E - E Halton Road	0.45	9.91	1.0	A	317	476

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	803	201	311	2575	0.312	800	1198	0.0	0.8	3.613	A
B - Habrough Road	255	64	1013	1139	0.224	254	98	0.0	0.3	4.195	A
C - A160 W	1244	311	319	2521	0.493	1239	948	0.0	1.2	3.351	A
D - Ulceby Road	187	47	1448	1011	0.185	186	109	0.0	0.3	5.611	A
E - E Halton Road	260	65	1250	1106	0.235	259	385	0.0	0.4	5.462	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	959	240	372	2538	0.378	958	1434	0.8	1.1	4.063	A
B - Habrough Road	305	76	1213	1056	0.288	304	118	0.3	0.4	4.936	A
C - A160 W	1485	371	382	2484	0.598	1483	1136	1.2	1.8	4.297	A
D - Ulceby Road	224	56	1733	884	0.253	223	131	0.3	0.4	7.001	A
E - E Halton Road	311	78	1496	998	0.312	310	460	0.4	0.6	6.737	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1175	294	455	2489	0.472	1173	1753	1.1	1.6	4.876	A
B - Habrough Road	373	93	1484	945	0.395	372	144	0.4	0.7	6.474	A
C - A160 W	1819	455	467	2433	0.748	1812	1389	1.8	3.4	6.867	A
D - Ulceby Road	274	69	2119	714	0.384	273	160	0.4	0.8	10.477	B
E - E Halton Road	381	95	1828	851	0.447	379	563	0.6	1.0	9.781	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1175	294	457	2487	0.472	1175	1759	1.6	1.6	4.894	A
B - Habrough Road	373	93	1487	944	0.395	373	144	0.7	0.7	6.511	A
C - A160 W	1819	455	468	2433	0.748	1819	1393	3.4	3.5	7.015	A
D - Ulceby Road	274	69	2126	710	0.386	274	161	0.8	0.8	10.620	B
E - E Halton Road	381	95	1835	849	0.449	381	565	1.0	1.0	9.913	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	959	240	375	2536	0.378	961	1443	1.6	1.1	4.084	A
B - Habrough Road	305	76	1218	1054	0.289	306	118	0.7	0.4	4.969	A
C - A160 W	1485	371	383	2483	0.598	1492	1141	3.5	1.8	4.380	A
D - Ulceby Road	224	56	1743	880	0.254	225	132	0.8	0.4	7.094	A
E - E Halton Road	311	78	1506	994	0.313	313	463	1.0	0.6	6.827	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	803	201	313	2574	0.312	804	1206	1.1	0.8	3.632	A
B - Habrough Road	255	64	1019	1136	0.225	256	99	0.4	0.3	4.224	A
C - A160 W	1244	311	321	2519	0.494	1246	954	1.8	1.2	3.391	A
D - Ulceby Road	187	47	1457	1007	0.186	188	110	0.4	0.3	5.660	A
E - E Halton Road	260	65	1258	1103	0.236	261	387	0.6	0.4	5.514	A

2025 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	6.12	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.12	A

Traffic Demand

Demand Set 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	2025 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1580	100.000
B - Habrough Road		ONE HOUR	✓	124	100.000
C - A160 W		ONE HOUR	✓	1127	100.000
D - Ulceby Road		ONE HOUR	✓	169	100.000
E - E Halton Road		ONE HOUR	✓	453	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	24	120	1128	107	201
	B - Habrough Road	19	0	41	19	45
	C - A160 W	747	66	0	106	208
	D - Ulceby Road	54	16	61	0	38
	E - E Halton Road	61	115	241	36	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	1	30	42	59
	B - Habrough Road	6	0	0	0	2
	C - A160 W	78	5	0	32	37
	D - Ulceby Road	52	8	38	0	50
	E - E Halton Road	42	1	13	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.72	7.08	3.4	A	1450	2175
B - Habrough Road	0.18	6.04	0.2	A	114	171
C - A160 W	0.51	4.83	1.7	A	1034	1551
D - Ulceby Road	0.18	6.13	0.3	A	155	233
E - E Halton Road	0.42	5.97	0.8	A	416	624

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1190	297	401	2521	0.472	1185	679	0.0	1.2	3.536	A
B - Habrough Road	93	23	1348	1001	0.093	93	238	0.0	0.1	4.026	A
C - A160 W	848	212	338	2509	0.338	845	1103	0.0	0.8	3.407	A
D - Ulceby Road	127	32	982	1217	0.105	127	201	0.0	0.2	4.649	A
E - E Halton Road	341	85	740	1331	0.256	339	369	0.0	0.4	4.090	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1420	355	480	2473	0.574	1418	813	1.2	1.8	4.481	A
B - Habrough Road	111	28	1614	892	0.125	111	285	0.1	0.1	4.684	A
C - A160 W	1013	253	405	2470	0.410	1012	1320	0.8	1.1	3.891	A
D - Ulceby Road	152	38	1176	1131	0.134	152	241	0.2	0.2	5.178	A
E - E Halton Road	407	102	886	1266	0.322	407	442	0.4	0.5	4.719	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1740	435	588	2409	0.722	1733	995	1.8	3.3	6.951	A
B - Habrough Road	137	34	1973	745	0.183	136	348	0.1	0.2	6.010	A
C - A160 W	1241	310	495	2417	0.513	1239	1614	1.1	1.6	4.810	A
D - Ulceby Road	186	47	1439	1015	0.183	186	294	0.2	0.3	6.118	A
E - E Halton Road	499	125	1085	1179	0.423	498	540	0.5	0.8	5.948	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1740	435	589	2408	0.722	1739	996	3.3	3.4	7.084	A
B - Habrough Road	137	34	1979	742	0.184	137	349	0.2	0.2	6.041	A
C - A160 W	1241	310	497	2416	0.514	1241	1619	1.6	1.7	4.831	A
D - Ulceby Road	186	47	1442	1013	0.184	186	295	0.3	0.3	6.133	A
E - E Halton Road	499	125	1087	1178	0.423	499	542	0.8	0.8	5.975	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1420	355	482	2472	0.575	1427	815	3.4	1.8	4.561	A
B - Habrough Road	111	28	1623	888	0.126	112	286	0.2	0.1	4.713	A
C - A160 W	1013	253	407	2468	0.410	1015	1328	1.7	1.1	3.914	A
D - Ulceby Road	152	38	1181	1129	0.135	152	242	0.3	0.2	5.197	A
E - E Halton Road	407	102	889	1265	0.322	408	444	0.8	0.5	4.744	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1190	297	403	2519	0.472	1192	682	1.8	1.2	3.575	A
B - Habrough Road	93	23	1356	998	0.094	94	239	0.1	0.1	4.046	A
C - A160 W	848	212	340	2508	0.338	850	1110	1.1	0.8	3.425	A
D - Ulceby Road	127	32	988	1215	0.105	127	202	0.2	0.2	4.668	A
E - E Halton Road	341	85	744	1329	0.257	342	371	0.5	0.4	4.114	A

2025 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	11.45	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.45	B

Traffic Demand

Demand Set 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	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1208	100.000
B - Habrough Road		ONE HOUR	✓	345	100.000
C - A160 W		ONE HOUR	✓	1944	100.000
D - Ulceby Road		ONE HOUR	✓	249	100.000
E - E Halton Road		ONE HOUR	✓	375	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	2	32	1045	70	59
	B - Habrough Road	160	0	57	4	124
	C - A160 W	1476	41	0	60	367
	D - Ulceby Road	121	10	90	0	28
	E - E Halton Road	72	48	243	12	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	66	78	62	55
	B - Habrough Road	1	0	6	33	4
	C - A160 W	23	3	0	49	11
	D - Ulceby Road	35	13	22	0	32
	E - E Halton Road	39	7	26	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.54	5.55	2.0	A	1108	1663
B - Habrough Road	0.44	7.62	0.8	A	317	475
C - A160 W	0.88	14.75	8.4	B	1784	2676
D - Ulceby Road	0.48	15.88	1.2	C	228	343
E - E Halton Road	0.56	13.92	1.6	B	344	516

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	909	227	332	2562	0.355	906	1372	0.0	1.0	3.804	A
B - Habrough Road	260	65	1140	1086	0.239	258	98	0.0	0.3	4.479	A
C - A160 W	1464	366	323	2518	0.581	1457	1075	0.0	1.7	4.070	A
D - Ulceby Road	187	47	1670	912	0.205	186	109	0.0	0.3	6.369	A
E - E Halton Road	282	71	1423	1030	0.274	280	433	0.0	0.5	6.003	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1086	271	398	2523	0.430	1085	1642	1.0	1.3	4.386	A
B - Habrough Road	310	78	1365	994	0.312	310	117	0.3	0.5	5.421	A
C - A160 W	1748	437	387	2480	0.705	1743	1288	1.7	2.8	5.854	A
D - Ulceby Road	224	56	1999	767	0.292	223	131	0.3	0.5	8.512	A
E - E Halton Road	337	84	1703	907	0.372	336	518	0.5	0.7	7.890	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1330	333	485	2470	0.538	1327	1998	1.3	2.0	5.510	A
B - Habrough Road	380	95	1669	869	0.437	379	143	0.5	0.8	7.548	A
C - A160 W	2140	535	473	2430	0.881	2120	1574	2.8	8.0	13.229	B
D - Ulceby Road	274	69	2433	574	0.478	272	160	0.5	1.1	15.201	C
E - E Halton Road	413	103	2073	744	0.555	410	632	0.7	1.5	13.379	B

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1330	333	489	2468	0.539	1330	2014	2.0	2.0	5.547	A
B - Habrough Road	380	95	1674	867	0.438	380	144	0.8	0.8	7.622	A
C - A160 W	2140	535	474	2429	0.881	2139	1580	8.0	8.4	14.746	B
D - Ulceby Road	274	69	2452	565	0.485	274	161	1.1	1.2	15.876	C
E - E Halton Road	413	103	2090	736	0.561	413	636	1.5	1.6	13.923	B

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1086	271	403	2520	0.431	1089	1665	2.0	1.3	4.423	A
B - Habrough Road	310	78	1373	991	0.313	311	119	0.8	0.5	5.479	A
C - A160 W	1748	437	389	2479	0.705	1769	1296	8.4	2.9	6.304	A
D - Ulceby Road	224	56	2026	755	0.297	226	132	1.2	0.6	8.815	A
E - E Halton Road	337	84	1728	896	0.376	340	525	1.6	0.8	8.164	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	909	227	336	2560	0.355	911	1383	1.3	1.0	3.831	A
B - Habrough Road	260	65	1148	1083	0.240	260	99	0.5	0.3	4.516	A
C - A160 W	1464	366	325	2517	0.582	1469	1083	2.9	1.7	4.164	A
D - Ulceby Road	187	47	1684	906	0.207	188	110	0.6	0.3	6.460	A
E - E Halton Road	282	71	1435	1025	0.276	283	436	0.8	0.5	6.095	A

2025 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	10.49	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.49	B

Traffic Demand

Demand Set 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	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1845	100.000
B - Habrough Road		ONE HOUR	✓	126	100.000
C - A160 W		ONE HOUR	✓	1348	100.000
D - Ulceby Road		ONE HOUR	✓	169	100.000
E - E Halton Road		ONE HOUR	✓	548	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	24	125	1388	107	201
	B - Habrough Road	21	0	41	19	45
	C - A160 W	936	66	0	106	240
	D - Ulceby Road	54	16	61	0	38
	E - E Halton Road	61	115	336	36	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	1	31	42	59
	B - Habrough Road	5	0	0	0	2
	C - A160 W	75	5	0	32	30
	D - Ulceby Road	52	7	38	0	50
	E - E Halton Road	42	1	9	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.87	14.88	8.1	B	1693	2540
B - Habrough Road	0.24	8.24	0.3	A	116	173
C - A160 W	0.61	6.04	2.5	A	1237	1855
D - Ulceby Road	0.21	7.05	0.4	A	155	233
E - E Halton Road	0.56	8.23	1.4	A	503	754

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1389	347	472	2478	0.560	1382	822	0.0	1.7	4.313	A
B - Habrough Road	95	24	1613	892	0.106	94	241	0.0	0.1	4.577	A
C - A160 W	1015	254	339	2508	0.405	1011	1368	0.0	1.1	3.745	A
D - Ulceby Road	127	32	1149	1143	0.111	127	201	0.0	0.2	4.982	A
E - E Halton Road	413	103	883	1268	0.325	410	393	0.0	0.5	4.622	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1659	415	565	2422	0.685	1654	984	1.7	2.8	6.152	A
B - Habrough Road	113	28	1930	762	0.149	113	289	0.1	0.2	5.631	A
C - A160 W	1212	303	406	2469	0.491	1210	1637	1.1	1.5	4.462	A
D - Ulceby Road	152	38	1376	1043	0.146	152	240	0.2	0.2	5.686	A
E - E Halton Road	493	123	1057	1191	0.414	492	470	0.5	0.8	5.671	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	2031	508	691	2347	0.866	2012	1203	2.8	7.7	13.488	B
B - Habrough Road	139	35	2351	590	0.235	138	352	0.2	0.3	8.085	A
C - A160 W	1484	371	495	2417	0.614	1480	1994	1.5	2.4	5.984	A
D - Ulceby Road	186	47	1682	907	0.205	186	293	0.2	0.4	7.019	A
E - E Halton Road	603	151	1293	1087	0.555	601	574	0.8	1.3	8.134	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	2031	508	694	2345	0.866	2030	1207	7.7	8.1	14.882	B
B - Habrough Road	139	35	2369	582	0.238	139	354	0.3	0.3	8.243	A
C - A160 W	1484	371	498	2415	0.615	1484	2009	2.4	2.5	6.043	A
D - Ulceby Road	186	47	1688	905	0.206	186	295	0.4	0.4	7.053	A
E - E Halton Road	603	151	1297	1086	0.556	603	577	1.3	1.4	8.233	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1659	415	569	2420	0.685	1679	989	8.1	2.9	6.585	A
B - Habrough Road	113	28	1956	751	0.151	114	292	0.3	0.2	5.738	A
C - A160 W	1212	303	411	2466	0.491	1216	1659	2.5	1.5	4.512	A
D - Ulceby Road	152	38	1384	1039	0.146	152	243	0.4	0.2	5.719	A
E - E Halton Road	493	123	1063	1189	0.414	495	474	1.4	0.8	5.745	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1389	347	475	2476	0.561	1394	827	2.9	1.7	4.414	A
B - Habrough Road	95	24	1626	887	0.107	95	243	0.2	0.1	4.619	A
C - A160 W	1015	254	342	2507	0.405	1017	1379	1.5	1.1	3.779	A
D - Ulceby Road	127	32	1157	1140	0.112	127	202	0.2	0.2	5.006	A
E - E Halton Road	413	103	889	1265	0.326	414	395	0.8	0.5	4.669	A

2025 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	12.25	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.25	B

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1224	100.000
B - Habrough Road		ONE HOUR	✓	345	100.000
C - A160 W		ONE HOUR	✓	1968	100.000
D - Ulceby Road		ONE HOUR	✓	249	100.000
E - E Halton Road		ONE HOUR	✓	375	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	2	34	1059	70	59
	B - Habrough Road	160	0	57	4	124
	C - A160 W	1500	41	0	60	367
	D - Ulceby Road	121	10	90	0	28
	E - E Halton Road	72	48	243	12	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	60	78	62	55
	B - Habrough Road	1	0	6	33	4
	C - A160 W	24	3	0	49	11
	D - Ulceby Road	35	13	22	0	32
	E - E Halton Road	39	7	26	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.55	5.63	2.1	A	1123	1685
B - Habrough Road	0.44	7.72	0.8	A	317	475
C - A160 W	0.89	16.20	9.3	C	1806	2709
D - Ulceby Road	0.49	16.52	1.2	C	228	343
E - E Halton Road	0.57	14.43	1.6	B	344	516

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	921	230	332	2562	0.360	918	1390	0.0	1.0	3.826	A
B - Habrough Road	260	65	1150	1082	0.240	258	100	0.0	0.3	4.508	A
C - A160 W	1482	370	323	2518	0.588	1475	1086	0.0	1.7	4.163	A
D - Ulceby Road	187	47	1688	904	0.207	186	109	0.0	0.3	6.439	A
E - E Halton Road	282	71	1441	1022	0.276	280	433	0.0	0.5	6.067	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1100	275	398	2523	0.436	1099	1663	1.0	1.3	4.426	A
B - Habrough Road	310	78	1377	989	0.314	310	119	0.3	0.5	5.462	A
C - A160 W	1769	442	387	2480	0.713	1764	1300	1.7	3.0	6.062	A
D - Ulceby Road	224	56	2020	757	0.296	223	131	0.3	0.5	8.661	A
E - E Halton Road	337	84	1725	897	0.376	336	518	0.5	0.7	8.022	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1348	337	485	2471	0.545	1345	2022	1.3	2.1	5.588	A
B - Habrough Road	380	95	1684	863	0.440	379	145	0.5	0.8	7.643	A
C - A160 W	2167	542	473	2430	0.892	2144	1590	3.0	8.7	14.266	B
D - Ulceby Road	274	69	2457	563	0.487	272	160	0.5	1.2	15.736	C
E - E Halton Road	413	103	2097	733	0.563	410	631	0.7	1.6	13.803	B

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1348	337	489	2468	0.546	1348	2040	2.1	2.1	5.628	A
B - Habrough Road	380	95	1690	861	0.441	380	146	0.8	0.8	7.721	A
C - A160 W	2167	542	474	2429	0.892	2165	1595	8.7	9.3	16.203	C
D - Ulceby Road	274	69	2478	554	0.495	274	161	1.2	1.2	16.521	C
E - E Halton Road	413	103	2116	725	0.570	413	636	1.6	1.6	14.431	B

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1100	275	403	2519	0.437	1103	1689	2.1	1.4	4.465	A
B - Habrough Road	310	78	1386	985	0.315	311	121	0.8	0.5	5.520	A
C - A160 W	1769	442	389	2479	0.714	1794	1308	9.3	3.1	6.604	A
D - Ulceby Road	224	56	2051	744	0.301	227	132	1.2	0.6	9.006	A
E - E Halton Road	337	84	1752	885	0.381	340	525	1.6	0.8	8.331	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	921	230	336	2560	0.360	923	1402	1.4	1.0	3.858	A
B - Habrough Road	260	65	1158	1079	0.241	260	100	0.5	0.3	4.541	A
C - A160 W	1482	370	325	2517	0.589	1487	1093	3.1	1.8	4.267	A
D - Ulceby Road	187	47	1702	898	0.209	188	110	0.6	0.3	6.533	A
E - E Halton Road	282	71	1454	1017	0.278	284	437	0.8	0.5	6.163	A

2025 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	11.16	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.16	B

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1866	100.000
B - Habrough Road		ONE HOUR	✓	126	100.000
C - A160 W		ONE HOUR	✓	1381	100.000
D - Ulceby Road		ONE HOUR	✓	169	100.000
E - E Halton Road		ONE HOUR	✓	548	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	24	126	1408	107	201
	B - Habrough Road	21	0	41	19	45
	C - A160 W	969	66	0	106	240
	D - Ulceby Road	54	16	61	0	38
	E - E Halton Road	61	115	336	36	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	1	32	42	59
	B - Habrough Road	5	0	0	0	2
	C - A160 W	75	5	0	32	30
	D - Ulceby Road	52	7	38	0	50
	E - E Halton Road	42	1	9	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.88	16.07	8.8	C	1712	2568
B - Habrough Road	0.24	8.41	0.3	A	116	173
C - A160 W	0.63	6.30	2.6	A	1267	1901
D - Ulceby Road	0.21	7.21	0.4	A	155	233
E - E Halton Road	0.56	8.52	1.4	A	503	754

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1405	351	472	2478	0.567	1398	846	0.0	1.7	4.370	A
B - Habrough Road	95	24	1628	886	0.107	94	242	0.0	0.1	4.612	A
C - A160 W	1040	260	339	2508	0.414	1035	1383	0.0	1.1	3.817	A
D - Ulceby Road	127	32	1174	1133	0.112	127	201	0.0	0.2	5.036	A
E - E Halton Road	413	103	908	1257	0.328	410	393	0.0	0.5	4.681	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1677	419	565	2422	0.693	1673	1013	1.7	2.9	6.335	A
B - Habrough Road	113	28	1948	755	0.150	113	290	0.1	0.2	5.694	A
C - A160 W	1241	310	406	2469	0.503	1240	1655	1.1	1.6	4.581	A
D - Ulceby Road	152	38	1405	1030	0.148	152	240	0.2	0.2	5.771	A
E - E Halton Road	493	123	1087	1178	0.418	492	470	0.5	0.8	5.778	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	2055	514	691	2347	0.876	2033	1239	2.9	8.3	14.357	B
B - Habrough Road	139	35	2371	581	0.239	138	353	0.2	0.3	8.238	A
C - A160 W	1521	380	494	2417	0.629	1516	2014	1.6	2.6	6.234	A
D - Ulceby Road	186	47	1717	891	0.209	186	293	0.2	0.4	7.177	A
E - E Halton Road	603	151	1329	1071	0.563	601	574	0.8	1.4	8.401	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	2055	514	694	2345	0.876	2053	1243	8.3	8.8	16.067	C
B - Habrough Road	139	35	2391	573	0.242	139	355	0.3	0.3	8.412	A
C - A160 W	1521	380	498	2415	0.630	1520	2031	2.6	2.6	6.304	A
D - Ulceby Road	186	47	1724	889	0.209	186	295	0.4	0.4	7.214	A
E - E Halton Road	603	151	1333	1070	0.564	603	577	1.4	1.4	8.516	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1677	419	569	2420	0.693	1700	1019	8.8	3.1	6.845	A
B - Habrough Road	113	28	1977	743	0.152	114	293	0.3	0.2	5.814	A
C - A160 W	1241	310	412	2466	0.504	1246	1679	2.6	1.6	4.639	A
D - Ulceby Road	152	38	1415	1026	0.148	152	243	0.4	0.2	5.809	A
E - E Halton Road	493	123	1093	1176	0.419	495	475	1.4	0.8	5.859	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1405	351	475	2476	0.567	1410	852	3.1	1.8	4.505	A
B - Habrough Road	95	24	1642	880	0.108	95	244	0.2	0.1	4.656	A
C - A160 W	1040	260	342	2507	0.415	1042	1395	1.6	1.1	3.854	A
D - Ulceby Road	127	32	1182	1129	0.113	127	202	0.2	0.2	5.061	A
E - E Halton Road	413	103	913	1254	0.329	414	396	0.8	0.5	4.731	A

2032 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	8.32	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.32	A

Traffic Demand

Demand Set 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	2032 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1138	100.000
B - Habrough Road		ONE HOUR	✓	362	100.000
C - A160 W		ONE HOUR	✓	1761	100.000
D - Ulceby Road		ONE HOUR	✓	264	100.000
E - E Halton Road		ONE HOUR	✓	369	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	3	34	964	74	63
	B - Habrough Road	164	0	61	5	132
	C - A160 W	1331	44	0	64	322
	D - Ulceby Road	128	10	96	0	30
	E - E Halton Road	77	51	228	13	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	69	82	62	55
	B - Habrough Road	1	0	6	33	4
	C - A160 W	21	3	0	49	13
	D - Ulceby Road	35	13	22	0	32
	E - E Halton Road	39	7	32	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.51	5.28	1.8	A	1044	1566
B - Habrough Road	0.44	7.37	0.8	A	332	498
C - A160 W	0.80	9.04	4.8	A	1616	2424
D - Ulceby Road	0.45	12.96	1.0	B	242	363
E - E Halton Road	0.51	11.90	1.3	B	339	508

Main Results for each time segment
06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	857	214	331	2563	0.334	853	1276	0.0	0.9	3.749	A
B - Habrough Road	273	68	1080	1111	0.245	271	104	0.0	0.3	4.418	A
C - A160 W	1326	331	340	2508	0.529	1320	1011	0.0	1.3	3.614	A
D - Ulceby Road	199	50	1544	969	0.205	197	117	0.0	0.3	6.001	A
E - E Halton Road	278	69	1331	1071	0.260	276	410	0.0	0.4	5.824	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1023	256	396	2524	0.405	1022	1528	0.9	1.2	4.274	A
B - Habrough Road	325	81	1293	1023	0.318	325	125	0.3	0.5	5.316	A
C - A160 W	1583	396	407	2468	0.641	1580	1211	1.3	2.1	4.835	A
D - Ulceby Road	237	59	1847	834	0.285	237	140	0.3	0.5	7.751	A
E - E Halton Road	332	83	1593	955	0.347	331	491	0.4	0.7	7.418	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1253	313	484	2471	0.507	1251	1865	1.2	1.8	5.252	A
B - Habrough Road	399	100	1582	905	0.440	397	152	0.5	0.8	7.301	A
C - A160 W	1939	485	498	2415	0.803	1929	1481	2.1	4.7	8.692	A
D - Ulceby Road	291	73	2256	653	0.445	289	171	0.5	1.0	12.663	B
E - E Halton Road	406	102	1945	800	0.508	404	600	0.7	1.3	11.629	B

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1253	313	487	2470	0.507	1253	1875	1.8	1.8	5.280	A
B - Habrough Road	399	100	1586	903	0.441	399	153	0.8	0.8	7.365	A
C - A160 W	1939	485	500	2414	0.803	1938	1485	4.7	4.8	9.044	A
D - Ulceby Road	291	73	2267	648	0.449	291	172	1.0	1.0	12.961	B
E - E Halton Road	406	102	1955	796	0.511	406	602	1.3	1.3	11.896	B

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1023	256	400	2521	0.406	1025	1541	1.8	1.2	4.302	A
B - Habrough Road	325	81	1300	1021	0.319	327	126	0.8	0.5	5.365	A
C - A160 W	1583	396	410	2467	0.642	1593	1217	4.8	2.2	4.991	A
D - Ulceby Road	237	59	1862	827	0.287	239	141	1.0	0.5	7.909	A
E - E Halton Road	332	83	1607	949	0.350	334	494	1.3	0.7	7.575	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	857	214	334	2561	0.335	858	1285	1.2	0.9	3.777	A
B - Habrough Road	273	68	1087	1108	0.246	273	105	0.5	0.3	4.454	A
C - A160 W	1326	331	342	2507	0.529	1329	1018	2.2	1.4	3.673	A
D - Ulceby Road	199	50	1554	964	0.206	200	118	0.5	0.3	6.067	A
E - E Halton Road	278	69	1341	1066	0.261	279	413	0.7	0.5	5.897	A

2032 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	7.20	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.20	A

Traffic Demand

Demand Set 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	2032 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1682	100.000
B - Habrough Road		ONE HOUR	✓	131	100.000
C - A160 W		ONE HOUR	✓	1199	100.000
D - Ulceby Road		ONE HOUR	✓	180	100.000
E - E Halton Road		ONE HOUR	✓	482	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	26	128	1201	114	213
	B - Habrough Road	20	0	43	20	48
	C - A160 W	795	70	0	113	221
	D - Ulceby Road	58	17	65	0	40
	E - E Halton Road	65	123	256	38	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	1	30	42	59
	B - Habrough Road	6	0	0	0	2
	C - A160 W	78	5	0	32	37
	D - Ulceby Road	52	7	38	0	50
	E - E Halton Road	42	1	13	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.78	8.86	4.5	A	1543	2315
B - Habrough Road	0.21	6.70	0.3	A	120	180
C - A160 W	0.55	5.27	1.9	A	1100	1650
D - Ulceby Road	0.20	6.54	0.4	A	165	248
E - E Halton Road	0.46	6.58	1.0	A	442	663

Main Results for each time segment
15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1266	317	426	2506	0.505	1261	723	0.0	1.3	3.792	A
B - Habrough Road	99	25	1434	966	0.102	98	253	0.0	0.1	4.215	A
C - A160 W	903	226	359	2497	0.362	899	1173	0.0	0.9	3.546	A
D - Ulceby Road	136	34	1045	1190	0.114	135	214	0.0	0.2	4.802	A
E - E Halton Road	363	91	788	1310	0.277	361	391	0.0	0.4	4.272	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1512	378	511	2455	0.616	1509	865	1.3	2.1	4.993	A
B - Habrough Road	118	29	1716	850	0.139	118	303	0.1	0.2	4.994	A
C - A160 W	1078	269	430	2455	0.439	1077	1404	0.9	1.2	4.114	A
D - Ulceby Road	162	40	1251	1099	0.147	162	256	0.2	0.2	5.409	A
E - E Halton Road	433	108	944	1241	0.349	433	469	0.4	0.6	5.016	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1852	463	625	2386	0.776	1843	1059	2.1	4.4	8.572	A
B - Habrough Road	144	36	2097	694	0.208	144	371	0.2	0.3	6.648	A
C - A160 W	1320	330	525	2399	0.550	1317	1715	1.2	1.9	5.237	A
D - Ulceby Road	198	50	1530	975	0.203	198	313	0.2	0.4	6.520	A
E - E Halton Road	531	133	1155	1148	0.462	529	573	0.6	1.0	6.544	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1852	463	626	2385	0.776	1852	1061	4.4	4.5	8.858	A
B - Habrough Road	144	36	2106	690	0.209	144	372	0.3	0.3	6.701	A
C - A160 W	1320	330	527	2398	0.551	1320	1723	1.9	1.9	5.269	A
D - Ulceby Road	198	50	1534	973	0.204	198	314	0.4	0.4	6.542	A
E - E Halton Road	531	133	1157	1147	0.463	531	575	1.0	1.0	6.584	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1512	378	513	2454	0.616	1521	869	4.5	2.1	5.134	A
B - Habrough Road	118	29	1729	844	0.139	118	305	0.3	0.2	5.040	A
C - A160 W	1078	269	433	2453	0.439	1081	1415	1.9	1.2	4.144	A
D - Ulceby Road	162	40	1256	1096	0.148	162	257	0.4	0.2	5.433	A
E - E Halton Road	433	108	947	1240	0.350	435	471	1.0	0.6	5.054	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1266	317	429	2504	0.506	1269	727	2.1	1.4	3.849	A
B - Habrough Road	99	25	1444	962	0.103	99	255	0.2	0.1	4.241	A
C - A160 W	903	226	361	2495	0.362	904	1181	1.2	0.9	3.570	A
D - Ulceby Road	136	34	1051	1187	0.114	136	215	0.2	0.2	4.822	A
E - E Halton Road	363	91	793	1308	0.277	364	394	0.6	0.4	4.302	A

2032 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	17.46	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	17.46	C

Traffic Demand

Demand Set 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	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1278	100.000
B - Habrough Road		ONE HOUR	✓	368	100.000
C - A160 W		ONE HOUR	✓	2053	100.000
D - Ulceby Road		ONE HOUR	✓	264	100.000
E - E Halton Road		ONE HOUR	✓	398	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	3	34	1104	74	63
	B - Habrough Road	170	0	61	5	132
	C - A160 W	1558	44	0	64	387
	D - Ulceby Road	128	10	96	0	30
	E - E Halton Road	77	51	257	13	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	66	78	62	55
	B - Habrough Road	1	0	6	33	4
	C - A160 W	23	3	0	49	11
	D - Ulceby Road	35	13	22	0	32
	E - E Halton Road	39	7	26	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.57	6.05	2.3	A	1173	1759
B - Habrough Road	0.49	8.80	1.0	A	338	507
C - A160 W	0.94	25.47	15.0	D	1884	2826
D - Ulceby Road	0.58	21.46	1.7	C	242	363
E - E Halton Road	0.64	18.15	2.1	C	365	548

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	962	241	352	2550	0.377	958	1450	0.0	1.1	3.956	A
B - Habrough Road	277	69	1206	1059	0.262	276	104	0.0	0.4	4.733	A
C - A160 W	1546	386	345	2505	0.617	1538	1137	0.0	1.9	4.458	A
D - Ulceby Road	199	50	1766	870	0.228	197	117	0.0	0.4	6.872	A
E - E Halton Road	300	75	1504	994	0.301	297	458	0.0	0.5	6.454	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1149	287	422	2508	0.458	1147	1735	1.1	1.5	4.633	A
B - Habrough Road	331	83	1444	961	0.344	330	125	0.4	0.5	5.880	A
C - A160 W	1846	461	413	2465	0.749	1839	1362	1.9	3.5	6.872	A
D - Ulceby Road	237	59	2112	716	0.331	236	140	0.4	0.6	9.633	A
E - E Halton Road	358	89	1800	864	0.414	356	549	0.5	0.9	8.861	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1407	352	513	2454	0.573	1404	2099	1.5	2.3	5.994	A
B - Habrough Road	405	101	1765	830	0.488	403	151	0.5	1.0	8.677	A
C - A160 W	2260	565	505	2411	0.938	2222	1664	3.5	13.2	19.819	C
D - Ulceby Road	291	73	2556	520	0.559	287	170	0.6	1.6	19.616	C
E - E Halton Road	438	110	2178	698	0.628	434	665	0.9	2.0	16.793	C

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1407	352	518	2451	0.574	1407	2126	2.3	2.3	6.050	A
B - Habrough Road	405	101	1772	827	0.490	405	153	1.0	1.0	8.805	A
C - A160 W	2260	565	506	2410	0.938	2253	1671	13.2	15.0	25.465	D
D - Ulceby Road	291	73	2588	505	0.575	290	172	1.6	1.7	21.458	C
E - E Halton Road	438	110	2206	685	0.639	438	672	2.0	2.1	18.146	C

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1149	287	430	2504	0.459	1152	1778	2.3	1.5	4.684	A
B - Habrough Road	331	83	1455	957	0.346	333	127	1.0	0.6	5.966	A
C - A160 W	1846	461	415	2464	0.749	1891	1372	15.0	3.7	8.155	A
D - Ulceby Road	237	59	2164	693	0.342	241	142	1.7	0.7	10.342	B
E - E Halton Road	358	89	1846	844	0.424	363	560	2.1	0.9	9.462	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	962	241	356	2548	0.378	964	1464	1.5	1.1	3.993	A
B - Habrough Road	277	69	1215	1055	0.263	278	105	0.6	0.4	4.783	A
C - A160 W	1546	386	347	2504	0.617	1553	1146	3.7	2.0	4.600	A
D - Ulceby Road	199	50	1782	863	0.230	200	118	0.7	0.4	7.001	A
E - E Halton Road	300	75	1519	988	0.303	301	463	0.9	0.6	6.586	A

2032 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	15.26	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	15.26	C

Traffic Demand

Demand Set 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	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1947	100.000
B - Habrough Road		ONE HOUR	✓	133	100.000
C - A160 W		ONE HOUR	✓	1420	100.000
D - Ulceby Road		ONE HOUR	✓	180	100.000
E - E Halton Road		ONE HOUR	✓	578	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	26	133	1461	114	213
	B - Habrough Road	22	0	43	20	48
	C - A160 W	984	70	0	113	253
	D - Ulceby Road	58	17	65	0	40
	E - E Halton Road	65	123	352	38	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	1	31	42	59
	B - Habrough Road	5	0	0	0	2
	C - A160 W	75	5	0	32	30
	D - Ulceby Road	52	7	38	0	50
	E - E Halton Road	42	1	9	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.92	24.29	13.6	C	1787	2680
B - Habrough Road	0.28	9.50	0.4	A	122	183
C - A160 W	0.65	6.74	2.9	A	1303	1955
D - Ulceby Road	0.23	7.61	0.4	A	165	248
E - E Halton Road	0.60	9.49	1.7	A	530	796

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1466	366	498	2463	0.595	1458	866	0.0	1.9	4.698	A
B - Habrough Road	100	25	1699	857	0.117	100	257	0.0	0.1	4.823	A
C - A160 W	1069	267	360	2496	0.428	1064	1439	0.0	1.2	3.915	A
D - Ulceby Road	136	34	1211	1116	0.121	135	214	0.0	0.2	5.159	A
E - E Halton Road	435	109	931	1247	0.349	433	415	0.0	0.6	4.866	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1750	438	597	2403	0.728	1744	1037	1.9	3.4	7.145	A
B - Habrough Road	120	30	2033	720	0.166	119	308	0.1	0.2	6.083	A
C - A160 W	1277	319	431	2454	0.520	1274	1721	1.2	1.7	4.756	A
D - Ulceby Road	162	40	1450	1010	0.160	162	256	0.2	0.3	5.973	A
E - E Halton Road	520	130	1115	1166	0.446	518	497	0.6	0.9	6.124	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	2144	536	729	2324	0.922	2109	1267	3.4	12.2	19.560	C
B - Habrough Road	146	37	2463	543	0.270	146	374	0.2	0.4	9.179	A
C - A160 W	1563	391	523	2400	0.651	1559	2087	1.7	2.9	6.643	A
D - Ulceby Road	198	50	1770	868	0.228	198	311	0.3	0.4	7.555	A
E - E Halton Road	636	159	1363	1057	0.602	633	605	0.9	1.6	9.321	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	2144	536	732	2322	0.923	2138	1271	12.2	13.6	24.293	C
B - Habrough Road	146	37	2493	531	0.276	146	377	0.4	0.4	9.496	A
C - A160 W	1563	391	529	2397	0.652	1563	2111	2.9	2.9	6.742	A
D - Ulceby Road	198	50	1778	864	0.229	198	313	0.4	0.4	7.608	A
E - E Halton Road	636	159	1367	1055	0.603	636	609	1.6	1.7	9.490	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1750	438	601	2401	0.729	1790	1043	13.6	3.7	8.267	A
B - Habrough Road	120	30	2079	701	0.171	120	312	0.4	0.2	6.299	A
C - A160 W	1277	319	440	2449	0.521	1281	1759	2.9	1.7	4.836	A
D - Ulceby Road	162	40	1462	1005	0.161	162	259	0.4	0.3	6.023	A
E - E Halton Road	520	130	1121	1163	0.447	523	504	1.7	0.9	6.233	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1466	366	502	2460	0.596	1473	871	3.7	2.0	4.845	A
B - Habrough Road	100	25	1715	850	0.118	100	259	0.2	0.1	4.877	A
C - A160 W	1069	267	364	2494	0.429	1071	1452	1.7	1.2	3.957	A
D - Ulceby Road	136	34	1220	1112	0.122	136	215	0.3	0.2	5.193	A
E - E Halton Road	435	109	937	1244	0.350	436	418	0.9	0.6	4.926	A

2032 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	19.37	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	19.37	C

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1294	100.000
B - Habrough Road		ONE HOUR	✓	368	100.000
C - A160 W		ONE HOUR	✓	2078	100.000
D - Ulceby Road		ONE HOUR	✓	264	100.000
E - E Halton Road		ONE HOUR	✓	398	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	3	36	1118	74	63
	B - Habrough Road	170	0	61	5	132
	C - A160 W	1583	44	0	64	387
	D - Ulceby Road	128	10	96	0	30
	E - E Halton Road	77	51	257	13	0

Vehicle Mix

HV %s

		To				
From		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
	A - A160 E	100	60	78	62	55
	B - Habrough Road	1	0	6	33	4
	C - A160 W	23	3	0	49	11
	D - Ulceby Road	35	13	22	0	32
	E - E Halton Road	39	7	26	22	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.58	6.15	2.4	A	1187	1781
B - Habrough Road	0.49	8.94	1.0	A	338	507
C - A160 W	0.95	29.12	17.4	D	1907	2860
D - Ulceby Road	0.59	22.59	1.8	C	242	363
E - E Halton Road	0.65	18.98	2.2	C	365	548

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	974	244	352	2550	0.382	970	1468	0.0	1.1	3.982	A
B - Habrough Road	277	69	1216	1055	0.263	276	106	0.0	0.4	4.759	A
C - A160 W	1564	391	345	2505	0.624	1557	1147	0.0	2.0	4.544	A
D - Ulceby Road	199	50	1784	862	0.231	197	117	0.0	0.4	6.958	A
E - E Halton Road	300	75	1523	986	0.304	297	458	0.0	0.5	6.531	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1163	291	422	2508	0.464	1162	1757	1.1	1.5	4.678	A
B - Habrough Road	331	83	1457	956	0.346	330	126	0.4	0.5	5.928	A
C - A160 W	1868	467	413	2465	0.758	1861	1374	2.0	3.7	7.118	A
D - Ulceby Road	237	59	2134	707	0.336	236	140	0.4	0.6	9.832	A
E - E Halton Road	358	89	1822	854	0.419	356	548	0.5	0.9	9.033	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1425	356	512	2454	0.581	1421	2121	1.5	2.4	6.087	A
B - Habrough Road	405	101	1780	824	0.492	403	153	0.5	1.0	8.804	A
C - A160 W	2288	572	504	2411	0.949	2243	1679	3.7	14.9	21.686	C
D - Ulceby Road	291	73	2577	510	0.570	287	170	0.6	1.6	20.411	C
E - E Halton Road	438	110	2200	688	0.637	433	664	0.9	2.1	17.407	C

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1425	356	518	2451	0.581	1425	2151	2.4	2.4	6.147	A
B - Habrough Road	405	101	1787	821	0.494	405	155	1.0	1.0	8.938	A
C - A160 W	2288	572	506	2410	0.949	2278	1686	14.9	17.4	29.119	D
D - Ulceby Road	291	73	2613	494	0.588	290	171	1.6	1.8	22.588	C
E - E Halton Road	438	110	2231	674	0.650	438	672	2.1	2.2	18.981	C

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1163	291	430	2503	0.465	1167	1808	2.4	1.5	4.732	A
B - Habrough Road	331	83	1468	952	0.348	333	129	1.0	0.6	6.018	A
C - A160 W	1868	467	416	2463	0.758	1922	1385	17.4	3.9	8.782	A
D - Ulceby Road	237	59	2195	680	0.349	242	142	1.8	0.7	10.678	B
E - E Halton Road	358	89	1875	831	0.431	363	561	2.2	1.0	9.737	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	974	244	357	2548	0.382	976	1483	1.5	1.1	4.018	A
B - Habrough Road	277	69	1226	1051	0.264	278	107	0.6	0.4	4.811	A
C - A160 W	1564	391	347	2504	0.625	1572	1157	3.9	2.0	4.700	A
D - Ulceby Road	199	50	1801	854	0.233	200	118	0.7	0.4	7.098	A
E - E Halton Road	300	75	1539	979	0.306	301	463	1.0	0.6	6.671	A

2032 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	16.67	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	16.67	C

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160 E		ONE HOUR	✓	1968	100.000
B - Habrough Road		ONE HOUR	✓	133	100.000
C - A160 W		ONE HOUR	✓	1453	100.000
D - Ulceby Road		ONE HOUR	✓	180	100.000
E - E Halton Road		ONE HOUR	✓	578	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	26	134	1481	114	213
	B - Habrough Road	22	0	43	20	48
	C - A160 W	1017	70	0	113	253
	D - Ulceby Road	58	17	65	0	40
	E - E Halton Road	65	123	352	38	0

Vehicle Mix

HV %s

		To				
		A - A160 E	B - Habrough Road	C - A160 W	D - Ulceby Road	E - E Halton Road
From	A - A160 E	100	1	32	42	59
	B - Habrough Road	5	0	0	0	2
	C - A160 W	75	5	0	32	30
	D - Ulceby Road	52	7	38	0	50
	E - E Halton Road	42	1	9	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160 E	0.93	27.05	15.3	D	1806	2709
B - Habrough Road	0.28	9.71	0.4	A	122	183
C - A160 W	0.67	7.06	3.1	A	1333	2000
D - Ulceby Road	0.23	7.80	0.4	A	165	248
E - E Halton Road	0.61	9.87	1.7	A	530	796

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1482	370	498	2463	0.602	1474	890	0.0	2.0	4.796	A
B - Habrough Road	100	25	1714	851	0.118	100	258	0.0	0.1	4.862	A
C - A160 W	1094	273	360	2496	0.438	1089	1453	0.0	1.2	3.992	A
D - Ulceby Road	136	34	1236	1105	0.123	135	213	0.0	0.2	5.220	A
E - E Halton Road	435	109	955	1236	0.352	433	415	0.0	0.6	4.932	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1769	442	597	2403	0.736	1763	1066	2.0	3.6	7.386	A
B - Habrough Road	120	30	2051	713	0.168	119	308	0.1	0.2	6.157	A
C - A160 W	1306	327	431	2454	0.532	1304	1739	1.2	1.8	4.891	A
D - Ulceby Road	162	40	1479	997	0.162	162	256	0.2	0.3	6.067	A
E - E Halton Road	520	130	1144	1153	0.451	518	497	0.6	0.9	6.250	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	2167	542	729	2324	0.932	2128	1303	3.6	13.4	21.090	C
B - Habrough Road	146	37	2481	536	0.273	146	375	0.2	0.4	9.349	A
C - A160 W	1600	400	522	2401	0.666	1595	2105	1.8	3.1	6.947	A
D - Ulceby Road	198	50	1806	852	0.233	198	311	0.3	0.4	7.736	A
E - E Halton Road	636	159	1399	1041	0.612	633	604	0.9	1.7	9.672	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	2167	542	732	2322	0.933	2159	1308	13.4	15.3	27.046	D
B - Habrough Road	146	37	2513	523	0.280	146	378	0.4	0.4	9.708	A
C - A160 W	1600	400	528	2397	0.667	1600	2131	3.1	3.1	7.063	A
D - Ulceby Road	198	50	1814	848	0.234	198	313	0.4	0.4	7.796	A
E - E Halton Road	636	159	1404	1039	0.613	636	609	1.7	1.7	9.865	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1769	442	601	2401	0.737	1815	1073	15.3	3.8	8.766	A
B - Habrough Road	120	30	2103	691	0.173	120	313	0.4	0.2	6.407	A
C - A160 W	1306	327	441	2448	0.534	1311	1782	3.1	1.8	4.979	A
D - Ulceby Road	162	40	1493	991	0.163	162	260	0.4	0.3	6.122	A
E - E Halton Road	520	130	1151	1150	0.452	523	504	1.7	0.9	6.369	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160 E	1482	370	502	2460	0.602	1489	896	3.8	2.0	4.957	A
B - Habrough Road	100	25	1731	844	0.119	100	260	0.2	0.1	4.917	A
C - A160 W	1094	273	364	2494	0.439	1096	1468	1.8	1.2	4.038	A
D - Ulceby Road	136	34	1245	1101	0.123	136	215	0.3	0.2	5.255	A
E - E Halton Road	435	109	962	1233	0.353	436	418	0.9	0.6	4.995	A

Appendix TN2 P

A180/ A1173 Junction Assessment Results

<h1>Junctions 10</h1>
<h2>ARCADY 10 - Roundabout Module</h2>
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Filename: A180-A1173.j10
Path: P:\23000's\23325\Junction Assessment\1 Base Assessment
Report generation date: 18/10/2023 16:00:25

- »2021 Base, AM
- »2021 Base, PM
- »2025 Base, AM
- »2025 Base, PM
- »2025 Base + Committed, AM
- »2025 Base + Committed, PM
- »2025 Base + Committed + Development, AM
- »2025 Base + Committed + Development, PM
- »2032 Base, AM
- »2032 Base, PM
- »2032 Base + Committed, AM
- »2032 Base + Committed, PM
- »2032 Base + Committed + Development, AM
- »2032 Base + Committed + Development, PM

Summary of junction performance

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Base						
A - A1173 N	0.2	2.00	0.11	0.8	2.35	0.42
B - A180 E	0.4	1.90	0.29	0.2	2.11	0.19
C - A1173 S	0.3	2.78	0.24	0.1	2.09	0.10
D - A180 W	0.4	3.13	0.23	0.2	2.34	0.11
2025 Base						
A - A1173 N	0.2	2.01	0.12	0.8	2.40	0.43
B - A180 E	0.4	1.93	0.30	0.3	2.14	0.20
C - A1173 S	0.3	2.85	0.25	0.1	2.11	0.10
D - A180 W	0.4	3.22	0.24	0.2	2.36	0.11
2025 Base + Committed						
A - A1173 N	0.4	2.34	0.20	1.3	3.20	0.55
B - A180 E	0.8	2.59	0.42	0.5	2.74	0.30
C - A1173 S	0.6	4.11	0.39	0.2	2.46	0.16
D - A180 W	0.9	5.24	0.41	0.4	2.81	0.20
2025 Base + Committed + Development						
A - A1173 N	0.5	2.51	0.23	1.7	3.74	0.60
B - A180 E	0.9	2.85	0.45	0.5	3.07	0.32
C - A1173 S	0.7	4.57	0.42	0.2	2.74	0.17
D - A180 W	1.5	7.00	0.53	0.7	3.45	0.30
2032 Base						
A - A1173 N	0.2	2.03	0.12	0.9	2.49	0.45
B - A180 E	0.5	1.97	0.31	0.3	2.20	0.21
C - A1173 S	0.4	2.96	0.27	0.1	2.15	0.11
D - A180 W	0.4	3.37	0.25	0.2	2.39	0.12
2032 Base + Committed						
A - A1173 N	0.4	2.37	0.20	1.5	3.36	0.57
B - A180 E	0.8	2.67	0.44	0.5	2.83	0.31
C - A1173 S	0.7	4.33	0.41	0.2	2.50	0.16
D - A180 W	1.0	5.58	0.43	0.4	2.85	0.21
2032 Base + Committed + Development						
A - A1173 N	0.5	2.55	0.24	1.9	3.95	0.62
B - A180 E	0.9	2.94	0.46	0.5	3.18	0.34
C - A1173 S	0.8	4.84	0.44	0.2	2.80	0.18
D - A180 W	1.7	7.57	0.55	0.7	3.51	0.31

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 Av. delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	18/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\Arcady
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

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	2021 Base	AM	ONE HOUR	06:45	08:15	15	✓
D2	2021 Base	PM	ONE HOUR	15:45	17:15	15	✓
D3	2025 Base	AM	ONE HOUR	06:45	08:15	15	✓
D4	2025 Base	PM	ONE HOUR	15:45	17:15	15	✓
D5	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D6	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D7	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D8	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓
D9	2032 Base	AM	ONE HOUR	06:45	08:15	15	✓
D10	2032 Base	PM	ONE HOUR	15:45	17:15	15	✓
D11	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D12	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D13	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D14	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2021 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A1173 N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C, D	2.37	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.37	A

Arms

Arms

Arm	Name	Description	No give-way line
A	A1173 N		
B	A180 E		
C	A1173 S		
D	A180 W		

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
A - A1173 N	3.65	8.60	49.0	42.5	100.0	16.0		
B - A180 E	6.70	7.40	15.0	47.0	100.0	11.0		
C - A1173 S	3.65	8.50	21.0	22.0	100.0	43.0		
D - A180 W	6.80	8.00	10.0	31.0	100.0	15.0		

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A1173 N	210	✓	47.00
B - A180 E	194	✓	105.00
C - A1173 S	849	✓	34.00
D - A180 W	1026	✓	113.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A1173 N	1.162	3127
B - A180 E	1.179	3022
C - A1173 S	0.844	2470
D - A180 W	1.003	2873

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	2021 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A1173 N		ONE HOUR	✓	294	100.000
B - A180 E		ONE HOUR	✓	729	100.000
C - A1173 S		ONE HOUR	✓	386	100.000
D - A180 W		ONE HOUR	✓	383	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
From	A - A1173 N	0	132	28	134
	B - A180 E	636	0	91	2
	C - A1173 S	119	178	0	89
	D - A180 W	369	0	14	0

Vehicle Mix

HV %s

		To			
		A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
From	A - A1173 N	0	20	44	72
	B - A180 E	5	0	5	0
	C - A1173 S	4	1	0	4
	D - A180 W	24	0	18	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A1173 N	0.11	2.00	0.2	A	270	405
B - A180 E	0.29	1.90	0.4	A	669	1003
C - A1173 S	0.24	2.78	0.3	A	354	531
D - A180 W	0.23	3.13	0.4	A	351	527

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	221	55	144	2959	0.075	221	844	0.0	0.1	1.863	A
B - A180 E	549	137	132	2866	0.192	548	233	0.0	0.2	1.630	A
C - A1173 S	291	73	580	1980	0.147	290	100	0.0	0.2	2.183	A
D - A180 W	288	72	701	2170	0.133	288	169	0.0	0.2	2.365	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	264	66	172	2926	0.090	264	1010	0.1	0.1	1.916	A
B - A180 E	655	164	158	2835	0.231	655	279	0.2	0.3	1.732	A
C - A1173 S	347	87	694	1884	0.184	347	120	0.2	0.2	2.402	A
D - A180 W	344	86	838	2033	0.169	344	202	0.2	0.3	2.638	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	324	81	211	2881	0.112	324	1237	0.1	0.2	1.995	A
B - A180 E	803	201	194	2793	0.287	802	341	0.3	0.4	1.897	A
C - A1173 S	425	106	850	1753	0.242	425	146	0.2	0.3	2.780	A
D - A180 W	422	105	1027	1844	0.229	421	248	0.3	0.4	3.132	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	324	81	211	2881	0.112	324	1238	0.2	0.2	1.995	A
B - A180 E	803	201	194	2793	0.287	803	341	0.4	0.4	1.897	A
C - A1173 S	425	106	850	1752	0.243	425	146	0.3	0.3	2.781	A
D - A180 W	422	105	1027	1843	0.229	422	248	0.4	0.4	3.133	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	264	66	173	2926	0.090	264	1011	0.2	0.1	1.917	A
B - A180 E	655	164	158	2835	0.231	656	279	0.4	0.3	1.736	A
C - A1173 S	347	87	694	1884	0.184	347	120	0.3	0.2	2.406	A
D - A180 W	344	86	839	2031	0.169	345	202	0.4	0.3	2.643	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	221	55	145	2958	0.075	221	847	0.1	0.1	1.866	A
B - A180 E	549	137	133	2865	0.192	549	234	0.3	0.2	1.631	A
C - A1173 S	291	73	581	1979	0.147	291	100	0.2	0.2	2.187	A
D - A180 W	288	72	703	2168	0.133	289	169	0.3	0.2	2.371	A

2021 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A1173 N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C, D	2.27	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.27	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A1173 N	215	✓	47.00
B - A180 E	619	✓	105.00
C - A1173 S	562	✓	34.00
D - A180 W	363	✓	113.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2021 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A1173 N		ONE HOUR	✓	1097	100.000
B - A180 E		ONE HOUR	✓	387	100.000
C - A1173 S		ONE HOUR	✓	183	100.000
D - A180 W		ONE HOUR	✓	258	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	602	158	337
B - A180 E	174	0	213	0
C - A1173 S	30	125	0	28
D - A180 W	188	1	69	0

Vehicle Mix

HV %s

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	2	6	25
B - A180 E	12	0	3	0
C - A1173 S	33	1	0	8
D - A180 W	78	0	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A1173 N	0.42	2.35	0.8	A	1007	1510
B - A180 E	0.19	2.11	0.2	A	355	533
C - A1173 S	0.10	2.09	0.1	A	168	252
D - A180 W	0.11	2.34	0.2	A	237	355

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	826	206	146	2955	0.279	824	294	0.0	0.4	1.834	A
B - A180 E	291	73	424	2463	0.118	291	547	0.0	0.1	1.770	A
C - A1173 S	138	34	384	2193	0.063	137	331	0.0	0.1	1.860	A
D - A180 W	194	49	247	2743	0.071	194	274	0.0	0.1	2.136	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	986	247	175	2922	0.338	986	352	0.4	0.6	2.021	A
B - A180 E	348	87	507	2373	0.147	348	654	0.1	0.2	1.898	A
C - A1173 S	165	41	459	2125	0.077	164	395	0.1	0.1	1.950	A
D - A180 W	232	58	296	2687	0.086	232	328	0.1	0.1	2.218	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1208	302	215	2876	0.420	1207	431	0.6	0.8	2.343	A
B - A180 E	426	107	621	2249	0.189	426	801	0.2	0.2	2.109	A
C - A1173 S	201	50	562	2033	0.099	201	484	0.1	0.1	2.087	A
D - A180 W	284	71	362	2611	0.109	284	402	0.1	0.2	2.340	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1208	302	215	2876	0.420	1208	432	0.8	0.8	2.345	A
B - A180 E	426	107	621	2249	0.189	426	802	0.2	0.2	2.110	A
C - A1173 S	201	50	563	2033	0.099	201	484	0.1	0.1	2.088	A
D - A180 W	284	71	362	2611	0.109	284	402	0.2	0.2	2.340	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	986	247	175	2922	0.338	987	353	0.8	0.6	2.025	A
B - A180 E	348	87	507	2372	0.147	348	655	0.2	0.2	1.900	A
C - A1173 S	165	41	460	2125	0.077	165	396	0.1	0.1	1.951	A
D - A180 W	232	58	296	2687	0.086	232	328	0.2	0.1	2.218	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	826	206	147	2955	0.280	826	295	0.6	0.4	1.841	A
B - A180 E	291	73	425	2462	0.118	292	548	0.2	0.1	1.774	A
C - A1173 S	138	34	385	2192	0.063	138	331	0.1	0.1	1.861	A
D - A180 W	194	49	248	2742	0.071	194	275	0.1	0.1	2.139	A

2025 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A1173 N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C, D	2.41	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.41	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A1173 N	216	✓	47.00
B - A180 E	199	✓	105.00
C - A1173 S	872	✓	34.00
D - A180 W	1054	✓	113.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2025 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A1173 N		ONE HOUR	✓	303	100.000
B - A180 E		ONE HOUR	✓	749	100.000
C - A1173 S		ONE HOUR	✓	395	100.000
D - A180 W		ONE HOUR	✓	393	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	136	29	138
B - A180 E	653	0	94	2
C - A1173 S	122	182	0	91
D - A180 W	379	0	14	0

Vehicle Mix

HV %s

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	20	44	72
B - A180 E	5	0	5	0
C - A1173 S	4	1	0	4
D - A180 W	24	0	18	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A1173 N	0.12	2.01	0.2	A	278	417
B - A180 E	0.30	1.93	0.4	A	687	1031
C - A1173 S	0.25	2.85	0.3	A	362	544
D - A180 W	0.24	3.22	0.4	A	361	541

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	228	57	147	2954	0.077	228	867	0.0	0.1	1.871	A
B - A180 E	564	141	136	2860	0.197	563	239	0.0	0.3	1.644	A
C - A1173 S	297	74	596	1964	0.151	297	103	0.0	0.2	2.214	A
D - A180 W	296	74	719	2150	0.138	295	174	0.0	0.2	2.400	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	272	68	176	2921	0.093	272	1037	0.1	0.1	1.927	A
B - A180 E	673	168	163	2829	0.238	673	286	0.3	0.3	1.752	A
C - A1173 S	355	89	713	1866	0.190	355	123	0.2	0.2	2.444	A
D - A180 W	353	88	860	2010	0.176	353	208	0.2	0.3	2.689	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	334	83	216	2875	0.116	333	1270	0.1	0.2	2.008	A
B - A180 E	825	206	199	2786	0.296	824	350	0.3	0.4	1.926	A
C - A1173 S	435	109	873	1732	0.251	434	151	0.2	0.3	2.847	A
D - A180 W	433	108	1053	1817	0.238	432	254	0.3	0.4	3.217	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	334	83	216	2875	0.116	334	1271	0.2	0.2	2.008	A
B - A180 E	825	206	199	2786	0.296	825	350	0.4	0.4	1.926	A
C - A1173 S	435	109	873	1731	0.251	435	151	0.3	0.3	2.848	A
D - A180 W	433	108	1054	1817	0.238	433	254	0.4	0.4	3.218	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	272	68	176	2920	0.093	273	1038	0.2	0.1	1.927	A
B - A180 E	673	168	163	2829	0.238	674	286	0.4	0.3	1.753	A
C - A1173 S	355	89	713	1865	0.190	356	123	0.3	0.2	2.448	A
D - A180 W	353	88	861	2009	0.176	354	208	0.4	0.3	2.692	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	228	57	148	2954	0.077	228	869	0.1	0.1	1.871	A
B - A180 E	564	141	136	2860	0.197	564	240	0.3	0.3	1.648	A
C - A1173 S	297	74	597	1963	0.152	298	103	0.2	0.2	2.217	A
D - A180 W	296	74	721	2148	0.138	296	174	0.3	0.2	2.407	A

2025 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A1173 N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C, D	2.31	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.31	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A1173 N	220	✓	47.00
B - A180 E	635	✓	105.00
C - A1173 S	576	✓	34.00
D - A180 W	372	✓	113.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2025 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A1173 N		ONE HOUR	✓	1125	100.000
B - A180 E		ONE HOUR	✓	398	100.000
C - A1173 S		ONE HOUR	✓	187	100.000
D - A180 W		ONE HOUR	✓	264	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	618	162	345
B - A180 E	179	0	219	0
C - A1173 S	31	128	0	28
D - A180 W	193	1	70	0

Vehicle Mix

HV %s

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	2	6	25
B - A180 E	12	0	3	0
C - A1173 S	33	1	0	8
D - A180 W	78	0	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A1173 N	0.43	2.40	0.8	A	1032	1548
B - A180 E	0.20	2.14	0.3	A	365	548
C - A1173 S	0.10	2.11	0.1	A	172	257
D - A180 W	0.11	2.36	0.2	A	242	363

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	847	212	149	2951	0.287	845	303	0.0	0.4	1.856	A
B - A180 E	300	75	433	2450	0.122	299	561	0.0	0.1	1.787	A
C - A1173 S	141	35	394	2182	0.065	140	339	0.0	0.1	1.873	A
D - A180 W	199	50	254	2734	0.073	198	280	0.0	0.1	2.151	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1011	253	179	2917	0.347	1011	362	0.4	0.6	2.053	A
B - A180 E	358	89	518	2358	0.152	358	671	0.1	0.2	1.922	A
C - A1173 S	168	42	471	2113	0.080	168	405	0.1	0.1	1.966	A
D - A180 W	237	59	304	2677	0.089	237	335	0.1	0.1	2.235	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1239	310	219	2870	0.432	1238	443	0.6	0.8	2.396	A
B - A180 E	438	110	635	2232	0.196	438	822	0.2	0.3	2.143	A
C - A1173 S	206	51	577	2019	0.102	206	496	0.1	0.1	2.110	A
D - A180 W	291	73	372	2598	0.112	290	410	0.1	0.2	2.363	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1239	310	219	2870	0.432	1239	444	0.8	0.8	2.398	A
B - A180 E	438	110	635	2232	0.196	438	822	0.3	0.3	2.144	A
C - A1173 S	206	51	577	2018	0.102	206	497	0.1	0.1	2.110	A
D - A180 W	291	73	372	2598	0.112	291	411	0.2	0.2	2.363	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1011	253	179	2917	0.347	1012	363	0.8	0.6	2.057	A
B - A180 E	358	89	519	2357	0.152	358	672	0.3	0.2	1.925	A
C - A1173 S	168	42	471	2112	0.080	168	406	0.1	0.1	1.969	A
D - A180 W	237	59	304	2676	0.089	238	336	0.2	0.1	2.236	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	847	212	150	2950	0.287	848	304	0.6	0.4	1.860	A
B - A180 E	300	75	435	2449	0.122	300	563	0.2	0.1	1.789	A
C - A1173 S	141	35	395	2181	0.065	141	340	0.1	0.1	1.877	A
D - A180 W	199	50	255	2733	0.073	199	281	0.1	0.1	2.153	A

2025 Base + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A1173 N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C, D	3.44	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.44	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A1173 N	300	✓	47.00
B - A180 E	370	✓	105.00
C - A1173 S	1179	✓	34.00
D - A180 W	1388	✓	113.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A1173 N		ONE HOUR	✓	493	100.000
B - A180 E		ONE HOUR	✓	980	100.000
C - A1173 S		ONE HOUR	✓	518	100.000
D - A180 W		ONE HOUR	✓	563	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	178	112	203
B - A180 E	867	0	111	2
C - A1173 S	144	251	0	123
D - A180 W	541	0	22	0

Vehicle Mix

HV %s

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	17	69	65
B - A180 E	7	0	4	0
C - A1173 S	4	1	0	3
D - A180 W	30	0	11	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A1173 N	0.20	2.34	0.4	A	452	679
B - A180 E	0.42	2.59	0.8	A	899	1349
C - A1173 S	0.39	4.11	0.6	A	475	713
D - A180 W	0.41	5.24	0.9	A	517	775

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	371	93	205	2872	0.129	370	1165	0.0	0.2	2.078	A
B - A180 E	738	184	253	2692	0.274	736	322	0.0	0.4	1.960	A
C - A1173 S	390	97	805	1761	0.221	389	184	0.0	0.3	2.681	A
D - A180 W	424	106	948	1914	0.221	422	246	0.0	0.4	3.113	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	443	111	245	2826	0.157	443	1394	0.2	0.3	2.181	A
B - A180 E	881	220	303	2636	0.334	880	385	0.4	0.5	2.187	A
C - A1173 S	466	116	963	1637	0.284	465	220	0.3	0.4	3.140	A
D - A180 W	506	127	1134	1743	0.290	505	295	0.4	0.5	3.755	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	543	136	300	2763	0.196	542	1706	0.3	0.4	2.340	A
B - A180 E	1079	270	371	2558	0.422	1078	472	0.5	0.8	2.592	A
C - A1173 S	570	143	1179	1467	0.389	569	270	0.4	0.6	4.096	A
D - A180 W	620	155	1388	1508	0.411	618	361	0.5	0.9	5.217	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	543	136	301	2762	0.197	543	1709	0.4	0.4	2.341	A
B - A180 E	1079	270	371	2558	0.422	1079	472	0.8	0.8	2.595	A
C - A1173 S	570	143	1180	1467	0.389	570	270	0.6	0.6	4.108	A
D - A180 W	620	155	1389	1507	0.411	620	361	0.9	0.9	5.241	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	443	111	246	2825	0.157	444	1398	0.4	0.3	2.182	A
B - A180 E	881	220	303	2635	0.334	882	386	0.8	0.5	2.190	A
C - A1173 S	466	116	965	1636	0.285	467	220	0.6	0.4	3.151	A
D - A180 W	506	127	1136	1741	0.291	508	295	0.9	0.5	3.776	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	371	93	206	2871	0.129	371	1170	0.3	0.2	2.079	A
B - A180 E	738	184	254	2691	0.274	738	323	0.5	0.4	1.967	A
C - A1173 S	390	97	808	1759	0.222	390	185	0.4	0.3	2.692	A
D - A180 W	424	106	951	1911	0.222	425	247	0.5	0.4	3.127	A

2025 Base + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A1173 N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C, D	2.97	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.97	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A1173 N	298	✓	47.00
B - A180 E	833	✓	105.00
C - A1173 S	749	✓	34.00
D - A180 W	518	✓	113.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A1173 N		ONE HOUR	✓	1382	100.000
B - A180 E		ONE HOUR	✓	541	100.000
C - A1173 S		ONE HOUR	✓	261	100.000
D - A180 W		ONE HOUR	✓	444	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	725	231	426
B - A180 E	255	0	286	0
C - A1173 S	47	168	0	46
D - A180 W	342	1	101	0

Vehicle Mix

HV %s

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	2	16	26
B - A180 E	13	0	3	0
C - A1173 S	34	1	0	5
D - A180 W	73	0	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A1173 N	0.55	3.20	1.3	A	1268	1902
B - A180 E	0.30	2.74	0.5	A	496	745
C - A1173 S	0.16	2.46	0.2	A	239	359
D - A180 W	0.20	2.81	0.4	A	407	611

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1040	260	203	2874	0.362	1038	484	0.0	0.6	2.168	A
B - A180 E	407	102	569	2282	0.178	406	671	0.0	0.2	2.062	A
C - A1173 S	196	49	511	2052	0.096	196	464	0.0	0.1	2.064	A
D - A180 W	334	84	353	2598	0.129	333	354	0.0	0.2	2.394	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1242	311	243	2829	0.439	1241	579	0.6	0.9	2.510	A
B - A180 E	486	122	681	2166	0.225	486	803	0.2	0.3	2.303	A
C - A1173 S	235	59	612	1966	0.119	235	555	0.1	0.1	2.212	A
D - A180 W	399	100	422	2520	0.158	399	424	0.2	0.3	2.554	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1522	380	297	2767	0.550	1520	708	0.9	1.3	3.193	A
B - A180 E	596	149	834	2007	0.297	595	983	0.3	0.5	2.738	A
C - A1173 S	287	72	749	1848	0.156	287	680	0.1	0.2	2.455	A
D - A180 W	489	122	517	2415	0.202	488	519	0.3	0.4	2.813	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1522	380	297	2766	0.550	1522	709	1.3	1.3	3.201	A
B - A180 E	596	149	835	2006	0.297	596	984	0.5	0.5	2.742	A
C - A1173 S	287	72	750	1847	0.156	287	680	0.2	0.2	2.456	A
D - A180 W	489	122	517	2414	0.202	489	520	0.4	0.4	2.814	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1242	311	243	2828	0.439	1244	580	1.3	0.9	2.519	A
B - A180 E	486	122	682	2164	0.225	487	805	0.5	0.3	2.306	A
C - A1173 S	235	59	613	1965	0.119	235	556	0.2	0.1	2.216	A
D - A180 W	399	100	423	2520	0.158	400	425	0.4	0.3	2.558	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1040	260	203	2874	0.362	1041	485	0.9	0.6	2.178	A
B - A180 E	407	102	571	2280	0.179	408	674	0.3	0.2	2.066	A
C - A1173 S	196	49	513	2051	0.096	197	466	0.1	0.1	2.067	A
D - A180 W	334	84	354	2596	0.129	335	356	0.3	0.2	2.396	A

2025 Base + Committed + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A1173 N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C, D	4.16	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.16	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A1173 N	300	✓	47.00
B - A180 E	472	✓	105.00
C - A1173 S	1280	✓	34.00
D - A180 W	1399	✓	113.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A1173 N		ONE HOUR	✓	589	100.000
B - A180 E		ONE HOUR	✓	983	100.000
C - A1173 S		ONE HOUR	✓	524	100.000
D - A180 W		ONE HOUR	✓	717	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	181	116	292
B - A180 E	870	0	111	2
C - A1173 S	150	251	0	123
D - A180 W	695	0	22	0

Vehicle Mix

HV %s

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	16	70	67
B - A180 E	7	0	4	0
C - A1173 S	6	1	0	3
D - A180 W	39	0	11	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A1173 N	0.23	2.51	0.5	A	540	811
B - A180 E	0.45	2.85	0.9	A	902	1353
C - A1173 S	0.42	4.57	0.7	A	481	721
D - A180 W	0.53	7.00	1.5	A	658	987

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	443	111	205	2872	0.154	442	1287	0.0	0.3	2.185	A
B - A180 E	740	185	323	2596	0.285	738	324	0.0	0.4	2.064	A
C - A1173 S	394	99	874	1699	0.232	393	187	0.0	0.3	2.833	A
D - A180 W	540	135	954	1908	0.283	538	313	0.0	0.5	3.612	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	529	132	245	2826	0.187	529	1540	0.3	0.3	2.313	A
B - A180 E	884	221	386	2525	0.350	883	388	0.4	0.6	2.338	A
C - A1173 S	471	118	1046	1568	0.300	471	224	0.3	0.4	3.373	A
D - A180 W	645	161	1142	1736	0.371	643	375	0.5	0.8	4.542	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	649	162	300	2763	0.235	648	1884	0.3	0.5	2.512	A
B - A180 E	1082	271	473	2428	0.446	1081	475	0.6	0.9	2.846	A
C - A1173 S	577	144	1280	1388	0.416	576	274	0.4	0.7	4.554	A
D - A180 W	789	197	1398	1500	0.526	787	459	0.8	1.5	6.932	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	649	162	301	2762	0.235	648	1888	0.5	0.5	2.512	A
B - A180 E	1082	271	473	2428	0.446	1082	476	0.9	0.9	2.852	A
C - A1173 S	577	144	1282	1387	0.416	577	274	0.7	0.7	4.572	A
D - A180 W	789	197	1399	1498	0.527	789	459	1.5	1.5	7.003	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	529	132	246	2825	0.187	530	1546	0.5	0.3	2.315	A
B - A180 E	884	221	387	2525	0.350	885	389	0.9	0.6	2.342	A
C - A1173 S	471	118	1048	1566	0.301	472	224	0.7	0.4	3.387	A
D - A180 W	645	161	1144	1733	0.372	647	375	1.5	0.8	4.585	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	443	111	206	2871	0.154	444	1293	0.3	0.3	2.190	A
B - A180 E	740	185	324	2595	0.285	741	326	0.6	0.4	2.070	A
C - A1173 S	394	99	877	1697	0.232	395	188	0.4	0.3	2.844	A
D - A180 W	540	135	958	1905	0.283	541	314	0.8	0.5	3.642	A

2025 Base + Committed + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A1173 N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C, D	3.47	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.47	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A1173 N	298	✓	47.00
B - A180 E	975	✓	105.00
C - A1173 S	888	✓	34.00
D - A180 W	531	✓	113.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A1173 N		ONE HOUR	✓	1513	100.000
B - A180 E		ONE HOUR	✓	544	100.000
C - A1173 S		ONE HOUR	✓	270	100.000
D - A180 W		ONE HOUR	✓	651	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	728	236	549
B - A180 E	258	0	286	0
C - A1173 S	56	168	0	46
D - A180 W	549	1	101	0

Vehicle Mix

HV %s

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	2	17	35
B - A180 E	13	0	3	0
C - A1173 S	42	1	0	5
D - A180 W	79	0	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A1173 N	0.60	3.74	1.7	A	1388	2083
B - A180 E	0.32	3.07	0.5	A	499	749
C - A1173 S	0.17	2.74	0.2	A	248	372
D - A180 W	0.30	3.45	0.7	A	597	896

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1139	285	203	2874	0.396	1136	648	0.0	0.7	2.366	A
B - A180 E	410	102	665	2170	0.189	409	674	0.0	0.2	2.196	A
C - A1173 S	203	51	606	1954	0.104	203	468	0.0	0.1	2.224	A
D - A180 W	490	123	362	2586	0.190	489	447	0.0	0.4	2.766	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1360	340	243	2829	0.481	1359	775	0.7	1.1	2.800	A
B - A180 E	489	122	796	2038	0.240	489	806	0.2	0.3	2.497	A
C - A1173 S	243	61	725	1854	0.131	243	560	0.1	0.2	2.416	A
D - A180 W	585	146	433	2507	0.233	585	534	0.4	0.5	3.019	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1666	416	297	2767	0.602	1663	949	1.1	1.7	3.723	A
B - A180 E	599	150	974	1859	0.322	598	986	0.3	0.5	3.069	A
C - A1173 S	297	74	887	1718	0.173	297	685	0.2	0.2	2.740	A
D - A180 W	717	179	530	2399	0.299	716	654	0.5	0.7	3.446	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1666	416	297	2766	0.602	1666	950	1.7	1.7	3.742	A
B - A180 E	599	150	975	1857	0.322	599	988	0.5	0.5	3.075	A
C - A1173 S	297	74	889	1717	0.173	297	686	0.2	0.2	2.742	A
D - A180 W	717	179	531	2398	0.299	717	655	0.7	0.7	3.450	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1360	340	243	2828	0.481	1363	777	1.7	1.1	2.815	A
B - A180 E	489	122	798	2036	0.240	490	808	0.5	0.3	2.505	A
C - A1173 S	243	61	727	1852	0.131	243	561	0.2	0.2	2.419	A
D - A180 W	585	146	434	2506	0.234	586	536	0.7	0.5	3.025	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1139	285	203	2874	0.396	1140	650	1.1	0.8	2.380	A
B - A180 E	410	102	668	2168	0.189	410	676	0.3	0.3	2.202	A
C - A1173 S	203	51	608	1952	0.104	203	469	0.2	0.1	2.229	A
D - A180 W	490	123	363	2584	0.190	491	448	0.5	0.4	2.771	A

2032 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A1173 N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C, D	2.49	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.49	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A1173 N	224	✓	47.00
B - A180 E	207	✓	105.00
C - A1173 S	908	✓	34.00
D - A180 W	1097	✓	113.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2032 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A1173 N		ONE HOUR	✓	314	100.000
B - A180 E		ONE HOUR	✓	778	100.000
C - A1173 S		ONE HOUR	✓	412	100.000
D - A180 W		ONE HOUR	✓	410	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	141	30	143
B - A180 E	679	0	97	2
C - A1173 S	127	190	0	95
D - A180 W	395	0	15	0

Vehicle Mix

HV %s

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	20	44	72
B - A180 E	5	0	5	0
C - A1173 S	4	1	0	4
D - A180 W	24	0	18	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A1173 N	0.12	2.03	0.2	A	288	432
B - A180 E	0.31	1.97	0.5	A	714	1071
C - A1173 S	0.27	2.96	0.4	A	378	567
D - A180 W	0.25	3.37	0.4	A	376	564

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	236	59	154	2945	0.080	236	902	0.0	0.1	1.883	A
B - A180 E	586	146	141	2853	0.205	585	249	0.0	0.3	1.666	A
C - A1173 S	310	78	619	1940	0.160	309	107	0.0	0.2	2.263	A
D - A180 W	309	77	748	2118	0.146	308	180	0.0	0.2	2.460	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	282	71	184	2910	0.097	282	1079	0.1	0.2	1.942	A
B - A180 E	699	175	169	2820	0.248	699	297	0.3	0.3	1.781	A
C - A1173 S	370	93	740	1839	0.201	370	128	0.2	0.3	2.514	A
D - A180 W	369	92	895	1973	0.187	368	216	0.2	0.3	2.775	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	346	86	225	2862	0.121	346	1321	0.2	0.2	2.028	A
B - A180 E	857	214	207	2775	0.309	856	364	0.3	0.5	1.969	A
C - A1173 S	454	113	907	1700	0.267	453	156	0.3	0.4	2.961	A
D - A180 W	451	113	1096	1775	0.254	451	264	0.3	0.4	3.362	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	346	86	226	2862	0.121	346	1322	0.2	0.2	2.028	A
B - A180 E	857	214	207	2775	0.309	857	364	0.5	0.5	1.969	A
C - A1173 S	454	113	907	1700	0.267	454	156	0.4	0.4	2.962	A
D - A180 W	451	113	1097	1774	0.254	451	264	0.4	0.4	3.367	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	282	71	185	2909	0.097	282	1081	0.2	0.2	1.944	A
B - A180 E	699	175	169	2820	0.248	700	298	0.5	0.3	1.785	A
C - A1173 S	370	93	741	1838	0.201	371	128	0.4	0.3	2.517	A
D - A180 W	369	92	896	1972	0.187	369	216	0.4	0.3	2.779	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	236	59	154	2944	0.080	237	905	0.2	0.1	1.887	A
B - A180 E	586	146	142	2852	0.205	586	249	0.3	0.3	1.667	A
C - A1173 S	310	78	621	1939	0.160	310	107	0.3	0.2	2.269	A
D - A180 W	309	77	750	2116	0.146	309	181	0.3	0.2	2.465	A

2032 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A1173 N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C, D	2.39	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.39	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A1173 N	228	✓	47.00
B - A180 E	660	✓	105.00
C - A1173 S	598	✓	34.00
D - A180 W	386	✓	113.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2032 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A1173 N		ONE HOUR	✓	1168	100.000
B - A180 E		ONE HOUR	✓	413	100.000
C - A1173 S		ONE HOUR	✓	194	100.000
D - A180 W		ONE HOUR	✓	274	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	641	168	359
B - A180 E	186	0	227	0
C - A1173 S	32	133	0	29
D - A180 W	200	1	73	0

Vehicle Mix

HV %s

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	2	6	25
B - A180 E	12	0	3	0
C - A1173 S	33	1	0	8
D - A180 W	78	0	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A1173 N	0.45	2.49	0.9	A	1072	1608
B - A180 E	0.21	2.20	0.3	A	379	568
C - A1173 S	0.11	2.15	0.1	A	178	267
D - A180 W	0.12	2.39	0.2	A	251	377

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	879	220	155	2942	0.299	877	314	0.0	0.5	1.893	A
B - A180 E	311	78	451	2428	0.128	310	582	0.0	0.2	1.816	A
C - A1173 S	146	37	409	2164	0.067	146	352	0.0	0.1	1.894	A
D - A180 W	206	52	264	2720	0.076	206	291	0.0	0.1	2.168	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1050	263	186	2907	0.361	1049	376	0.5	0.6	2.107	A
B - A180 E	371	93	539	2333	0.159	371	696	0.2	0.2	1.960	A
C - A1173 S	174	44	490	2093	0.083	174	421	0.1	0.1	1.993	A
D - A180 W	246	62	315	2661	0.093	246	349	0.1	0.2	2.257	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1286	321	228	2859	0.450	1285	460	0.6	0.9	2.486	A
B - A180 E	455	114	660	2203	0.206	454	853	0.2	0.3	2.200	A
C - A1173 S	214	53	600	1995	0.107	213	515	0.1	0.1	2.146	A
D - A180 W	302	75	386	2580	0.117	301	427	0.2	0.2	2.392	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1286	321	228	2858	0.450	1286	460	0.9	0.9	2.489	A
B - A180 E	455	114	661	2202	0.206	455	853	0.3	0.3	2.201	A
C - A1173 S	214	53	600	1995	0.107	214	515	0.1	0.1	2.147	A
D - A180 W	302	75	386	2580	0.117	302	427	0.2	0.2	2.392	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1050	263	186	2907	0.361	1051	376	0.9	0.6	2.110	A
B - A180 E	371	93	540	2332	0.159	372	697	0.3	0.2	1.962	A
C - A1173 S	174	44	490	2092	0.083	175	421	0.1	0.1	1.995	A
D - A180 W	246	62	316	2661	0.093	247	349	0.2	0.2	2.259	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	879	220	156	2942	0.299	880	315	0.6	0.5	1.898	A
B - A180 E	311	78	452	2427	0.128	311	584	0.2	0.2	1.817	A
C - A1173 S	146	37	411	2163	0.068	146	353	0.1	0.1	1.898	A
D - A180 W	206	52	264	2719	0.076	206	292	0.2	0.1	2.169	A

2032 Base + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A1173 N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C, D	3.59	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.59	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A1173 N	309	✓	47.00
B - A180 E	378	✓	105.00
C - A1173 S	1214	✓	34.00
D - A180 W	1431	✓	113.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A1173 N		ONE HOUR	✓	504	100.000
B - A180 E		ONE HOUR	✓	1009	100.000
C - A1173 S		ONE HOUR	✓	535	100.000
D - A180 W		ONE HOUR	✓	579	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	183	113	208
B - A180 E	893	0	114	2
C - A1173 S	149	259	0	127
D - A180 W	556	0	23	0

Vehicle Mix

HV %s

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	17	69	65
B - A180 E	7	0	4	0
C - A1173 S	4	1	0	3
D - A180 W	30	0	11	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A1173 N	0.20	2.37	0.4	A	462	694
B - A180 E	0.44	2.67	0.8	A	926	1389
C - A1173 S	0.41	4.33	0.7	A	491	736
D - A180 W	0.43	5.58	1.0	A	531	797

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	379	95	212	2862	0.133	379	1200	0.0	0.2	2.091	A
B - A180 E	760	190	258	2685	0.283	758	332	0.0	0.4	1.990	A
C - A1173 S	403	101	829	1740	0.232	402	188	0.0	0.3	2.749	A
D - A180 W	436	109	977	1887	0.231	434	253	0.0	0.4	3.198	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	453	113	253	2815	0.161	453	1435	0.2	0.3	2.198	A
B - A180 E	907	227	309	2627	0.345	907	397	0.4	0.6	2.231	A
C - A1173 S	481	120	991	1613	0.298	480	225	0.3	0.4	3.248	A
D - A180 W	521	130	1169	1712	0.304	520	303	0.4	0.6	3.898	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	555	139	310	2750	0.202	555	1757	0.3	0.4	2.365	A
B - A180 E	1111	278	378	2548	0.436	1110	486	0.6	0.8	2.668	A
C - A1173 S	589	147	1213	1440	0.409	588	275	0.4	0.7	4.316	A
D - A180 W	637	159	1431	1472	0.433	636	371	0.6	1.0	5.546	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	555	139	310	2749	0.202	555	1759	0.4	0.4	2.366	A
B - A180 E	1111	278	379	2548	0.436	1111	487	0.8	0.8	2.671	A
C - A1173 S	589	147	1214	1439	0.409	589	275	0.7	0.7	4.330	A
D - A180 W	637	159	1432	1471	0.433	637	371	1.0	1.0	5.579	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	453	113	254	2814	0.161	453	1439	0.4	0.3	2.202	A
B - A180 E	907	227	310	2627	0.345	908	398	0.8	0.6	2.234	A
C - A1173 S	481	120	993	1612	0.298	482	225	0.7	0.4	3.261	A
D - A180 W	521	130	1171	1709	0.305	522	303	1.0	0.6	3.922	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	379	95	213	2861	0.133	380	1204	0.3	0.2	2.092	A
B - A180 E	760	190	259	2684	0.283	760	333	0.6	0.4	1.995	A
C - A1173 S	403	101	831	1738	0.232	403	188	0.4	0.3	2.761	A
D - A180 W	436	109	980	1884	0.231	437	254	0.6	0.4	3.215	A

2032 Base + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A1173 N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C, D	3.08	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.08	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A1173 N	306	✓	47.00
B - A180 E	858	✓	105.00
C - A1173 S	771	✓	34.00
D - A180 W	532	✓	113.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A1173 N		ONE HOUR	✓	1424	100.000
B - A180 E		ONE HOUR	✓	556	100.000
C - A1173 S		ONE HOUR	✓	268	100.000
D - A180 W		ONE HOUR	✓	454	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	748	237	439
B - A180 E	262	0	294	0
C - A1173 S	48	173	0	47
D - A180 W	349	1	104	0

Vehicle Mix

HV %s

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	2	16	26
B - A180 E	13	0	3	0
C - A1173 S	34	1	0	5
D - A180 W	73	0	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A1173 N	0.57	3.36	1.5	A	1307	1960
B - A180 E	0.31	2.83	0.5	A	510	765
C - A1173 S	0.16	2.50	0.2	A	246	369
D - A180 W	0.21	2.85	0.4	A	417	625

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1072	268	209	2866	0.374	1069	495	0.0	0.7	2.216	A
B - A180 E	419	105	586	2262	0.185	418	692	0.0	0.2	2.096	A
C - A1173 S	202	50	526	2036	0.099	201	477	0.0	0.1	2.087	A
D - A180 W	342	85	363	2585	0.132	341	365	0.0	0.2	2.412	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1280	320	250	2819	0.454	1279	592	0.7	0.9	2.587	A
B - A180 E	500	125	701	2144	0.233	500	828	0.2	0.3	2.353	A
C - A1173 S	241	60	630	1948	0.124	241	570	0.1	0.1	2.243	A
D - A180 W	408	102	434	2505	0.163	408	437	0.2	0.3	2.581	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1568	392	306	2755	0.569	1566	725	0.9	1.4	3.345	A
B - A180 E	612	153	858	1981	0.309	612	1014	0.3	0.5	2.823	A
C - A1173 S	295	74	771	1827	0.162	295	698	0.1	0.2	2.500	A
D - A180 W	500	125	531	2397	0.209	499	534	0.3	0.4	2.853	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1568	392	306	2755	0.569	1568	726	1.4	1.5	3.357	A
B - A180 E	612	153	859	1980	0.309	612	1015	0.5	0.5	2.828	A
C - A1173 S	295	74	772	1826	0.162	295	699	0.2	0.2	2.501	A
D - A180 W	500	125	532	2397	0.209	500	535	0.4	0.4	2.854	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1280	320	250	2819	0.454	1282	593	1.5	0.9	2.597	A
B - A180 E	500	125	702	2142	0.233	500	830	0.5	0.3	2.357	A
C - A1173 S	241	60	631	1946	0.124	241	572	0.2	0.2	2.246	A
D - A180 W	408	102	435	2505	0.163	409	438	0.4	0.3	2.585	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1072	268	209	2865	0.374	1073	497	0.9	0.7	2.226	A
B - A180 E	419	105	588	2260	0.185	419	695	0.3	0.2	2.103	A
C - A1173 S	202	50	528	2035	0.099	202	478	0.2	0.1	2.091	A
D - A180 W	342	85	364	2583	0.132	342	366	0.3	0.2	2.418	A

2032 Base + Committed + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A1173 N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C, D	4.39	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.39	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A1173 N	309	✓	47.00
B - A180 E	481	✓	105.00
C - A1173 S	1316	✓	34.00
D - A180 W	1442	✓	113.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A1173 N		ONE HOUR	✓	600	100.000
B - A180 E		ONE HOUR	✓	1012	100.000
C - A1173 S		ONE HOUR	✓	541	100.000
D - A180 W		ONE HOUR	✓	733	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	186	117	297
B - A180 E	896	0	114	2
C - A1173 S	155	259	0	127
D - A180 W	710	0	23	0

Vehicle Mix

HV %s

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	16	70	69
B - A180 E	7	0	4	0
C - A1173 S	6	1	0	3
D - A180 W	39	0	11	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A1173 N	0.24	2.55	0.5	A	551	826
B - A180 E	0.46	2.94	0.9	A	929	1393
C - A1173 S	0.44	4.84	0.8	A	496	745
D - A180 W	0.55	7.57	1.7	A	673	1009

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	452	113	212	2862	0.158	451	1322	0.0	0.3	2.210	A
B - A180 E	762	190	328	2589	0.294	760	334	0.0	0.4	2.097	A
C - A1173 S	407	102	898	1679	0.243	406	191	0.0	0.3	2.907	A
D - A180 W	552	138	984	1880	0.293	550	320	0.0	0.6	3.724	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	539	135	253	2815	0.192	539	1581	0.3	0.4	2.344	A
B - A180 E	910	227	393	2517	0.361	909	400	0.4	0.6	2.386	A
C - A1173 S	486	122	1074	1545	0.315	486	228	0.3	0.5	3.494	A
D - A180 W	659	165	1177	1705	0.387	658	383	0.6	0.9	4.738	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	661	165	310	2750	0.240	660	1934	0.4	0.5	2.552	A
B - A180 E	1114	279	481	2419	0.461	1113	489	0.6	0.9	2.937	A
C - A1173 S	596	149	1314	1362	0.437	594	279	0.5	0.8	4.818	A
D - A180 W	807	202	1440	1464	0.551	804	468	0.9	1.7	7.481	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	661	165	310	2749	0.240	661	1939	0.5	0.5	2.553	A
B - A180 E	1114	279	481	2418	0.461	1114	490	0.9	0.9	2.943	A
C - A1173 S	596	149	1316	1361	0.438	596	280	0.8	0.8	4.839	A
D - A180 W	807	202	1442	1462	0.552	807	469	1.7	1.7	7.570	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	539	135	254	2814	0.192	540	1588	0.5	0.4	2.348	A
B - A180 E	910	227	393	2516	0.362	911	401	0.9	0.6	2.392	A
C - A1173 S	486	122	1076	1543	0.315	488	229	0.8	0.5	3.511	A
D - A180 W	659	165	1180	1702	0.387	662	383	1.7	0.9	4.789	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	452	113	213	2861	0.158	452	1328	0.4	0.3	2.214	A
B - A180 E	762	190	329	2588	0.294	763	335	0.6	0.4	2.103	A
C - A1173 S	407	102	900	1677	0.243	408	191	0.5	0.3	2.921	A
D - A180 W	552	138	987	1877	0.294	553	321	0.9	0.6	3.754	A

2032 Base + Committed + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A1173 N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C, D	3.61	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.61	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A1173 N	306	✓	47.00
B - A180 E	1000	✓	105.00
C - A1173 S	911	✓	34.00
D - A180 W	546	✓	113.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A1173 N		ONE HOUR	✓	1555	100.000
B - A180 E		ONE HOUR	✓	559	100.000
C - A1173 S		ONE HOUR	✓	278	100.000
D - A180 W		ONE HOUR	✓	661	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	751	242	562
B - A180 E	265	0	294	0
C - A1173 S	58	173	0	47
D - A180 W	556	1	104	0

Vehicle Mix

HV %s

From	To			
	A - A1173 N	B - A180 E	C - A1173 S	D - A180 W
A - A1173 N	0	2	17	35
B - A180 E	13	0	3	0
C - A1173 S	42	1	0	5
D - A180 W	79	0	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A1173 N	0.62	3.95	1.9	A	1427	2140
B - A180 E	0.34	3.18	0.5	A	513	769
C - A1173 S	0.18	2.80	0.2	A	255	383
D - A180 W	0.31	3.51	0.7	A	607	910

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1171	293	209	2866	0.408	1168	660	0.0	0.8	2.420	A
B - A180 E	421	105	682	2151	0.196	420	695	0.0	0.3	2.234	A
C - A1173 S	209	52	621	1938	0.108	209	481	0.0	0.1	2.252	A
D - A180 W	498	124	372	2572	0.194	496	457	0.0	0.4	2.791	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1398	349	250	2819	0.496	1397	790	0.8	1.1	2.892	A
B - A180 E	503	126	816	2017	0.249	502	831	0.3	0.4	2.554	A
C - A1173 S	250	62	743	1837	0.136	250	575	0.1	0.2	2.454	A
D - A180 W	594	149	446	2491	0.239	594	547	0.4	0.5	3.054	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1712	428	306	2755	0.621	1709	967	1.1	1.9	3.925	A
B - A180 E	615	154	998	1834	0.336	615	1017	0.4	0.5	3.172	A
C - A1173 S	306	77	909	1698	0.180	306	704	0.2	0.2	2.797	A
D - A180 W	728	182	546	2380	0.306	727	669	0.5	0.7	3.503	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1712	428	306	2755	0.621	1712	968	1.9	1.9	3.948	A
B - A180 E	615	154	1000	1833	0.336	615	1018	0.5	0.5	3.179	A
C - A1173 S	306	77	911	1697	0.180	306	705	0.2	0.2	2.800	A
D - A180 W	728	182	546	2379	0.306	728	671	0.7	0.7	3.507	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1398	349	250	2819	0.496	1401	791	1.9	1.1	2.911	A
B - A180 E	503	126	818	2015	0.249	503	833	0.5	0.4	2.561	A
C - A1173 S	250	62	745	1835	0.136	250	576	0.2	0.2	2.458	A
D - A180 W	594	149	446	2490	0.239	595	549	0.7	0.5	3.058	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A1173 N	1171	293	209	2865	0.409	1172	662	1.1	0.8	2.435	A
B - A180 E	421	105	684	2149	0.196	421	697	0.4	0.3	2.240	A
C - A1173 S	209	52	623	1936	0.108	209	482	0.2	0.1	2.255	A
D - A180 W	498	124	374	2570	0.194	498	459	0.5	0.4	2.796	A

Appendix TN2 Q

A160/ A180 Junction Assessment Results

<h1>Junctions 10</h1>
<h2>ARCADY 10 - Roundabout Module</h2>
Version: 10.0.4.1693 © Copyright TRL Software Limited, 2021
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Filename: A160-A180.j10
Path: P:\23000's\23325\Junction Assessment\1 Base Assessment
Report generation date: 18/10/2023 16:11:33

- »2021 Base, AM
- »2021 Base, PM
- »2025 Base, AM
- »2025 Base, PM
- »2025 Base + Committed, AM
- »2025 Base + Committed, PM
- »2025 Base + Committed + Development, AM
- »2025 Base + Committed + Development, PM
- »2032 Base, AM
- »2032 Base, PM
- »2032 Base + Committed, AM
- »2032 Base + Committed, PM
- »2032 Base + Committed + Development, AM
- »2032 Base + Committed + Development, PM

Summary of junction performance

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Base						
A - A160	1.2	3.11	0.42	1.2	2.75	0.48
B - A180 E	1.6	11.72	0.62	0.3	6.02	0.21
C - A180 W	0.0	1.57	0.00	0.0	0.00	0.00
2025 Base						
A - A160	1.2	3.17	0.43	1.3	2.83	0.50
B - A180 E	1.9	13.34	0.65	0.3	6.30	0.22
C - A180 W	0.0	1.58	0.00	0.0	0.00	0.00
2025 Base + Committed						
A - A160	1.5	3.47	0.49	2.0	3.72	0.62
B - A180 E	4.2	28.30	0.81	0.5	10.15	0.34
C - A180 W	0.0	1.61	0.00	0.0	0.00	0.00
2025 Base + Committed + Development						
A - A160	1.5	3.53	0.49	2.1	3.81	0.63
B - A180 E	4.5	30.82	0.83	0.6	10.60	0.35
C - A180 W	0.0	1.61	0.00	0.0	0.00	0.00
2032 Base						
A - A160	1.3	3.29	0.45	1.4	2.96	0.52
B - A180 E	2.5	17.15	0.72	0.4	6.80	0.25
C - A180 W	0.0	1.60	0.00	0.0	0.00	0.00
2032 Base + Committed						
A - A160	1.6	3.61	0.51	2.3	3.96	0.64
B - A180 E	7.1	47.04	0.89	0.6	11.36	0.37
C - A180 W	0.0	1.63	0.00	0.0	0.00	0.00
2032 Base + Committed + Development						
A - A160	1.7	3.67	0.51	2.3	4.05	0.65
B - A180 E	8.0	53.33	0.91	0.7	11.87	0.38
C - A180 W	0.0	1.63	0.00	0.0	0.00	0.00

Values shown are the highest values encountered over all time segments. Delay is the maximum value of Av. delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	18/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\Arcady
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

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	2021 Base	AM	ONE HOUR	06:45	08:15	15	✓
D2	2021 Base	PM	ONE HOUR	15:45	17:15	15	✓
D3	2025 Base	AM	ONE HOUR	06:45	08:15	15	✓
D4	2025 Base	PM	ONE HOUR	15:45	17:15	15	✓
D5	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D6	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D7	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D8	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓
D9	2032 Base	AM	ONE HOUR	06:45	08:15	15	✓
D10	2032 Base	PM	ONE HOUR	15:45	17:15	15	✓
D11	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D12	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D13	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D14	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2021 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	3.91	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.91	A

Arms

Arms

Arm	Name	Description	No give-way line
A	A160		
B	A180 E		
C	A180 W		

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
A - A160	7.12	8.39	15.0	37.9	103.5	41.0		
B - A180 E	3.80	4.80	5.0	25.9	102.0	44.0		
C - A180 W	4.81	8.20	30.0	75.4	102.0	4.0		

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	1	✓	38.00
B - A180 E	1155	✓	142.00
C - A180 W	509	✓	170.00

Bypass

Arm	Arm has bypass	Bypass Util (%)
A - A160		
B - A180 E		
C - A180 W	✓	100

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A160	1.169	3211
B - A180 E	0.650	1578
C - A180 W	1.140	2877

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	2021 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1215	100.000
B - A180 E		ONE HOUR	✓	463	100.000
C - A180 W		ONE HOUR	✓	1122	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	166	1049
B - A180 E	463	0	0
C - A180 W	1121	0	1

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	14	73
B - A180 E	3	0	0
C - A180 W	29	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.42	3.11	1.2	A	1115	1672
B - A180 E	0.62	11.72	1.6	B	425	637
C - A180 W	0.00	1.57	0.0	A	1030	1

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	915	915	229	0	844	0.75	3211	0.285	912	347	0.0	0.6	2.529	A
B - A180 E	349	349	87	0	0	788	1065	0.327	347	125	0.0	0.5	5.146	A
C - A180 W	845	0.75	0.19	844	0	347	2481	0.000	0.75	788	0.0	0.0	1.450	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1092	1092	273	0	1008	0.90	3210	0.340	1092	415	0.6	0.8	2.745	A
B - A180 E	416	416	104	0	0	943	964	0.432	415	149	0.5	0.8	6.741	A
C - A180 W	1009	0.90	0.22	1008	0	415	2403	0.000	0.90	943	0.0	0.0	1.497	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1338	1338	334	0	1234	1	3210	0.417	1336	506	0.8	1.1	3.103	A
B - A180 E	510	510	127	0	0	1155	826	0.617	506	183	0.8	1.6	11.471	B
C - A180 W	1235	1	0.28	1234	0	506	2299	0.000	1	1155	0.0	0.0	1.565	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1338	1338	334	0	1234	1	3210	0.417	1338	510	1.1	1.2	3.105	A
B - A180 E	510	510	127	0	0	1156	826	0.617	510	183	1.6	1.6	11.724	B
C - A180 W	1235	1	0.28	1234	0	510	2296	0.000	1	1156	0.0	0.0	1.568	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1092	1092	273	0	1008	0.90	3210	0.340	1094	420	1.2	0.8	2.748	A
B - A180 E	416	416	104	0	0	945	963	0.432	420	149	1.6	0.8	6.867	A
C - A180 W	1009	0.90	0.22	1008	0	420	2398	0.000	0.90	945	0.0	0.0	1.500	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	915	915	229	0	844	0.75	3211	0.285	915	350	0.8	0.6	2.536	A
B - A180 E	349	349	87	0	0	791	1063	0.328	350	125	0.8	0.5	5.208	A
C - A180 W	845	0.75	0.19	844	0	350	2478	0.000	0.75	791	0.0	0.0	1.454	A

2021 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	1.93	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.93	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	2	✓	38.00
B - A180 E	1155	✓	142.00
C - A180 W	175	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2021 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1412	100.000
B - A180 E		ONE HOUR	✓	159	100.000
C - A180 W		ONE HOUR	✓	931	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	362	1050
B - A180 E	157	2	0
C - A180 W	931	0	0

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	3	37
B - A180 E	9	0	0
C - A180 W	70	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.48	2.75	1.2	A	1296	1944
B - A180 E	0.21	6.02	0.3	A	146	219
C - A180 W	0.00	0.00	0.0	A	854	0

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1063	1063	266	0	701	1	3209	0.331	1061	118	0.0	0.6	2.114	A
B - A180 E	120	120	30	0	0	789	1065	0.112	119	273	0.0	0.1	4.144	A
C - A180 W	701	0	0	701	0	119	2809	0.000	0	789	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1269	1269	317	0	837	2	3209	0.396	1269	141	0.6	0.8	2.341	A
B - A180 E	143	143	36	0	0	943	964	0.148	143	327	0.1	0.2	4.771	A
C - A180 W	837	0	0	837	0	143	2781	0.000	0	943	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1555	1555	389	0	1025	2	3209	0.485	1553	172	0.8	1.2	2.744	A
B - A180 E	175	175	44	0	0	1155	826	0.212	175	400	0.2	0.3	6.010	A
C - A180 W	1025	0	0	1025	0	175	2742	0.000	0	1155	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1555	1555	389	0	1025	2	3209	0.485	1555	173	1.2	1.2	2.748	A
B - A180 E	175	175	44	0	0	1156	826	0.212	175	401	0.3	0.3	6.023	A
C - A180 W	1025	0	0	1025	0	175	2741	0.000	0	1156	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1269	1269	317	0	837	2	3209	0.396	1271	142	1.2	0.8	2.349	A
B - A180 E	143	143	36	0	0	945	963	0.148	143	328	0.3	0.2	4.784	A
C - A180 W	837	0	0	837	0	143	2780	0.000	0	945	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1063	1063	266	0	701	2	3209	0.331	1064	118	0.8	0.6	2.121	A
B - A180 E	120	120	30	0	0	791	1063	0.113	120	274	0.2	0.1	4.156	A
C - A180 W	701	0	0	701	0	120	2808	0.000	0	791	0.0	0.0	0.000	A

2025 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	4.21	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.21	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	1	✓	38.00
B - A180 E	1189	✓	142.00
C - A180 W	524	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2025 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1251	100.000
B - A180 E		ONE HOUR	✓	476	100.000
C - A180 W		ONE HOUR	✓	1156	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	171	1080
B - A180 E	476	0	0
C - A180 W	1155	0	1

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	14	73
B - A180 E	3	0	0
C - A180 W	29	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.43	3.17	1.2	A	1148	1722
B - A180 E	0.65	13.34	1.9	B	437	655
C - A180 W	0.00	1.58	0.0	A	1061	1

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	942	942	235	0	870	0.75	3211	0.293	939	356	0.0	0.7	2.559	A
B - A180 E	358	358	90	0	0	812	1046	0.343	356	128	0.0	0.5	5.360	A
C - A180 W	870	0.75	0.19	870	0	356	2468	0.000	0.75	812	0.0	0.0	1.458	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1125	1125	281	0	1038	0.90	3210	0.350	1124	427	0.7	0.9	2.788	A
B - A180 E	428	428	107	0	0	971	943	0.454	427	154	0.5	0.8	7.165	A
C - A180 W	1039	0.90	0.22	1038	0	427	2388	0.000	0.90	971	0.0	0.0	1.507	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1377	1377	344	0	1272	1	3210	0.429	1376	520	0.9	1.2	3.170	A
B - A180 E	524	524	131	0	0	1189	802	0.653	520	188	0.8	1.9	12.953	B
C - A180 W	1273	1	0.28	1272	0	520	2282	0.000	1	1189	0.0	0.0	1.577	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1377	1377	344	0	1272	1	3210	0.429	1377	524	1.2	1.2	3.172	A
B - A180 E	524	524	131	0	0	1190	802	0.654	524	188	1.9	1.9	13.335	B
C - A180 W	1273	1	0.28	1272	0	524	2278	0.000	1	1190	0.0	0.0	1.580	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1125	1125	281	0	1038	0.90	3210	0.350	1126	432	1.2	0.9	2.793	A
B - A180 E	428	428	107	0	0	973	942	0.454	432	154	1.9	0.9	7.334	A
C - A180 W	1039	0.90	0.22	1038	0	432	2382	0.000	0.90	973	0.0	0.0	1.511	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	942	942	235	0	870	0.75	3211	0.293	943	360	0.9	0.7	2.567	A
B - A180 E	358	358	90	0	0	815	1044	0.343	360	129	0.9	0.5	5.430	A
C - A180 W	870	0.75	0.19	870	0	360	2464	0.000	0.75	815	0.0	0.0	1.460	A

2025 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	1.99	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.99	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	2	✓	38.00
B - A180 E	1189	✓	142.00
C - A180 W	180	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2025 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1453	100.000
B - A180 E		ONE HOUR	✓	163	100.000
C - A180 W		ONE HOUR	✓	958	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	372	1081
B - A180 E	161	2	0
C - A180 W	958	0	0

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	3	37
B - A180 E	9	0	0
C - A180 W	70	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.50	2.83	1.3	A	1333	2000
B - A180 E	0.22	6.30	0.3	A	150	224
C - A180 W	0.00	0.00	0.0	A	879	0

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1094	1094	273	0	721	1	3209	0.341	1091	121	0.0	0.7	2.144	A
B - A180 E	123	123	31	0	0	812	1046	0.117	122	281	0.0	0.1	4.241	A
C - A180 W	721	0	0	721	0	122	2805	0.000	0	812	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1306	1306	327	0	861	2	3209	0.407	1305	145	0.7	0.9	2.387	A
B - A180 E	147	147	37	0	0	971	943	0.155	146	336	0.1	0.2	4.919	A
C - A180 W	861	0	0	861	0	146	2775	0.000	0	971	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1600	1600	400	0	1055	2	3209	0.499	1598	177	0.9	1.2	2.821	A
B - A180 E	179	179	45	0	0	1189	802	0.224	179	411	0.2	0.3	6.285	A
C - A180 W	1055	0	0	1055	0	179	2736	0.000	0	1189	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1600	1600	400	0	1055	2	3209	0.499	1600	177	1.2	1.3	2.826	A
B - A180 E	179	179	45	0	0	1190	802	0.224	179	412	0.3	0.3	6.300	A
C - A180 W	1055	0	0	1055	0	179	2735	0.000	0	1190	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1306	1306	327	0	861	2	3209	0.407	1308	145	1.3	0.9	2.393	A
B - A180 E	147	147	37	0	0	973	942	0.156	147	337	0.3	0.2	4.934	A
C - A180 W	861	0	0	861	0	147	2774	0.000	0	973	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1094	1094	273	0	721	2	3209	0.341	1095	121	0.9	0.7	2.151	A
B - A180 E	123	123	31	0	0	814	1044	0.118	123	282	0.2	0.1	4.256	A
C - A180 W	721	0	0	721	0	123	2804	0.000	0	814	0.0	0.0	0.000	A

2025 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	6.44	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.44	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	1	✓	38.00
B - A180 E	1362	✓	142.00
C - A180 W	557	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1421	100.000
B - A180 E		ONE HOUR	✓	506	100.000
C - A180 W		ONE HOUR	✓	1418	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	184	1237
B - A180 E	506	0	0
C - A180 W	1417	0	1

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	13	69
B - A180 E	3	0	0
C - A180 W	29	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.49	3.47	1.5	A	1304	1956
B - A180 E	0.81	28.30	4.2	D	464	696
C - A180 W	0.00	1.61	0.0	A	1301	1

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1070	1070	267	0	1067	0.75	3211	0.333	1067	378	0.0	0.8	2.663	A
B - A180 E	381	381	95	0	0	929	953	0.400	378	138	0.0	0.7	6.418	A
C - A180 W	1068	0.75	0.19	1067	0	378	2438	0.000	0.75	929	0.0	0.0	1.476	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1277	1277	319	0	1274	0.90	3210	0.398	1276	453	0.8	1.0	2.954	A
B - A180 E	455	455	114	0	0	1112	840	0.541	453	165	0.7	1.2	9.524	A
C - A180 W	1275	0.90	0.22	1274	0	453	2354	0.000	0.90	1112	0.0	0.0	1.529	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1565	1565	391	0	1560	1	3210	0.487	1563	546	1.0	1.5	3.467	A
B - A180 E	557	557	139	0	0	1361	685	0.813	546	202	1.2	3.9	24.958	C
C - A180 W	1561	1	0.28	1560	0	546	2249	0.000	1	1361	0.0	0.0	1.601	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1565	1565	391	0	1560	1	3210	0.487	1565	556	1.5	1.5	3.473	A
B - A180 E	557	557	139	0	0	1363	684	0.814	556	203	3.9	4.2	28.302	D
C - A180 W	1561	1	0.28	1560	0	556	2238	0.000	1	1363	0.0	0.0	1.608	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1277	1277	319	0	1274	0.90	3210	0.398	1279	467	1.5	1.1	2.964	A
B - A180 E	455	455	114	0	0	1115	839	0.542	467	166	4.2	1.2	10.263	B
C - A180 W	1275	0.90	0.22	1274	0	467	2339	0.000	0.90	1115	0.0	0.0	1.539	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1070	1070	267	0	1067	0.75	3211	0.333	1071	383	1.1	0.8	2.674	A
B - A180 E	381	381	95	0	0	933	951	0.401	383	139	1.2	0.7	6.555	A
C - A180 W	1068	0.75	0.19	1067	0	383	2433	0.000	0.75	933	0.0	0.0	1.479	A

2025 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	2.71	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.71	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	2	✓	38.00
B - A180 E	1362	✓	142.00
C - A180 W	196	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1808	100.000
B - A180 E		ONE HOUR	✓	178	100.000
C - A180 W		ONE HOUR	✓	1165	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	415	1393
B - A180 E	176	2	0
C - A180 W	1165	0	0

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	3	35
B - A180 E	8	0	0
C - A180 W	67	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.62	3.72	2.0	A	1659	2489
B - A180 E	0.34	10.15	0.5	B	163	245
C - A180 W	0.00	0.00	0.0	A	1069	0

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1361	1361	340	0	877	1	3209	0.424	1357	132	0.0	0.9	2.444	A
B - A180 E	134	134	34	0	0	1046	881	0.152	133	313	0.0	0.2	5.188	A
C - A180 W	877	0	0	877	0	133	2788	0.000	0	1046	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1625	1625	406	0	1047	2	3209	0.506	1624	158	0.9	1.3	2.859	A
B - A180 E	160	160	40	0	0	1251	754	0.212	160	375	0.2	0.3	6.533	A
C - A180 W	1047	0	0	1047	0	160	2756	0.000	0	1251	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1991	1991	498	0	1283	2	3209	0.620	1988	193	1.3	2.0	3.706	A
B - A180 E	196	196	49	0	0	1531	580	0.338	195	458	0.3	0.5	10.061	B
C - A180 W	1283	0	0	1283	0	195	2713	0.000	0	1531	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1991	1991	498	0	1283	2	3209	0.620	1991	194	2.0	2.0	3.723	A
B - A180 E	196	196	49	0	0	1534	579	0.339	196	459	0.5	0.5	10.148	B
C - A180 W	1283	0	0	1283	0	196	2712	0.000	0	1534	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1625	1625	406	0	1047	2	3209	0.506	1628	159	2.0	1.3	2.876	A
B - A180 E	160	160	40	0	0	1255	752	0.213	161	376	0.5	0.3	6.586	A
C - A180 W	1047	0	0	1047	0	161	2754	0.000	0	1255	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1361	1361	340	0	877	2	3209	0.424	1363	133	1.3	0.9	2.457	A
B - A180 E	134	134	34	0	0	1050	879	0.153	134	314	0.3	0.2	5.221	A
C - A180 W	877	0	0	877	0	134	2786	0.000	0	1050	0.0	0.0	0.000	A

2025 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	6.78	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.78	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	1	✓	38.00
B - A180 E	1379	✓	142.00
C - A180 W	557	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1437	100.000
B - A180 E		ONE HOUR	✓	506	100.000
C - A180 W		ONE HOUR	✓	1447	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	184	1253
B - A180 E	506	0	0
C - A180 W	1446	0	1

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	13	70
B - A180 E	3	0	0
C - A180 W	30	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.49	3.53	1.5	A	1319	1978
B - A180 E	0.83	30.82	4.5	D	464	696
C - A180 W	0.00	1.61	0.0	A	1328	1

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1082	1082	270	0	1089	0.75	3211	0.337	1079	378	0.0	0.8	2.693	A
B - A180 E	381	381	95	0	0	941	944	0.403	378	138	0.0	0.7	6.518	A
C - A180 W	1089	0.75	0.19	1089	0	378	2438	0.000	0.75	941	0.0	0.0	1.476	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1292	1292	323	0	1300	0.90	3210	0.402	1291	453	0.8	1.1	2.993	A
B - A180 E	455	455	114	0	0	1126	830	0.548	453	165	0.7	1.2	9.773	A
C - A180 W	1301	0.90	0.22	1300	0	453	2354	0.000	0.90	1126	0.0	0.0	1.529	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1582	1582	396	0	1592	1	3210	0.493	1580	545	1.1	1.5	3.524	A
B - A180 E	557	557	139	0	0	1379	674	0.827	545	202	1.2	4.2	26.694	D
C - A180 W	1593	1	0.28	1592	0	545	2250	0.000	1	1379	0.0	0.0	1.600	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1582	1582	396	0	1592	1	3210	0.493	1582	556	1.5	1.5	3.530	A
B - A180 E	557	557	139	0	0	1381	673	0.828	556	203	4.2	4.5	30.816	D
C - A180 W	1593	1	0.28	1592	0	556	2238	0.000	1	1381	0.0	0.0	1.608	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1292	1292	323	0	1300	0.90	3210	0.402	1294	468	1.5	1.1	3.003	A
B - A180 E	455	455	114	0	0	1129	828	0.549	468	166	4.5	1.3	10.631	B
C - A180 W	1301	0.90	0.22	1300	0	468	2337	0.000	0.90	1129	0.0	0.0	1.542	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1082	1082	270	0	1089	0.75	3211	0.337	1083	383	1.1	0.8	2.702	A
B - A180 E	381	381	95	0	0	945	942	0.404	383	139	1.3	0.7	6.661	A
C - A180 W	1089	0.75	0.19	1089	0	383	2433	0.000	0.75	945	0.0	0.0	1.481	A

2025 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	2.76	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.76	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	2	✓	38.00
B - A180 E	1558	✓	142.00
C - A180 W	196	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1831	100.000
B - A180 E		ONE HOUR	✓	178	100.000
C - A180 W		ONE HOUR	✓	1203	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	415	1416
B - A180 E	176	2	0
C - A180 W	1203	0	0

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	3	35
B - A180 E	8	0	0
C - A180 W	68	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.63	3.81	2.1	A	1680	2520
B - A180 E	0.35	10.60	0.6	B	163	245
C - A180 W	0.00	0.00	0.0	A	1104	0

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1378	1378	345	0	906	1	3209	0.430	1375	132	0.0	0.9	2.469	A
B - A180 E	134	134	34	0	0	1063	856	0.157	133	313	0.0	0.2	5.372	A
C - A180 W	906	0	0	906	0	133	2788	0.000	0	1063	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1646	1646	412	0	1081	2	3209	0.513	1645	158	0.9	1.3	2.899	A
B - A180 E	160	160	40	0	0	1272	732	0.219	160	375	0.2	0.3	6.780	A
C - A180 W	1081	0	0	1081	0	160	2756	0.000	0	1272	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	2016	2016	504	0	1325	2	3209	0.628	2013	193	1.3	2.1	3.787	A
B - A180 E	196	196	49	0	0	1557	564	0.348	195	458	0.3	0.6	10.500	B
C - A180 W	1325	0	0	1325	0	195	2713	0.000	0	1557	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	2016	2016	504	0	1325	2	3209	0.628	2016	194	2.1	2.1	3.805	A
B - A180 E	196	196	49	0	0	1559	562	0.348	196	459	0.6	0.6	10.599	B
C - A180 W	1325	0	0	1325	0	196	2712	0.000	0	1559	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1646	1646	412	0	1081	2	3209	0.513	1649	159	2.1	1.3	2.918	A
B - A180 E	160	160	40	0	0	1275	730	0.219	161	376	0.6	0.3	6.838	A
C - A180 W	1081	0	0	1081	0	161	2754	0.000	0	1275	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1378	1378	345	0	906	2	3209	0.430	1380	133	1.3	1.0	2.483	A
B - A180 E	134	134	34	0	0	1067	853	0.157	134	314	0.3	0.2	5.409	A
C - A180 W	906	0	0	906	0	134	2786	0.000	0	1067	0.0	0.0	0.000	A

2032 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	4.90	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.90	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	1	✓	38.00
B - A180 E	1244	✓	142.00
C - A180 W	548	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2032 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1309	100.000
B - A180 E		ONE HOUR	✓	498	100.000
C - A180 W		ONE HOUR	✓	1209	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	179	1130
B - A180 E	498	0	0
C - A180 W	1208	0	1

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	14	73
B - A180 E	3	0	0
C - A180 W	29	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.45	3.29	1.3	A	1201	1802
B - A180 E	0.72	17.15	2.5	C	457	685
C - A180 W	0.00	1.60	0.0	A	1109	1

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	985	985	246	0	909	0.75	3211	0.307	983	373	0.0	0.7	2.607	A
B - A180 E	375	375	94	0	0	849	1016	0.369	373	134	0.0	0.6	5.744	A
C - A180 W	910	0.75	0.19	909	0	373	2446	0.000	0.75	849	0.0	0.0	1.471	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1177	1177	294	0	1086	0.90	3210	0.367	1176	446	0.7	0.9	2.857	A
B - A180 E	448	448	112	0	0	1016	909	0.492	446	161	0.6	1.0	7.977	A
C - A180 W	1087	0.90	0.22	1086	0	446	2363	0.000	0.90	1016	0.0	0.0	1.523	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1441	1441	360	0	1330	1	3210	0.449	1440	542	0.9	1.3	3.282	A
B - A180 E	548	548	137	0	0	1244	764	0.718	542	197	1.0	2.5	16.305	C
C - A180 W	1331	1	0.28	1330	0	542	2254	0.000	1	1244	0.0	0.0	1.597	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1441	1441	360	0	1330	1	3210	0.449	1441	548	1.3	1.3	3.287	A
B - A180 E	548	548	137	0	0	1245	763	0.718	548	197	2.5	2.5	17.154	C
C - A180 W	1331	1	0.28	1330	0	548	2248	0.000	1	1245	0.0	0.0	1.601	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1177	1177	294	0	1086	0.90	3210	0.367	1178	454	1.3	0.9	2.863	A
B - A180 E	448	448	112	0	0	1018	908	0.493	454	161	2.5	1.0	8.268	A
C - A180 W	1087	0.90	0.22	1086	0	454	2354	0.000	0.90	1018	0.0	0.0	1.529	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	985	985	246	0	909	0.75	3211	0.307	986	377	0.9	0.7	2.615	A
B - A180 E	375	375	94	0	0	852	1014	0.370	377	135	1.0	0.6	5.833	A
C - A180 W	910	0.75	0.19	909	0	377	2442	0.000	0.75	852	0.0	0.0	1.476	A

2032 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	2.10	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.10	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	2	✓	38.00
B - A180 E	1242	✓	142.00
C - A180 W	188	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2032 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1518	100.000
B - A180 E		ONE HOUR	✓	171	100.000
C - A180 W		ONE HOUR	✓	1001	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	389	1129
B - A180 E	169	2	0
C - A180 W	1001	0	0

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	3	37
B - A180 E	9	0	0
C - A180 W	70	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.52	2.96	1.4	A	1393	2089
B - A180 E	0.25	6.80	0.4	A	157	235
C - A180 W	0.00	0.00	0.0	A	919	0

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1143	1143	286	0	754	1	3209	0.356	1140	127	0.0	0.7	2.194	A
B - A180 E	129	129	32	0	0	848	1017	0.127	128	294	0.0	0.2	4.408	A
C - A180 W	754	0	0	754	0	128	2796	0.000	0	848	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1365	1365	341	0	900	2	3209	0.425	1364	152	0.7	0.9	2.463	A
B - A180 E	154	154	38	0	0	1014	911	0.169	153	351	0.2	0.2	5.175	A
C - A180 W	900	0	0	900	0	153	2765	0.000	0	1014	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1671	1671	418	0	1102	2	3209	0.521	1670	186	0.9	1.4	2.952	A
B - A180 E	188	188	47	0	0	1242	766	0.246	188	430	0.2	0.4	6.778	A
C - A180 W	1102	0	0	1102	0	188	2723	0.000	0	1242	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1671	1671	418	0	1102	2	3209	0.521	1671	186	1.4	1.4	2.957	A
B - A180 E	188	188	47	0	0	1243	765	0.246	188	430	0.4	0.4	6.798	A
C - A180 W	1102	0	0	1102	0	188	2723	0.000	0	1243	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1365	1365	341	0	900	2	3209	0.425	1366	152	1.4	0.9	2.471	A
B - A180 E	154	154	38	0	0	1016	909	0.169	154	352	0.4	0.2	5.193	A
C - A180 W	900	0	0	900	0	154	2764	0.000	0	1016	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1143	1143	286	0	754	2	3209	0.356	1144	127	0.9	0.7	2.202	A
B - A180 E	129	129	32	0	0	851	1015	0.127	129	295	0.2	0.2	4.426	A
C - A180 W	754	0	0	754	0	129	2795	0.000	0	851	0.0	0.0	0.000	A

2032 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	9.36	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.36	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	1	✓	38.00
B - A180 E	1417	✓	142.00
C - A180 W	581	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1478	100.000
B - A180 E		ONE HOUR	✓	528	100.000
C - A180 W		ONE HOUR	✓	1472	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	192	1286
B - A180 E	528	0	0
C - A180 W	1471	0	1

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	13	69
B - A180 E	3	0	0
C - A180 W	29	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.51	3.61	1.6	A	1356	2034
B - A180 E	0.89	47.04	7.1	E	485	727
C - A180 W	0.00	1.63	0.0	A	1351	1

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1113	1113	278	0	1107	0.75	3211	0.347	1109	394	0.0	0.8	2.715	A
B - A180 E	398	398	99	0	0	966	926	0.429	394	144	0.0	0.8	6.942	A
C - A180 W	1108	0.75	0.19	1107	0	394	2417	0.000	0.75	966	0.0	0.0	1.489	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1329	1329	332	0	1322	0.90	3210	0.414	1328	472	0.8	1.1	3.034	A
B - A180 E	475	475	119	0	0	1156	809	0.586	472	172	0.8	1.4	10.906	B
C - A180 W	1323	0.90	0.22	1322	0	472	2329	0.000	0.90	1156	0.0	0.0	1.545	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1627	1627	407	0	1620	1	3210	0.507	1625	562	1.1	1.6	3.601	A
B - A180 E	581	581	145	0	0	1415	651	0.893	562	211	1.4	6.2	36.262	E
C - A180 W	1621	1	0.28	1620	0	562	2228	0.000	1	1415	0.0	0.0	1.615	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1627	1627	407	0	1620	1	3210	0.507	1627	578	1.6	1.6	3.610	A
B - A180 E	581	581	145	0	0	1417	650	0.895	578	211	6.2	7.1	47.038	E
C - A180 W	1621	1	0.28	1620	0	578	2211	0.001	1	1417	0.0	0.0	1.628	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1329	1329	332	0	1322	0.90	3210	0.414	1331	497	1.6	1.1	3.043	A
B - A180 E	475	475	119	0	0	1159	808	0.588	497	173	7.1	1.5	12.736	B
C - A180 W	1323	0.90	0.22	1322	0	497	2301	0.000	0.90	1159	0.0	0.0	1.566	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1113	1113	278	0	1107	0.75	3211	0.347	1114	400	1.1	0.8	2.729	A
B - A180 E	398	398	99	0	0	970	923	0.431	400	145	1.5	0.8	7.131	A
C - A180 W	1108	0.75	0.19	1107	0	400	2410	0.000	0.75	970	0.0	0.0	1.493	A

2032 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	2.91	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.91	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	2	✓	38.00
B - A180 E	1586	✓	142.00
C - A180 W	204	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1874	100.000
B - A180 E		ONE HOUR	✓	185	100.000
C - A180 W		ONE HOUR	✓	1208	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	432	1442
B - A180 E	183	2	0
C - A180 W	1208	0	0

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	3	35
B - A180 E	8	0	0
C - A180 W	67	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.64	3.96	2.3	A	1720	2579
B - A180 E	0.37	11.36	0.6	B	170	255
C - A180 W	0.00	0.00	0.0	A	1108	0

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1411	1411	353	0	909	1	3209	0.440	1407	137	0.0	1.0	2.511	A
B - A180 E	139	139	35	0	0	1083	842	0.165	138	326	0.0	0.2	5.514	A
C - A180 W	909	0	0	909	0	138	2780	0.000	0	1083	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1685	1685	421	0	1086	2	3209	0.525	1683	164	1.0	1.4	2.969	A
B - A180 E	166	166	42	0	0	1295	717	0.232	166	390	0.2	0.3	7.039	A
C - A180 W	1086	0	0	1086	0	166	2747	0.000	0	1295	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	2063	2063	516	0	1330	2	3209	0.643	2060	200	1.4	2.2	3.936	A
B - A180 E	204	204	51	0	0	1585	547	0.372	202	477	0.3	0.6	11.234	B
C - A180 W	1330	0	0	1330	0	202	2703	0.000	0	1585	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	2063	2063	516	0	1330	2	3209	0.643	2063	201	2.2	2.3	3.959	A
B - A180 E	204	204	51	0	0	1588	545	0.373	204	478	0.6	0.6	11.362	B
C - A180 W	1330	0	0	1330	0	204	2701	0.000	0	1588	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1685	1685	421	0	1086	2	3209	0.525	1688	166	2.3	1.4	2.987	A
B - A180 E	166	166	42	0	0	1299	715	0.233	168	391	0.6	0.3	7.110	A
C - A180 W	1086	0	0	1086	0	168	2745	0.000	0	1299	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1411	1411	353	0	909	2	3209	0.440	1412	138	1.4	1.0	2.527	A
B - A180 E	139	139	35	0	0	1087	839	0.166	140	327	0.3	0.2	5.554	A
C - A180 W	909	0	0	909	0	140	2778	0.000	0	1087	0.0	0.0	0.000	A

2032 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	10.24	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.24	B

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	1	✓	38.00
B - A180 E	1434	✓	142.00
C - A180 W	581	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1495	100.000
B - A180 E		ONE HOUR	✓	528	100.000
C - A180 W		ONE HOUR	✓	1500	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	192	1303
B - A180 E	528	0	0
C - A180 W	1499	0	1

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	13	70
B - A180 E	3	0	0
C - A180 W	30	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.51	3.67	1.7	A	1372	2058
B - A180 E	0.91	53.33	8.0	F	485	727
C - A180 W	0.00	1.63	0.0	A	1376	1

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1126	1126	281	0	1129	0.75	3211	0.351	1122	394	0.0	0.9	2.747	A
B - A180 E	398	398	99	0	0	979	916	0.434	394	144	0.0	0.8	7.064	A
C - A180 W	1129	0.75	0.19	1129	0	394	2417	0.000	0.75	979	0.0	0.0	1.489	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1344	1344	336	0	1348	0.90	3210	0.419	1343	472	0.9	1.1	3.076	A
B - A180 E	475	475	119	0	0	1171	799	0.594	472	172	0.8	1.5	11.240	B
C - A180 W	1348	0.90	0.22	1348	0	472	2330	0.000	0.90	1171	0.0	0.0	1.545	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1646	1646	412	0	1650	1	3210	0.513	1644	560	1.1	1.7	3.665	A
B - A180 E	581	581	145	0	0	1434	639	0.910	560	211	1.5	6.8	39.522	E
C - A180 W	1652	1	0.28	1650	0	560	2231	0.000	1	1434	0.0	0.0	1.613	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1646	1646	412	0	1650	1	3210	0.513	1646	576	1.7	1.7	3.673	A
B - A180 E	581	581	145	0	0	1436	638	0.911	576	211	6.8	8.0	53.330	F
C - A180 W	1652	1	0.28	1650	0	576	2212	0.001	1	1436	0.0	0.0	1.627	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1344	1344	336	0	1348	0.90	3210	0.419	1346	500	1.7	1.2	3.085	A
B - A180 E	475	475	119	0	0	1174	797	0.595	500	173	8.0	1.6	13.521	B
C - A180 W	1348	0.90	0.22	1348	0	500	2297	0.000	0.90	1174	0.0	0.0	1.566	A

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1126	1126	281	0	1129	0.75	3211	0.351	1127	401	1.2	0.9	2.759	A
B - A180 E	398	398	99	0	0	983	914	0.435	401	145	1.6	0.8	7.263	A
C - A180 W	1129	0.75	0.19	1129	0	401	2410	0.000	0.75	983	0.0	0.0	1.493	A

2032 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	2.97	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.97	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	2	✓	38.00
B - A180 E	1612	✓	142.00
C - A180 W	204	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1897	100.000
B - A180 E		ONE HOUR	✓	185	100.000
C - A180 W		ONE HOUR	✓	1246	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	432	1465
B - A180 E	183	2	0
C - A180 W	1246	0	0

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	3	35
B - A180 E	8	0	0
C - A180 W	68	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.65	4.05	2.3	A	1741	2611
B - A180 E	0.38	11.87	0.7	B	170	255
C - A180 W	0.00	0.00	0.0	A	1143	0

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1428	1428	357	0	938	1	3209	0.445	1424	137	0.0	1.0	2.537	A
B - A180 E	139	139	35	0	0	1100	830	0.168	138	326	0.0	0.2	5.609	A
C - A180 W	938	0	0	938	0	138	2780	0.000	0	1100	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1705	1705	426	0	1120	2	3209	0.531	1704	164	1.0	1.4	3.012	A
B - A180 E	166	166	42	0	0	1316	704	0.236	166	390	0.2	0.3	7.210	A
C - A180 W	1120	0	0	1120	0	166	2747	0.000	0	1316	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	2089	2089	522	0	1372	2	3209	0.651	2085	200	1.4	2.3	4.026	A
B - A180 E	204	204	51	0	0	1610	532	0.383	202	477	0.3	0.7	11.726	B
C - A180 W	1372	0	0	1372	0	202	2703	0.000	0	1610	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	2089	2089	522	0	1372	2	3209	0.651	2089	201	2.3	2.3	4.052	A
B - A180 E	204	204	51	0	0	1613	531	0.384	204	478	0.7	0.7	11.870	B
C - A180 W	1372	0	0	1372	0	204	2701	0.000	0	1613	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1705	1705	426	0	1120	2	3209	0.531	1709	166	2.3	1.4	3.034	A
B - A180 E	166	166	42	0	0	1320	702	0.237	168	391	0.7	0.3	7.291	A
C - A180 W	1120	0	0	1120	0	168	2745	0.000	0	1320	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1428	1428	357	0	938	2	3209	0.445	1430	138	1.4	1.0	2.552	A
B - A180 E	139	139	35	0	0	1104	827	0.168	140	327	0.3	0.2	5.654	A
C - A180 W	938	0	0	938	0	140	2778	0.000	0	1104	0.0	0.0	0.000	A



Appendix TN2 R

A160/ A180 Stena AM Junction Assessment Results

<h1>Junctions 10</h1>
<h2>ARCADY 10 - Roundabout Module</h2>
Version: 10.0.4.1693 © Copyright TRL Software Limited, 2021
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Filename: A160-A180.j10
Path: P:\23000's\23325\Junction Assessment\1 Base Assessment - Stena AM
Report generation date: 19/10/2023 09:50:16

- »2021 Base, AM
- »2021 Base, PM
- »2025 Base, AM
- »2025 Base, PM
- »2025 Base + Committed, AM
- »2025 Base + Committed, PM
- »2025 Base + Committed + Development, AM
- »2025 Base + Committed + Development, PM
- »2032 Base, AM
- »2032 Base, PM
- »2032 Base + Committed, AM
- »2032 Base + Committed, PM
- »2032 Base + Committed + Development, AM
- »2032 Base + Committed + Development, PM

Summary of junction performance

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Base						
A - A160	1.2	3.11	0.42	1.2	2.75	0.48
B - A180 E	1.6	11.72	0.62	0.3	6.02	0.21
C - A180 W	0.0	1.57	0.00	0.0	0.00	0.00
2025 Base						
A - A160	1.2	3.17	0.43	1.3	2.83	0.50
B - A180 E	1.9	13.34	0.65	0.3	6.30	0.22
C - A180 W	0.0	1.58	0.00	0.0	0.00	0.00
2025 Base + Committed						
A - A160	1.5	3.47	0.49	2.0	3.72	0.62
B - A180 E	4.2	28.30	0.81	0.5	10.15	0.34
C - A180 W	0.0	1.61	0.00	0.0	0.00	0.00
2025 Base + Committed + Development						
A - A160	1.5	3.52	0.49	2.1	3.81	0.63
B - A180 E	4.4	30.15	0.82	0.6	10.60	0.35
C - A180 W	0.0	1.61	0.00	0.0	0.00	0.00
2032 Base						
A - A160	1.3	3.29	0.45	1.4	2.96	0.52
B - A180 E	2.5	17.15	0.72	0.4	6.80	0.25
C - A180 W	0.0	1.60	0.00	0.0	0.00	0.00
2032 Base + Committed						
A - A160	1.6	3.61	0.51	2.3	3.96	0.64
B - A180 E	7.1	47.04	0.89	0.6	11.36	0.37
C - A180 W	0.0	1.63	0.00	0.0	0.00	0.00
2032 Base + Committed + Development						
A - A160	1.7	3.66	0.51	2.3	4.05	0.65
B - A180 E	7.8	51.75	0.91	0.7	11.87	0.38
C - A180 W	0.0	1.63	0.00	0.0	0.00	0.00

Values shown are the highest values encountered over all time segments. Delay is the maximum value of Av. delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	18/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\Arcady
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

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	2021 Base	AM	ONE HOUR	06:45	08:15	15	✓
D2	2021 Base	PM	ONE HOUR	15:45	17:15	15	✓
D3	2025 Base	AM	ONE HOUR	06:45	08:15	15	✓
D4	2025 Base	PM	ONE HOUR	15:45	17:15	15	✓
D5	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D6	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D7	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D8	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓
D9	2032 Base	AM	ONE HOUR	06:45	08:15	15	✓
D10	2032 Base	PM	ONE HOUR	15:45	17:15	15	✓
D11	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D12	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D13	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D14	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2021 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	3.91	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.91	A

Arms

Arms

Arm	Name	Description	No give-way line
A	A160		
B	A180 E		
C	A180 W		

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
A - A160	7.12	8.39	15.0	37.9	103.5	41.0		
B - A180 E	3.80	4.80	5.0	25.9	102.0	44.0		
C - A180 W	4.81	8.20	30.0	75.4	102.0	4.0		

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	1	✓	38.00
B - A180 E	1155	✓	142.00
C - A180 W	509	✓	170.00

Bypass

Arm	Arm has bypass	Bypass Util (%)
A - A160		
B - A180 E		
C - A180 W	✓	100

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A160	1.169	3211
B - A180 E	0.650	1578
C - A180 W	1.140	2877

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	2021 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1215	100.000
B - A180 E		ONE HOUR	✓	463	100.000
C - A180 W		ONE HOUR	✓	1122	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	166	1049
B - A180 E	463	0	0
C - A180 W	1121	0	1

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	14	73
B - A180 E	3	0	0
C - A180 W	29	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.42	3.11	1.2	A	1115	1672
B - A180 E	0.62	11.72	1.6	B	425	637
C - A180 W	0.00	1.57	0.0	A	1030	1

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	915	915	229	0	844	0.75	3211	0.285	912	347	0.0	0.6	2.529	A
B - A180 E	349	349	87	0	0	788	1065	0.327	347	125	0.0	0.5	5.146	A
C - A180 W	845	0.75	0.19	844	0	347	2481	0.000	0.75	788	0.0	0.0	1.450	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1092	1092	273	0	1008	0.90	3210	0.340	1092	415	0.6	0.8	2.745	A
B - A180 E	416	416	104	0	0	943	964	0.432	415	149	0.5	0.8	6.741	A
C - A180 W	1009	0.90	0.22	1008	0	415	2403	0.000	0.90	943	0.0	0.0	1.497	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1338	1338	334	0	1234	1	3210	0.417	1336	506	0.8	1.1	3.103	A
B - A180 E	510	510	127	0	0	1155	826	0.617	506	183	0.8	1.6	11.471	B
C - A180 W	1235	1	0.28	1234	0	506	2299	0.000	1	1155	0.0	0.0	1.565	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1338	1338	334	0	1234	1	3210	0.417	1338	510	1.1	1.2	3.105	A
B - A180 E	510	510	127	0	0	1156	826	0.617	510	183	1.6	1.6	11.724	B
C - A180 W	1235	1	0.28	1234	0	510	2296	0.000	1	1156	0.0	0.0	1.568	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1092	1092	273	0	1008	0.90	3210	0.340	1094	420	1.2	0.8	2.748	A
B - A180 E	416	416	104	0	0	945	963	0.432	420	149	1.6	0.8	6.867	A
C - A180 W	1009	0.90	0.22	1008	0	420	2398	0.000	0.90	945	0.0	0.0	1.500	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	915	915	229	0	844	0.75	3211	0.285	915	350	0.8	0.6	2.536	A
B - A180 E	349	349	87	0	0	791	1063	0.328	350	125	0.8	0.5	5.208	A
C - A180 W	845	0.75	0.19	844	0	350	2478	0.000	0.75	791	0.0	0.0	1.454	A

2021 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	1.93	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.93	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	2	✓	38.00
B - A180 E	1155	✓	142.00
C - A180 W	175	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2021 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1412	100.000
B - A180 E		ONE HOUR	✓	159	100.000
C - A180 W		ONE HOUR	✓	931	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	362	1050
B - A180 E	157	2	0
C - A180 W	931	0	0

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	3	37
B - A180 E	9	0	0
C - A180 W	70	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.48	2.75	1.2	A	1296	1944
B - A180 E	0.21	6.02	0.3	A	146	219
C - A180 W	0.00	0.00	0.0	A	854	0

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1063	1063	266	0	701	1	3209	0.331	1061	118	0.0	0.6	2.114	A
B - A180 E	120	120	30	0	0	789	1065	0.112	119	273	0.0	0.1	4.144	A
C - A180 W	701	0	0	701	0	119	2809	0.000	0	789	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1269	1269	317	0	837	2	3209	0.396	1269	141	0.6	0.8	2.341	A
B - A180 E	143	143	36	0	0	943	964	0.148	143	327	0.1	0.2	4.771	A
C - A180 W	837	0	0	837	0	143	2781	0.000	0	943	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1555	1555	389	0	1025	2	3209	0.485	1553	172	0.8	1.2	2.744	A
B - A180 E	175	175	44	0	0	1155	826	0.212	175	400	0.2	0.3	6.010	A
C - A180 W	1025	0	0	1025	0	175	2742	0.000	0	1155	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1555	1555	389	0	1025	2	3209	0.485	1555	173	1.2	1.2	2.748	A
B - A180 E	175	175	44	0	0	1156	826	0.212	175	401	0.3	0.3	6.023	A
C - A180 W	1025	0	0	1025	0	175	2741	0.000	0	1156	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1269	1269	317	0	837	2	3209	0.396	1271	142	1.2	0.8	2.349	A
B - A180 E	143	143	36	0	0	945	963	0.148	143	328	0.3	0.2	4.784	A
C - A180 W	837	0	0	837	0	143	2780	0.000	0	945	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1063	1063	266	0	701	2	3209	0.331	1064	118	0.8	0.6	2.121	A
B - A180 E	120	120	30	0	0	791	1063	0.113	120	274	0.2	0.1	4.156	A
C - A180 W	701	0	0	701	0	120	2808	0.000	0	791	0.0	0.0	0.000	A

2025 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	4.21	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.21	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	1	✓	38.00
B - A180 E	1189	✓	142.00
C - A180 W	524	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2025 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1251	100.000
B - A180 E		ONE HOUR	✓	476	100.000
C - A180 W		ONE HOUR	✓	1156	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	171	1080
B - A180 E	476	0	0
C - A180 W	1155	0	1

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	14	73
B - A180 E	3	0	0
C - A180 W	29	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.43	3.17	1.2	A	1148	1722
B - A180 E	0.65	13.34	1.9	B	437	655
C - A180 W	0.00	1.58	0.0	A	1061	1

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	942	942	235	0	870	0.75	3211	0.293	939	356	0.0	0.7	2.559	A
B - A180 E	358	358	90	0	0	812	1046	0.343	356	128	0.0	0.5	5.360	A
C - A180 W	870	0.75	0.19	870	0	356	2468	0.000	0.75	812	0.0	0.0	1.458	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1125	1125	281	0	1038	0.90	3210	0.350	1124	427	0.7	0.9	2.788	A
B - A180 E	428	428	107	0	0	971	943	0.454	427	154	0.5	0.8	7.165	A
C - A180 W	1039	0.90	0.22	1038	0	427	2388	0.000	0.90	971	0.0	0.0	1.507	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1377	1377	344	0	1272	1	3210	0.429	1376	520	0.9	1.2	3.170	A
B - A180 E	524	524	131	0	0	1189	802	0.653	520	188	0.8	1.9	12.953	B
C - A180 W	1273	1	0.28	1272	0	520	2282	0.000	1	1189	0.0	0.0	1.577	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1377	1377	344	0	1272	1	3210	0.429	1377	524	1.2	1.2	3.172	A
B - A180 E	524	524	131	0	0	1190	802	0.654	524	188	1.9	1.9	13.335	B
C - A180 W	1273	1	0.28	1272	0	524	2278	0.000	1	1190	0.0	0.0	1.580	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1125	1125	281	0	1038	0.90	3210	0.350	1126	432	1.2	0.9	2.793	A
B - A180 E	428	428	107	0	0	973	942	0.454	432	154	1.9	0.9	7.334	A
C - A180 W	1039	0.90	0.22	1038	0	432	2382	0.000	0.90	973	0.0	0.0	1.511	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	942	942	235	0	870	0.75	3211	0.293	943	360	0.9	0.7	2.567	A
B - A180 E	358	358	90	0	0	815	1044	0.343	360	129	0.9	0.5	5.430	A
C - A180 W	870	0.75	0.19	870	0	360	2464	0.000	0.75	815	0.0	0.0	1.460	A

2025 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	1.99	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.99	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	2	✓	38.00
B - A180 E	1189	✓	142.00
C - A180 W	180	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2025 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1453	100.000
B - A180 E		ONE HOUR	✓	163	100.000
C - A180 W		ONE HOUR	✓	958	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	372	1081
B - A180 E	161	2	0
C - A180 W	958	0	0

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	3	37
B - A180 E	9	0	0
C - A180 W	70	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.50	2.83	1.3	A	1333	2000
B - A180 E	0.22	6.30	0.3	A	150	224
C - A180 W	0.00	0.00	0.0	A	879	0

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1094	1094	273	0	721	1	3209	0.341	1091	121	0.0	0.7	2.144	A
B - A180 E	123	123	31	0	0	812	1046	0.117	122	281	0.0	0.1	4.241	A
C - A180 W	721	0	0	721	0	122	2805	0.000	0	812	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1306	1306	327	0	861	2	3209	0.407	1305	145	0.7	0.9	2.387	A
B - A180 E	147	147	37	0	0	971	943	0.155	146	336	0.1	0.2	4.919	A
C - A180 W	861	0	0	861	0	146	2775	0.000	0	971	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1600	1600	400	0	1055	2	3209	0.499	1598	177	0.9	1.2	2.821	A
B - A180 E	179	179	45	0	0	1189	802	0.224	179	411	0.2	0.3	6.285	A
C - A180 W	1055	0	0	1055	0	179	2736	0.000	0	1189	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1600	1600	400	0	1055	2	3209	0.499	1600	177	1.2	1.3	2.826	A
B - A180 E	179	179	45	0	0	1190	802	0.224	179	412	0.3	0.3	6.300	A
C - A180 W	1055	0	0	1055	0	179	2735	0.000	0	1190	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1306	1306	327	0	861	2	3209	0.407	1308	145	1.3	0.9	2.393	A
B - A180 E	147	147	37	0	0	973	942	0.156	147	337	0.3	0.2	4.934	A
C - A180 W	861	0	0	861	0	147	2774	0.000	0	973	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1094	1094	273	0	721	2	3209	0.341	1095	121	0.9	0.7	2.151	A
B - A180 E	123	123	31	0	0	814	1044	0.118	123	282	0.2	0.1	4.256	A
C - A180 W	721	0	0	721	0	123	2804	0.000	0	814	0.0	0.0	0.000	A

2025 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	6.44	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.44	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	1	✓	38.00
B - A180 E	1362	✓	142.00
C - A180 W	557	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1421	100.000
B - A180 E		ONE HOUR	✓	506	100.000
C - A180 W		ONE HOUR	✓	1418	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	184	1237
B - A180 E	506	0	0
C - A180 W	1417	0	1

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	13	69
B - A180 E	3	0	0
C - A180 W	29	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.49	3.47	1.5	A	1304	1956
B - A180 E	0.81	28.30	4.2	D	464	696
C - A180 W	0.00	1.61	0.0	A	1301	1

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1070	1070	267	0	1067	0.75	3211	0.333	1067	378	0.0	0.8	2.663	A
B - A180 E	381	381	95	0	0	929	953	0.400	378	138	0.0	0.7	6.418	A
C - A180 W	1068	0.75	0.19	1067	0	378	2438	0.000	0.75	929	0.0	0.0	1.476	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1277	1277	319	0	1274	0.90	3210	0.398	1276	453	0.8	1.0	2.954	A
B - A180 E	455	455	114	0	0	1112	840	0.541	453	165	0.7	1.2	9.524	A
C - A180 W	1275	0.90	0.22	1274	0	453	2354	0.000	0.90	1112	0.0	0.0	1.529	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1565	1565	391	0	1560	1	3210	0.487	1563	546	1.0	1.5	3.467	A
B - A180 E	557	557	139	0	0	1361	685	0.813	546	202	1.2	3.9	24.958	C
C - A180 W	1561	1	0.28	1560	0	546	2249	0.000	1	1361	0.0	0.0	1.601	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1565	1565	391	0	1560	1	3210	0.487	1565	556	1.5	1.5	3.473	A
B - A180 E	557	557	139	0	0	1363	684	0.814	556	203	3.9	4.2	28.302	D
C - A180 W	1561	1	0.28	1560	0	556	2238	0.000	1	1363	0.0	0.0	1.608	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1277	1277	319	0	1274	0.90	3210	0.398	1279	467	1.5	1.1	2.964	A
B - A180 E	455	455	114	0	0	1115	839	0.542	467	166	4.2	1.2	10.263	B
C - A180 W	1275	0.90	0.22	1274	0	467	2339	0.000	0.90	1115	0.0	0.0	1.539	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1070	1070	267	0	1067	0.75	3211	0.333	1071	383	1.1	0.8	2.674	A
B - A180 E	381	381	95	0	0	933	951	0.401	383	139	1.2	0.7	6.555	A
C - A180 W	1068	0.75	0.19	1067	0	383	2433	0.000	0.75	933	0.0	0.0	1.479	A

2025 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	2.71	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.71	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	2	✓	38.00
B - A180 E	1362	✓	142.00
C - A180 W	196	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1808	100.000
B - A180 E		ONE HOUR	✓	178	100.000
C - A180 W		ONE HOUR	✓	1165	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	415	1393
B - A180 E	176	2	0
C - A180 W	1165	0	0

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	3	35
B - A180 E	8	0	0
C - A180 W	67	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.62	3.72	2.0	A	1659	2489
B - A180 E	0.34	10.15	0.5	B	163	245
C - A180 W	0.00	0.00	0.0	A	1069	0

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1361	1361	340	0	877	1	3209	0.424	1357	132	0.0	0.9	2.444	A
B - A180 E	134	134	34	0	0	1046	881	0.152	133	313	0.0	0.2	5.188	A
C - A180 W	877	0	0	877	0	133	2788	0.000	0	1046	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1625	1625	406	0	1047	2	3209	0.506	1624	158	0.9	1.3	2.859	A
B - A180 E	160	160	40	0	0	1251	754	0.212	160	375	0.2	0.3	6.533	A
C - A180 W	1047	0	0	1047	0	160	2756	0.000	0	1251	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1991	1991	498	0	1283	2	3209	0.620	1988	193	1.3	2.0	3.706	A
B - A180 E	196	196	49	0	0	1531	580	0.338	195	458	0.3	0.5	10.061	B
C - A180 W	1283	0	0	1283	0	195	2713	0.000	0	1531	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1991	1991	498	0	1283	2	3209	0.620	1991	194	2.0	2.0	3.723	A
B - A180 E	196	196	49	0	0	1534	579	0.339	196	459	0.5	0.5	10.148	B
C - A180 W	1283	0	0	1283	0	196	2712	0.000	0	1534	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1625	1625	406	0	1047	2	3209	0.506	1628	159	2.0	1.3	2.876	A
B - A180 E	160	160	40	0	0	1255	752	0.213	161	376	0.5	0.3	6.586	A
C - A180 W	1047	0	0	1047	0	161	2754	0.000	0	1255	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1361	1361	340	0	877	2	3209	0.424	1363	133	1.3	0.9	2.457	A
B - A180 E	134	134	34	0	0	1050	879	0.153	134	314	0.3	0.2	5.221	A
C - A180 W	877	0	0	877	0	134	2786	0.000	0	1050	0.0	0.0	0.000	A

2025 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	6.71	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.71	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	1	✓	38.00
B - A180 E	1375	✓	142.00
C - A180 W	557	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1433	100.000
B - A180 E		ONE HOUR	✓	506	100.000
C - A180 W		ONE HOUR	✓	1427	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	184	1249
B - A180 E	506	0	0
C - A180 W	1426	0	1

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	13	70
B - A180 E	3	0	0
C - A180 W	29	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.49	3.52	1.5	A	1315	1972
B - A180 E	0.82	30.15	4.4	D	464	696
C - A180 W	0.00	1.61	0.0	A	1309	1

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1079	1079	270	0	1074	0.75	3211	0.336	1076	378	0.0	0.8	2.689	A
B - A180 E	381	381	95	0	0	938	947	0.402	378	138	0.0	0.7	6.492	A
C - A180 W	1074	0.75	0.19	1074	0	378	2438	0.000	0.75	938	0.0	0.0	1.476	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1288	1288	322	0	1282	0.90	3210	0.401	1287	453	0.8	1.1	2.987	A
B - A180 E	455	455	114	0	0	1123	833	0.546	453	165	0.7	1.2	9.710	A
C - A180 W	1283	0.90	0.22	1282	0	453	2354	0.000	0.90	1123	0.0	0.0	1.529	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1578	1578	394	0	1570	1	3210	0.491	1576	546	1.1	1.5	3.514	A
B - A180 E	557	557	139	0	0	1375	677	0.823	546	202	1.2	4.1	26.244	D
C - A180 W	1571	1	0.28	1570	0	546	2249	0.000	1	1375	0.0	0.0	1.600	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1578	1578	394	0	1570	1	3210	0.491	1578	556	1.5	1.5	3.520	A
B - A180 E	557	557	139	0	0	1376	676	0.824	556	203	4.1	4.4	30.153	D
C - A180 W	1571	1	0.28	1570	0	556	2238	0.000	1	1376	0.0	0.0	1.608	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1288	1288	322	0	1282	0.90	3210	0.401	1290	467	1.5	1.1	2.995	A
B - A180 E	455	455	114	0	0	1125	831	0.547	467	166	4.4	1.3	10.535	B
C - A180 W	1283	0.90	0.22	1282	0	467	2338	0.000	0.90	1125	0.0	0.0	1.539	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1079	1079	270	0	1074	0.75	3211	0.336	1080	383	1.1	0.8	2.698	A
B - A180 E	381	381	95	0	0	942	944	0.403	383	139	1.3	0.7	6.634	A
C - A180 W	1074	0.75	0.19	1074	0	383	2433	0.000	0.75	942	0.0	0.0	1.479	A

2025 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	2.76	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.76	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	2	✓	38.00
B - A180 E	1558	✓	142.00
C - A180 W	196	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1831	100.000
B - A180 E		ONE HOUR	✓	178	100.000
C - A180 W		ONE HOUR	✓	1203	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	415	1416
B - A180 E	176	2	0
C - A180 W	1203	0	0

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	3	35
B - A180 E	8	0	0
C - A180 W	68	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.63	3.81	2.1	A	1680	2520
B - A180 E	0.35	10.60	0.6	B	163	245
C - A180 W	0.00	0.00	0.0	A	1104	0

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1378	1378	345	0	906	1	3209	0.430	1375	132	0.0	0.9	2.469	A
B - A180 E	134	134	34	0	0	1063	856	0.157	133	313	0.0	0.2	5.372	A
C - A180 W	906	0	0	906	0	133	2788	0.000	0	1063	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1646	1646	412	0	1081	2	3209	0.513	1645	158	0.9	1.3	2.899	A
B - A180 E	160	160	40	0	0	1272	732	0.219	160	375	0.2	0.3	6.780	A
C - A180 W	1081	0	0	1081	0	160	2756	0.000	0	1272	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	2016	2016	504	0	1325	2	3209	0.628	2013	193	1.3	2.1	3.787	A
B - A180 E	196	196	49	0	0	1557	564	0.348	195	458	0.3	0.6	10.500	B
C - A180 W	1325	0	0	1325	0	195	2713	0.000	0	1557	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	2016	2016	504	0	1325	2	3209	0.628	2016	194	2.1	2.1	3.805	A
B - A180 E	196	196	49	0	0	1559	562	0.348	196	459	0.6	0.6	10.599	B
C - A180 W	1325	0	0	1325	0	196	2712	0.000	0	1559	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1646	1646	412	0	1081	2	3209	0.513	1649	159	2.1	1.3	2.918	A
B - A180 E	160	160	40	0	0	1275	730	0.219	161	376	0.6	0.3	6.838	A
C - A180 W	1081	0	0	1081	0	161	2754	0.000	0	1275	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1378	1378	345	0	906	2	3209	0.430	1380	133	1.3	1.0	2.483	A
B - A180 E	134	134	34	0	0	1067	853	0.157	134	314	0.3	0.2	5.409	A
C - A180 W	906	0	0	906	0	134	2786	0.000	0	1067	0.0	0.0	0.000	A

2032 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	4.90	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.90	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	1	✓	38.00
B - A180 E	1244	✓	142.00
C - A180 W	548	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2032 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1309	100.000
B - A180 E		ONE HOUR	✓	498	100.000
C - A180 W		ONE HOUR	✓	1209	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	179	1130
B - A180 E	498	0	0
C - A180 W	1208	0	1

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	14	73
B - A180 E	3	0	0
C - A180 W	29	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.45	3.29	1.3	A	1201	1802
B - A180 E	0.72	17.15	2.5	C	457	685
C - A180 W	0.00	1.60	0.0	A	1109	1

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	985	985	246	0	909	0.75	3211	0.307	983	373	0.0	0.7	2.607	A
B - A180 E	375	375	94	0	0	849	1016	0.369	373	134	0.0	0.6	5.744	A
C - A180 W	910	0.75	0.19	909	0	373	2446	0.000	0.75	849	0.0	0.0	1.471	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1177	1177	294	0	1086	0.90	3210	0.367	1176	446	0.7	0.9	2.857	A
B - A180 E	448	448	112	0	0	1016	909	0.492	446	161	0.6	1.0	7.977	A
C - A180 W	1087	0.90	0.22	1086	0	446	2363	0.000	0.90	1016	0.0	0.0	1.523	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1441	1441	360	0	1330	1	3210	0.449	1440	542	0.9	1.3	3.282	A
B - A180 E	548	548	137	0	0	1244	764	0.718	542	197	1.0	2.5	16.305	C
C - A180 W	1331	1	0.28	1330	0	542	2254	0.000	1	1244	0.0	0.0	1.597	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1441	1441	360	0	1330	1	3210	0.449	1441	548	1.3	1.3	3.287	A
B - A180 E	548	548	137	0	0	1245	763	0.718	548	197	2.5	2.5	17.154	C
C - A180 W	1331	1	0.28	1330	0	548	2248	0.000	1	1245	0.0	0.0	1.601	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1177	1177	294	0	1086	0.90	3210	0.367	1178	454	1.3	0.9	2.863	A
B - A180 E	448	448	112	0	0	1018	908	0.493	454	161	2.5	1.0	8.268	A
C - A180 W	1087	0.90	0.22	1086	0	454	2354	0.000	0.90	1018	0.0	0.0	1.529	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	985	985	246	0	909	0.75	3211	0.307	986	377	0.9	0.7	2.615	A
B - A180 E	375	375	94	0	0	852	1014	0.370	377	135	1.0	0.6	5.833	A
C - A180 W	910	0.75	0.19	909	0	377	2442	0.000	0.75	852	0.0	0.0	1.476	A

2032 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	2.10	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.10	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	2	✓	38.00
B - A180 E	1242	✓	142.00
C - A180 W	188	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2032 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1518	100.000
B - A180 E		ONE HOUR	✓	171	100.000
C - A180 W		ONE HOUR	✓	1001	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	389	1129
B - A180 E	169	2	0
C - A180 W	1001	0	0

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	3	37
B - A180 E	9	0	0
C - A180 W	70	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.52	2.96	1.4	A	1393	2089
B - A180 E	0.25	6.80	0.4	A	157	235
C - A180 W	0.00	0.00	0.0	A	919	0

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1143	1143	286	0	754	1	3209	0.356	1140	127	0.0	0.7	2.194	A
B - A180 E	129	129	32	0	0	848	1017	0.127	128	294	0.0	0.2	4.408	A
C - A180 W	754	0	0	754	0	128	2796	0.000	0	848	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1365	1365	341	0	900	2	3209	0.425	1364	152	0.7	0.9	2.463	A
B - A180 E	154	154	38	0	0	1014	911	0.169	153	351	0.2	0.2	5.175	A
C - A180 W	900	0	0	900	0	153	2765	0.000	0	1014	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1671	1671	418	0	1102	2	3209	0.521	1670	186	0.9	1.4	2.952	A
B - A180 E	188	188	47	0	0	1242	766	0.246	188	430	0.2	0.4	6.778	A
C - A180 W	1102	0	0	1102	0	188	2723	0.000	0	1242	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1671	1671	418	0	1102	2	3209	0.521	1671	186	1.4	1.4	2.957	A
B - A180 E	188	188	47	0	0	1243	765	0.246	188	430	0.4	0.4	6.798	A
C - A180 W	1102	0	0	1102	0	188	2723	0.000	0	1243	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1365	1365	341	0	900	2	3209	0.425	1366	152	1.4	0.9	2.471	A
B - A180 E	154	154	38	0	0	1016	909	0.169	154	352	0.4	0.2	5.193	A
C - A180 W	900	0	0	900	0	154	2764	0.000	0	1016	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1143	1143	286	0	754	2	3209	0.356	1144	127	0.9	0.7	2.202	A
B - A180 E	129	129	32	0	0	851	1015	0.127	129	295	0.2	0.2	4.426	A
C - A180 W	754	0	0	754	0	129	2795	0.000	0	851	0.0	0.0	0.000	A

2032 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	9.36	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.36	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	1	✓	38.00
B - A180 E	1417	✓	142.00
C - A180 W	581	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1478	100.000
B - A180 E		ONE HOUR	✓	528	100.000
C - A180 W		ONE HOUR	✓	1472	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	192	1286
B - A180 E	528	0	0
C - A180 W	1471	0	1

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	13	69
B - A180 E	3	0	0
C - A180 W	29	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.51	3.61	1.6	A	1356	2034
B - A180 E	0.89	47.04	7.1	E	485	727
C - A180 W	0.00	1.63	0.0	A	1351	1

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1113	1113	278	0	1107	0.75	3211	0.347	1109	394	0.0	0.8	2.715	A
B - A180 E	398	398	99	0	0	966	926	0.429	394	144	0.0	0.8	6.942	A
C - A180 W	1108	0.75	0.19	1107	0	394	2417	0.000	0.75	966	0.0	0.0	1.489	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1329	1329	332	0	1322	0.90	3210	0.414	1328	472	0.8	1.1	3.034	A
B - A180 E	475	475	119	0	0	1156	809	0.586	472	172	0.8	1.4	10.906	B
C - A180 W	1323	0.90	0.22	1322	0	472	2329	0.000	0.90	1156	0.0	0.0	1.545	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1627	1627	407	0	1620	1	3210	0.507	1625	562	1.1	1.6	3.601	A
B - A180 E	581	581	145	0	0	1415	651	0.893	562	211	1.4	6.2	36.262	E
C - A180 W	1621	1	0.28	1620	0	562	2228	0.000	1	1415	0.0	0.0	1.615	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1627	1627	407	0	1620	1	3210	0.507	1627	578	1.6	1.6	3.610	A
B - A180 E	581	581	145	0	0	1417	650	0.895	578	211	6.2	7.1	47.038	E
C - A180 W	1621	1	0.28	1620	0	578	2211	0.001	1	1417	0.0	0.0	1.628	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1329	1329	332	0	1322	0.90	3210	0.414	1331	497	1.6	1.1	3.043	A
B - A180 E	475	475	119	0	0	1159	808	0.588	497	173	7.1	1.5	12.736	B
C - A180 W	1323	0.90	0.22	1322	0	497	2301	0.000	0.90	1159	0.0	0.0	1.566	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1113	1113	278	0	1107	0.75	3211	0.347	1114	400	1.1	0.8	2.729	A
B - A180 E	398	398	99	0	0	970	923	0.431	400	145	1.5	0.8	7.131	A
C - A180 W	1108	0.75	0.19	1107	0	400	2410	0.000	0.75	970	0.0	0.0	1.493	A

2032 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	2.91	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.91	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	2	✓	38.00
B - A180 E	1586	✓	142.00
C - A180 W	204	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1874	100.000
B - A180 E		ONE HOUR	✓	185	100.000
C - A180 W		ONE HOUR	✓	1208	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	432	1442
B - A180 E	183	2	0
C - A180 W	1208	0	0

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	3	35
B - A180 E	8	0	0
C - A180 W	67	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.64	3.96	2.3	A	1720	2579
B - A180 E	0.37	11.36	0.6	B	170	255
C - A180 W	0.00	0.00	0.0	A	1108	0

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1411	1411	353	0	909	1	3209	0.440	1407	137	0.0	1.0	2.511	A
B - A180 E	139	139	35	0	0	1083	842	0.165	138	326	0.0	0.2	5.514	A
C - A180 W	909	0	0	909	0	138	2780	0.000	0	1083	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1685	1685	421	0	1086	2	3209	0.525	1683	164	1.0	1.4	2.969	A
B - A180 E	166	166	42	0	0	1295	717	0.232	166	390	0.2	0.3	7.039	A
C - A180 W	1086	0	0	1086	0	166	2747	0.000	0	1295	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	2063	2063	516	0	1330	2	3209	0.643	2060	200	1.4	2.2	3.936	A
B - A180 E	204	204	51	0	0	1585	547	0.372	202	477	0.3	0.6	11.234	B
C - A180 W	1330	0	0	1330	0	202	2703	0.000	0	1585	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	2063	2063	516	0	1330	2	3209	0.643	2063	201	2.2	2.3	3.959	A
B - A180 E	204	204	51	0	0	1588	545	0.373	204	478	0.6	0.6	11.362	B
C - A180 W	1330	0	0	1330	0	204	2701	0.000	0	1588	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1685	1685	421	0	1086	2	3209	0.525	1688	166	2.3	1.4	2.987	A
B - A180 E	166	166	42	0	0	1299	715	0.233	168	391	0.6	0.3	7.110	A
C - A180 W	1086	0	0	1086	0	168	2745	0.000	0	1299	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1411	1411	353	0	909	2	3209	0.440	1412	138	1.4	1.0	2.527	A
B - A180 E	139	139	35	0	0	1087	839	0.166	140	327	0.3	0.2	5.554	A
C - A180 W	909	0	0	909	0	140	2778	0.000	0	1087	0.0	0.0	0.000	A

2032 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	10.06	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.06	B

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	1	✓	38.00
B - A180 E	1430	✓	142.00
C - A180 W	581	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1491	100.000
B - A180 E		ONE HOUR	✓	528	100.000
C - A180 W		ONE HOUR	✓	1480	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	192	1299
B - A180 E	528	0	0
C - A180 W	1479	0	1

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	13	70
B - A180 E	3	0	0
C - A180 W	29	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.51	3.66	1.7	A	1368	2052
B - A180 E	0.91	51.75	7.8	F	485	727
C - A180 W	0.00	1.63	0.0	A	1358	1

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1123	1123	281	0	1113	0.75	3211	0.350	1119	394	0.0	0.9	2.743	A
B - A180 E	398	398	99	0	0	976	919	0.433	394	144	0.0	0.8	7.034	A
C - A180 W	1114	0.75	0.19	1113	0	394	2417	0.000	0.75	976	0.0	0.0	1.489	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1340	1340	335	0	1330	0.90	3210	0.418	1339	472	0.9	1.1	3.070	A
B - A180 E	475	475	119	0	0	1168	801	0.592	472	172	0.8	1.5	11.161	B
C - A180 W	1330	0.90	0.22	1330	0	472	2330	0.000	0.90	1168	0.0	0.0	1.545	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1642	1642	410	0	1628	1	3210	0.511	1640	561	1.1	1.7	3.654	A
B - A180 E	581	581	145	0	0	1430	642	0.906	561	211	1.5	6.6	38.719	E
C - A180 W	1630	1	0.28	1628	0	561	2230	0.000	1	1430	0.0	0.0	1.614	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1642	1642	410	0	1628	1	3210	0.511	1642	577	1.7	1.7	3.662	A
B - A180 E	581	581	145	0	0	1431	641	0.907	577	211	6.6	7.8	51.745	F
C - A180 W	1630	1	0.28	1628	0	577	2212	0.001	1	1431	0.0	0.0	1.627	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1340	1340	335	0	1330	0.90	3210	0.418	1342	500	1.7	1.2	3.081	A
B - A180 E	475	475	119	0	0	1170	800	0.593	500	173	7.8	1.6	13.320	B
C - A180 W	1330	0.90	0.22	1330	0	500	2298	0.000	0.90	1170	0.0	0.0	1.568	A

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1123	1123	281	0	1113	0.75	3211	0.350	1124	401	1.2	0.9	2.756	A
B - A180 E	398	398	99	0	0	980	916	0.434	401	145	1.6	0.8	7.231	A
C - A180 W	1114	0.75	0.19	1113	0	401	2410	0.000	0.75	980	0.0	0.0	1.493	A

2032 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	2.97	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.97	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	2	✓	38.00
B - A180 E	1612	✓	142.00
C - A180 W	204	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1897	100.000
B - A180 E		ONE HOUR	✓	185	100.000
C - A180 W		ONE HOUR	✓	1246	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	432	1465
B - A180 E	183	2	0
C - A180 W	1246	0	0

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	3	35
B - A180 E	8	0	0
C - A180 W	68	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.65	4.05	2.3	A	1741	2611
B - A180 E	0.38	11.87	0.7	B	170	255
C - A180 W	0.00	0.00	0.0	A	1143	0

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1428	1428	357	0	938	1	3209	0.445	1424	137	0.0	1.0	2.537	A
B - A180 E	139	139	35	0	0	1100	830	0.168	138	326	0.0	0.2	5.609	A
C - A180 W	938	0	0	938	0	138	2780	0.000	0	1100	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1705	1705	426	0	1120	2	3209	0.531	1704	164	1.0	1.4	3.012	A
B - A180 E	166	166	42	0	0	1316	704	0.236	166	390	0.2	0.3	7.210	A
C - A180 W	1120	0	0	1120	0	166	2747	0.000	0	1316	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	2089	2089	522	0	1372	2	3209	0.651	2085	200	1.4	2.3	4.026	A
B - A180 E	204	204	51	0	0	1610	532	0.383	202	477	0.3	0.7	11.726	B
C - A180 W	1372	0	0	1372	0	202	2703	0.000	0	1610	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	2089	2089	522	0	1372	2	3209	0.651	2089	201	2.3	2.3	4.052	A
B - A180 E	204	204	51	0	0	1613	531	0.384	204	478	0.7	0.7	11.870	B
C - A180 W	1372	0	0	1372	0	204	2701	0.000	0	1613	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1705	1705	426	0	1120	2	3209	0.531	1709	166	2.3	1.4	3.034	A
B - A180 E	166	166	42	0	0	1320	702	0.237	168	391	0.7	0.3	7.291	A
C - A180 W	1120	0	0	1120	0	168	2745	0.000	0	1320	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1428	1428	357	0	938	2	3209	0.445	1430	138	1.4	1.0	2.552	A
B - A180 E	139	139	35	0	0	1104	827	0.168	140	327	0.3	0.2	5.654	A
C - A180 W	938	0	0	938	0	140	2778	0.000	0	1104	0.0	0.0	0.000	A



Appendix TN2 S

A160/ A180 Average Flows Junction Assessment Results

<h1>Junctions 10</h1>
<h2>ARCADY 10 - Roundabout Module</h2>
Version: 10.0.4.1693 © Copyright TRL Software Limited, 2021
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Filename: A160-A180.j10
Path: P:\23000's\23325\Junction Assessment\4 Average Flow Assessment
Report generation date: 19/10/2023 12:53:51

- »2021 Base, AM
- »2021 Base, PM
- »2025 Base, AM
- »2025 Base, PM
- »2025 Base + Committed, AM
- »2025 Base + Committed, PM
- »2025 Base + Committed + Development, AM
- »2025 Base + Committed + Development, PM
- »2032 Base, AM
- »2032 Base, PM
- »2032 Base + Committed, AM
- »2032 Base + Committed, PM
- »2032 Base + Committed + Development, AM
- »2032 Base + Committed + Development, PM

Summary of junction performance

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
2021 Base						
A - A160	1.2	3.11	0.42	1.2	2.75	0.48
B - A180 E	1.6	11.72	0.62	0.3	6.02	0.21
C - A180 W	0.0	1.57	0.00	0.0	0.00	0.00
2025 Base						
A - A160	1.2	3.17	0.43	1.3	2.83	0.50
B - A180 E	1.9	13.34	0.65	0.3	6.30	0.22
C - A180 W	0.0	1.58	0.00	0.0	0.00	0.00
2025 Base + Committed						
A - A160	1.5	3.47	0.49	2.0	3.72	0.62
B - A180 E	4.2	28.30	0.81	0.5	10.15	0.34
C - A180 W	0.0	1.61	0.00	0.0	0.00	0.00
2025 Base + Committed + Development						
A - A160	1.5	3.52	0.49	2.1	3.79	0.63
B - A180 E	4.5	30.47	0.83	0.6	10.54	0.35
C - A180 W	0.0	1.61	0.00	0.0	0.00	0.00
2032 Base						
A - A160	1.3	3.29	0.45	1.4	2.96	0.52
B - A180 E	2.5	17.15	0.72	0.4	6.80	0.25
C - A180 W	0.0	1.60	0.00	0.0	0.00	0.00
2032 Base + Committed						
A - A160	1.6	3.61	0.51	2.3	3.96	0.64
B - A180 E	7.1	47.04	0.89	0.6	11.36	0.37
C - A180 W	0.0	1.63	0.00	0.0	0.00	0.00
2032 Base + Committed + Development						
A - A160	1.7	3.67	0.51	2.3	4.04	0.65
B - A180 E	7.9	52.52	0.91	0.7	11.78	0.38
C - A180 W	0.0	1.63	0.00	0.0	0.00	0.00

Values shown are the highest values encountered over all time segments. Delay is the maximum value of Av. delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	18/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\Arcady
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

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	2021 Base	AM	ONE HOUR	06:45	08:15	15	✓
D2	2021 Base	PM	ONE HOUR	15:45	17:15	15	✓
D3	2025 Base	AM	ONE HOUR	06:45	08:15	15	✓
D4	2025 Base	PM	ONE HOUR	15:45	17:15	15	✓
D5	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D6	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D7	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D8	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓
D9	2032 Base	AM	ONE HOUR	06:45	08:15	15	✓
D10	2032 Base	PM	ONE HOUR	15:45	17:15	15	✓
D11	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	15	✓
D12	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	15	✓
D13	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	15	✓
D14	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2021 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	3.91	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.91	A

Arms

Arms

Arm	Name	Description	No give-way line
A	A160		
B	A180 E		
C	A180 W		

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
A - A160	7.12	8.39	15.0	37.9	103.5	41.0		
B - A180 E	3.80	4.80	5.0	25.9	102.0	44.0		
C - A180 W	4.81	8.20	30.0	75.4	102.0	4.0		

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	1	✓	38.00
B - A180 E	1155	✓	142.00
C - A180 W	509	✓	170.00

Bypass

Arm	Arm has bypass	Bypass Util (%)
A - A160		
B - A180 E		
C - A180 W	✓	100

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A160	1.169	3211
B - A180 E	0.650	1578
C - A180 W	1.140	2877

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	2021 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1215	100.000
B - A180 E		ONE HOUR	✓	463	100.000
C - A180 W		ONE HOUR	✓	1122	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	166	1049
B - A180 E	463	0	0
C - A180 W	1121	0	1

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	14	73
B - A180 E	3	0	0
C - A180 W	29	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.42	3.11	1.2	A	1115	1672
B - A180 E	0.62	11.72	1.6	B	425	637
C - A180 W	0.00	1.57	0.0	A	1030	1

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	915	915	229	0	844	0.75	3211	0.285	912	347	0.0	0.6	2.529	A
B - A180 E	349	349	87	0	0	788	1065	0.327	347	125	0.0	0.5	5.146	A
C - A180 W	845	0.75	0.19	844	0	347	2481	0.000	0.75	788	0.0	0.0	1.450	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1092	1092	273	0	1008	0.90	3210	0.340	1092	415	0.6	0.8	2.745	A
B - A180 E	416	416	104	0	0	943	964	0.432	415	149	0.5	0.8	6.741	A
C - A180 W	1009	0.90	0.22	1008	0	415	2403	0.000	0.90	943	0.0	0.0	1.497	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1338	1338	334	0	1234	1	3210	0.417	1336	506	0.8	1.1	3.103	A
B - A180 E	510	510	127	0	0	1155	826	0.617	506	183	0.8	1.6	11.471	B
C - A180 W	1235	1	0.28	1234	0	506	2299	0.000	1	1155	0.0	0.0	1.565	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1338	1338	334	0	1234	1	3210	0.417	1338	510	1.1	1.2	3.105	A
B - A180 E	510	510	127	0	0	1156	826	0.617	510	183	1.6	1.6	11.724	B
C - A180 W	1235	1	0.28	1234	0	510	2296	0.000	1	1156	0.0	0.0	1.568	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1092	1092	273	0	1008	0.90	3210	0.340	1094	420	1.2	0.8	2.748	A
B - A180 E	416	416	104	0	0	945	963	0.432	420	149	1.6	0.8	6.867	A
C - A180 W	1009	0.90	0.22	1008	0	420	2398	0.000	0.90	945	0.0	0.0	1.500	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	915	915	229	0	844	0.75	3211	0.285	915	350	0.8	0.6	2.536	A
B - A180 E	349	349	87	0	0	791	1063	0.328	350	125	0.8	0.5	5.208	A
C - A180 W	845	0.75	0.19	844	0	350	2478	0.000	0.75	791	0.0	0.0	1.454	A

2021 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	1.93	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.93	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	2	✓	38.00
B - A180 E	1155	✓	142.00
C - A180 W	175	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2021 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1412	100.000
B - A180 E		ONE HOUR	✓	159	100.000
C - A180 W		ONE HOUR	✓	931	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	362	1050
B - A180 E	157	2	0
C - A180 W	931	0	0

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	3	37
B - A180 E	9	0	0
C - A180 W	70	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.48	2.75	1.2	A	1296	1944
B - A180 E	0.21	6.02	0.3	A	146	219
C - A180 W	0.00	0.00	0.0	A	854	0

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1063	1063	266	0	701	1	3209	0.331	1061	118	0.0	0.6	2.114	A
B - A180 E	120	120	30	0	0	789	1065	0.112	119	273	0.0	0.1	4.144	A
C - A180 W	701	0	0	701	0	119	2809	0.000	0	789	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1269	1269	317	0	837	2	3209	0.396	1269	141	0.6	0.8	2.341	A
B - A180 E	143	143	36	0	0	943	964	0.148	143	327	0.1	0.2	4.771	A
C - A180 W	837	0	0	837	0	143	2781	0.000	0	943	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1555	1555	389	0	1025	2	3209	0.485	1553	172	0.8	1.2	2.744	A
B - A180 E	175	175	44	0	0	1155	826	0.212	175	400	0.2	0.3	6.010	A
C - A180 W	1025	0	0	1025	0	175	2742	0.000	0	1155	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1555	1555	389	0	1025	2	3209	0.485	1555	173	1.2	1.2	2.748	A
B - A180 E	175	175	44	0	0	1156	826	0.212	175	401	0.3	0.3	6.023	A
C - A180 W	1025	0	0	1025	0	175	2741	0.000	0	1156	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1269	1269	317	0	837	2	3209	0.396	1271	142	1.2	0.8	2.349	A
B - A180 E	143	143	36	0	0	945	963	0.148	143	328	0.3	0.2	4.784	A
C - A180 W	837	0	0	837	0	143	2780	0.000	0	945	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1063	1063	266	0	701	2	3209	0.331	1064	118	0.8	0.6	2.121	A
B - A180 E	120	120	30	0	0	791	1063	0.113	120	274	0.2	0.1	4.156	A
C - A180 W	701	0	0	701	0	120	2808	0.000	0	791	0.0	0.0	0.000	A

2025 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	4.21	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.21	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	1	✓	38.00
B - A180 E	1189	✓	142.00
C - A180 W	524	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2025 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1251	100.000
B - A180 E		ONE HOUR	✓	476	100.000
C - A180 W		ONE HOUR	✓	1156	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	171	1080
B - A180 E	476	0	0
C - A180 W	1155	0	1

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	14	73
B - A180 E	3	0	0
C - A180 W	29	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.43	3.17	1.2	A	1148	1722
B - A180 E	0.65	13.34	1.9	B	437	655
C - A180 W	0.00	1.58	0.0	A	1061	1

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	942	942	235	0	870	0.75	3211	0.293	939	356	0.0	0.7	2.559	A
B - A180 E	358	358	90	0	0	812	1046	0.343	356	128	0.0	0.5	5.360	A
C - A180 W	870	0.75	0.19	870	0	356	2468	0.000	0.75	812	0.0	0.0	1.458	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1125	1125	281	0	1038	0.90	3210	0.350	1124	427	0.7	0.9	2.788	A
B - A180 E	428	428	107	0	0	971	943	0.454	427	154	0.5	0.8	7.165	A
C - A180 W	1039	0.90	0.22	1038	0	427	2388	0.000	0.90	971	0.0	0.0	1.507	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1377	1377	344	0	1272	1	3210	0.429	1376	520	0.9	1.2	3.170	A
B - A180 E	524	524	131	0	0	1189	802	0.653	520	188	0.8	1.9	12.953	B
C - A180 W	1273	1	0.28	1272	0	520	2282	0.000	1	1189	0.0	0.0	1.577	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1377	1377	344	0	1272	1	3210	0.429	1377	524	1.2	1.2	3.172	A
B - A180 E	524	524	131	0	0	1190	802	0.654	524	188	1.9	1.9	13.335	B
C - A180 W	1273	1	0.28	1272	0	524	2278	0.000	1	1190	0.0	0.0	1.580	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1125	1125	281	0	1038	0.90	3210	0.350	1126	432	1.2	0.9	2.793	A
B - A180 E	428	428	107	0	0	973	942	0.454	432	154	1.9	0.9	7.334	A
C - A180 W	1039	0.90	0.22	1038	0	432	2382	0.000	0.90	973	0.0	0.0	1.511	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	942	942	235	0	870	0.75	3211	0.293	943	360	0.9	0.7	2.567	A
B - A180 E	358	358	90	0	0	815	1044	0.343	360	129	0.9	0.5	5.430	A
C - A180 W	870	0.75	0.19	870	0	360	2464	0.000	0.75	815	0.0	0.0	1.460	A

2025 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	1.99	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.99	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	2	✓	38.00
B - A180 E	1189	✓	142.00
C - A180 W	180	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2025 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1453	100.000
B - A180 E		ONE HOUR	✓	163	100.000
C - A180 W		ONE HOUR	✓	958	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	372	1081
B - A180 E	161	2	0
C - A180 W	958	0	0

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	3	37
B - A180 E	9	0	0
C - A180 W	70	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.50	2.83	1.3	A	1333	2000
B - A180 E	0.22	6.30	0.3	A	150	224
C - A180 W	0.00	0.00	0.0	A	879	0

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1094	1094	273	0	721	1	3209	0.341	1091	121	0.0	0.7	2.144	A
B - A180 E	123	123	31	0	0	812	1046	0.117	122	281	0.0	0.1	4.241	A
C - A180 W	721	0	0	721	0	122	2805	0.000	0	812	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1306	1306	327	0	861	2	3209	0.407	1305	145	0.7	0.9	2.387	A
B - A180 E	147	147	37	0	0	971	943	0.155	146	336	0.1	0.2	4.919	A
C - A180 W	861	0	0	861	0	146	2775	0.000	0	971	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1600	1600	400	0	1055	2	3209	0.499	1598	177	0.9	1.2	2.821	A
B - A180 E	179	179	45	0	0	1189	802	0.224	179	411	0.2	0.3	6.285	A
C - A180 W	1055	0	0	1055	0	179	2736	0.000	0	1189	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1600	1600	400	0	1055	2	3209	0.499	1600	177	1.2	1.3	2.826	A
B - A180 E	179	179	45	0	0	1190	802	0.224	179	412	0.3	0.3	6.300	A
C - A180 W	1055	0	0	1055	0	179	2735	0.000	0	1190	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1306	1306	327	0	861	2	3209	0.407	1308	145	1.3	0.9	2.393	A
B - A180 E	147	147	37	0	0	973	942	0.156	147	337	0.3	0.2	4.934	A
C - A180 W	861	0	0	861	0	147	2774	0.000	0	973	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1094	1094	273	0	721	2	3209	0.341	1095	121	0.9	0.7	2.151	A
B - A180 E	123	123	31	0	0	814	1044	0.118	123	282	0.2	0.1	4.256	A
C - A180 W	721	0	0	721	0	123	2804	0.000	0	814	0.0	0.0	0.000	A

2025 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	6.44	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.44	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	1	✓	38.00
B - A180 E	1362	✓	142.00
C - A180 W	557	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2025 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1421	100.000
B - A180 E		ONE HOUR	✓	506	100.000
C - A180 W		ONE HOUR	✓	1418	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	184	1237
B - A180 E	506	0	0
C - A180 W	1417	0	1

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	13	69
B - A180 E	3	0	0
C - A180 W	29	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.49	3.47	1.5	A	1304	1956
B - A180 E	0.81	28.30	4.2	D	464	696
C - A180 W	0.00	1.61	0.0	A	1301	1

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1070	1070	267	0	1067	0.75	3211	0.333	1067	378	0.0	0.8	2.663	A
B - A180 E	381	381	95	0	0	929	953	0.400	378	138	0.0	0.7	6.418	A
C - A180 W	1068	0.75	0.19	1067	0	378	2438	0.000	0.75	929	0.0	0.0	1.476	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1277	1277	319	0	1274	0.90	3210	0.398	1276	453	0.8	1.0	2.954	A
B - A180 E	455	455	114	0	0	1112	840	0.541	453	165	0.7	1.2	9.524	A
C - A180 W	1275	0.90	0.22	1274	0	453	2354	0.000	0.90	1112	0.0	0.0	1.529	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1565	1565	391	0	1560	1	3210	0.487	1563	546	1.0	1.5	3.467	A
B - A180 E	557	557	139	0	0	1361	685	0.813	546	202	1.2	3.9	24.958	C
C - A180 W	1561	1	0.28	1560	0	546	2249	0.000	1	1361	0.0	0.0	1.601	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1565	1565	391	0	1560	1	3210	0.487	1565	556	1.5	1.5	3.473	A
B - A180 E	557	557	139	0	0	1363	684	0.814	556	203	3.9	4.2	28.302	D
C - A180 W	1561	1	0.28	1560	0	556	2238	0.000	1	1363	0.0	0.0	1.608	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1277	1277	319	0	1274	0.90	3210	0.398	1279	467	1.5	1.1	2.964	A
B - A180 E	455	455	114	0	0	1115	839	0.542	467	166	4.2	1.2	10.263	B
C - A180 W	1275	0.90	0.22	1274	0	467	2339	0.000	0.90	1115	0.0	0.0	1.539	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1070	1070	267	0	1067	0.75	3211	0.333	1071	383	1.1	0.8	2.674	A
B - A180 E	381	381	95	0	0	933	951	0.401	383	139	1.2	0.7	6.555	A
C - A180 W	1068	0.75	0.19	1067	0	383	2433	0.000	0.75	933	0.0	0.0	1.479	A

2025 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	2.71	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.71	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	2	✓	38.00
B - A180 E	1362	✓	142.00
C - A180 W	196	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2025 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1808	100.000
B - A180 E		ONE HOUR	✓	178	100.000
C - A180 W		ONE HOUR	✓	1165	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	415	1393
B - A180 E	176	2	0
C - A180 W	1165	0	0

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	3	35
B - A180 E	8	0	0
C - A180 W	67	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.62	3.72	2.0	A	1659	2489
B - A180 E	0.34	10.15	0.5	B	163	245
C - A180 W	0.00	0.00	0.0	A	1069	0

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1361	1361	340	0	877	1	3209	0.424	1357	132	0.0	0.9	2.444	A
B - A180 E	134	134	34	0	0	1046	881	0.152	133	313	0.0	0.2	5.188	A
C - A180 W	877	0	0	877	0	133	2788	0.000	0	1046	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1625	1625	406	0	1047	2	3209	0.506	1624	158	0.9	1.3	2.859	A
B - A180 E	160	160	40	0	0	1251	754	0.212	160	375	0.2	0.3	6.533	A
C - A180 W	1047	0	0	1047	0	160	2756	0.000	0	1251	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1991	1991	498	0	1283	2	3209	0.620	1988	193	1.3	2.0	3.706	A
B - A180 E	196	196	49	0	0	1531	580	0.338	195	458	0.3	0.5	10.061	B
C - A180 W	1283	0	0	1283	0	195	2713	0.000	0	1531	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1991	1991	498	0	1283	2	3209	0.620	1991	194	2.0	2.0	3.723	A
B - A180 E	196	196	49	0	0	1534	579	0.339	196	459	0.5	0.5	10.148	B
C - A180 W	1283	0	0	1283	0	196	2712	0.000	0	1534	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1625	1625	406	0	1047	2	3209	0.506	1628	159	2.0	1.3	2.876	A
B - A180 E	160	160	40	0	0	1255	752	0.213	161	376	0.5	0.3	6.586	A
C - A180 W	1047	0	0	1047	0	161	2754	0.000	0	1255	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1361	1361	340	0	877	2	3209	0.424	1363	133	1.3	0.9	2.457	A
B - A180 E	134	134	34	0	0	1050	879	0.153	134	314	0.3	0.2	5.221	A
C - A180 W	877	0	0	877	0	134	2786	0.000	0	1050	0.0	0.0	0.000	A

2025 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	6.74	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.74	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	1	✓	38.00
B - A180 E	1376	✓	142.00
C - A180 W	557	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1435	100.000
B - A180 E		ONE HOUR	✓	506	100.000
C - A180 W		ONE HOUR	✓	1443	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	184	1251
B - A180 E	506	0	0
C - A180 W	1442	0	1

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	13	70
B - A180 E	3	0	0
C - A180 W	30	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.49	3.52	1.5	A	1317	1975
B - A180 E	0.83	30.47	4.5	D	464	696
C - A180 W	0.00	1.61	0.0	A	1324	1

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1080	1080	270	0	1086	0.75	3211	0.337	1077	378	0.0	0.8	2.691	A
B - A180 E	381	381	95	0	0	940	946	0.403	378	138	0.0	0.7	6.504	A
C - A180 W	1086	0.75	0.19	1086	0	378	2438	0.000	0.75	940	0.0	0.0	1.476	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1290	1290	323	0	1296	0.90	3210	0.402	1289	453	0.8	1.1	2.990	A
B - A180 E	455	455	114	0	0	1125	831	0.547	453	165	0.7	1.2	9.739	A
C - A180 W	1297	0.90	0.22	1296	0	453	2354	0.000	0.90	1125	0.0	0.0	1.529	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1580	1580	395	0	1588	1	3210	0.492	1578	545	1.1	1.5	3.519	A
B - A180 E	557	557	139	0	0	1377	675	0.825	545	202	1.2	4.1	26.462	D
C - A180 W	1589	1	0.28	1588	0	545	2250	0.000	1	1377	0.0	0.0	1.600	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1580	1580	395	0	1588	1	3210	0.492	1580	556	1.5	1.5	3.525	A
B - A180 E	557	557	139	0	0	1378	674	0.826	556	203	4.1	4.5	30.474	D
C - A180 W	1589	1	0.28	1588	0	556	2238	0.000	1	1378	0.0	0.0	1.608	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1290	1290	323	0	1296	0.90	3210	0.402	1292	468	1.5	1.1	3.000	A
B - A180 E	455	455	114	0	0	1127	830	0.548	468	166	4.5	1.3	10.582	B
C - A180 W	1297	0.90	0.22	1296	0	468	2337	0.000	0.90	1127	0.0	0.0	1.542	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1080	1080	270	0	1086	0.75	3211	0.337	1081	383	1.1	0.8	2.702	A
B - A180 E	381	381	95	0	0	943	943	0.404	383	139	1.3	0.7	6.649	A
C - A180 W	1086	0.75	0.19	1086	0	383	2433	0.000	0.75	943	0.0	0.0	1.481	A

2025 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	2.75	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.75	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	2	✓	38.00
B - A180 E	1554	✓	142.00
C - A180 W	196	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2025 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1828	100.000
B - A180 E		ONE HOUR	✓	178	100.000
C - A180 W		ONE HOUR	✓	1198	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	415	1413
B - A180 E	176	2	0
C - A180 W	1198	0	0

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	3	35
B - A180 E	8	0	0
C - A180 W	67	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.63	3.79	2.1	A	1677	2516
B - A180 E	0.35	10.54	0.6	B	163	245
C - A180 W	0.00	0.00	0.0	A	1099	0

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1376	1376	344	0	902	1	3209	0.429	1372	132	0.0	0.9	2.466	A
B - A180 E	134	134	34	0	0	1061	857	0.156	133	313	0.0	0.2	5.360	A
C - A180 W	902	0	0	902	0	133	2788	0.000	0	1061	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1643	1643	411	0	1077	2	3209	0.512	1642	158	0.9	1.3	2.894	A
B - A180 E	160	160	40	0	0	1269	734	0.218	160	375	0.2	0.3	6.759	A
C - A180 W	1077	0	0	1077	0	160	2756	0.000	0	1269	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	2013	2013	503	0	1319	2	3209	0.627	2010	193	1.3	2.1	3.777	A
B - A180 E	196	196	49	0	0	1553	566	0.346	195	458	0.3	0.6	10.445	B
C - A180 W	1319	0	0	1319	0	195	2713	0.000	0	1553	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	2013	2013	503	0	1319	2	3209	0.627	2013	194	2.1	2.1	3.794	A
B - A180 E	196	196	49	0	0	1556	564	0.347	196	459	0.6	0.6	10.542	B
C - A180 W	1319	0	0	1319	0	196	2712	0.000	0	1556	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1643	1643	411	0	1077	2	3209	0.512	1646	159	2.1	1.3	2.912	A
B - A180 E	160	160	40	0	0	1273	732	0.219	161	376	0.6	0.3	6.819	A
C - A180 W	1077	0	0	1077	0	161	2754	0.000	0	1273	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1376	1376	344	0	902	2	3209	0.429	1378	133	1.3	1.0	2.480	A
B - A180 E	134	134	34	0	0	1065	855	0.157	134	314	0.3	0.2	5.397	A
C - A180 W	902	0	0	902	0	134	2786	0.000	0	1065	0.0	0.0	0.000	A

2032 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	4.90	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.90	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	1	✓	38.00
B - A180 E	1244	✓	142.00
C - A180 W	548	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2032 Base	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1309	100.000
B - A180 E		ONE HOUR	✓	498	100.000
C - A180 W		ONE HOUR	✓	1209	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	179	1130
B - A180 E	498	0	0
C - A180 W	1208	0	1

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	14	73
B - A180 E	3	0	0
C - A180 W	29	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.45	3.29	1.3	A	1201	1802
B - A180 E	0.72	17.15	2.5	C	457	685
C - A180 W	0.00	1.60	0.0	A	1109	1

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	985	985	246	0	909	0.75	3211	0.307	983	373	0.0	0.7	2.607	A
B - A180 E	375	375	94	0	0	849	1016	0.369	373	134	0.0	0.6	5.744	A
C - A180 W	910	0.75	0.19	909	0	373	2446	0.000	0.75	849	0.0	0.0	1.471	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1177	1177	294	0	1086	0.90	3210	0.367	1176	446	0.7	0.9	2.857	A
B - A180 E	448	448	112	0	0	1016	909	0.492	446	161	0.6	1.0	7.977	A
C - A180 W	1087	0.90	0.22	1086	0	446	2363	0.000	0.90	1016	0.0	0.0	1.523	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1441	1441	360	0	1330	1	3210	0.449	1440	542	0.9	1.3	3.282	A
B - A180 E	548	548	137	0	0	1244	764	0.718	542	197	1.0	2.5	16.305	C
C - A180 W	1331	1	0.28	1330	0	542	2254	0.000	1	1244	0.0	0.0	1.597	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1441	1441	360	0	1330	1	3210	0.449	1441	548	1.3	1.3	3.287	A
B - A180 E	548	548	137	0	0	1245	763	0.718	548	197	2.5	2.5	17.154	C
C - A180 W	1331	1	0.28	1330	0	548	2248	0.000	1	1245	0.0	0.0	1.601	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1177	1177	294	0	1086	0.90	3210	0.367	1178	454	1.3	0.9	2.863	A
B - A180 E	448	448	112	0	0	1018	908	0.493	454	161	2.5	1.0	8.268	A
C - A180 W	1087	0.90	0.22	1086	0	454	2354	0.000	0.90	1018	0.0	0.0	1.529	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	985	985	246	0	909	0.75	3211	0.307	986	377	0.9	0.7	2.615	A
B - A180 E	375	375	94	0	0	852	1014	0.370	377	135	1.0	0.6	5.833	A
C - A180 W	910	0.75	0.19	909	0	377	2442	0.000	0.75	852	0.0	0.0	1.476	A

2032 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	2.10	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.10	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	2	✓	38.00
B - A180 E	1242	✓	142.00
C - A180 W	188	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2032 Base	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1518	100.000
B - A180 E		ONE HOUR	✓	171	100.000
C - A180 W		ONE HOUR	✓	1001	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	389	1129
B - A180 E	169	2	0
C - A180 W	1001	0	0

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	3	37
B - A180 E	9	0	0
C - A180 W	70	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.52	2.96	1.4	A	1393	2089
B - A180 E	0.25	6.80	0.4	A	157	235
C - A180 W	0.00	0.00	0.0	A	919	0

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1143	1143	286	0	754	1	3209	0.356	1140	127	0.0	0.7	2.194	A
B - A180 E	129	129	32	0	0	848	1017	0.127	128	294	0.0	0.2	4.408	A
C - A180 W	754	0	0	754	0	128	2796	0.000	0	848	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1365	1365	341	0	900	2	3209	0.425	1364	152	0.7	0.9	2.463	A
B - A180 E	154	154	38	0	0	1014	911	0.169	153	351	0.2	0.2	5.175	A
C - A180 W	900	0	0	900	0	153	2765	0.000	0	1014	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1671	1671	418	0	1102	2	3209	0.521	1670	186	0.9	1.4	2.952	A
B - A180 E	188	188	47	0	0	1242	766	0.246	188	430	0.2	0.4	6.778	A
C - A180 W	1102	0	0	1102	0	188	2723	0.000	0	1242	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1671	1671	418	0	1102	2	3209	0.521	1671	186	1.4	1.4	2.957	A
B - A180 E	188	188	47	0	0	1243	765	0.246	188	430	0.4	0.4	6.798	A
C - A180 W	1102	0	0	1102	0	188	2723	0.000	0	1243	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1365	1365	341	0	900	2	3209	0.425	1366	152	1.4	0.9	2.471	A
B - A180 E	154	154	38	0	0	1016	909	0.169	154	352	0.4	0.2	5.193	A
C - A180 W	900	0	0	900	0	154	2764	0.000	0	1016	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1143	1143	286	0	754	2	3209	0.356	1144	127	0.9	0.7	2.202	A
B - A180 E	129	129	32	0	0	851	1015	0.127	129	295	0.2	0.2	4.426	A
C - A180 W	754	0	0	754	0	129	2795	0.000	0	851	0.0	0.0	0.000	A

2032 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	9.36	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.36	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	1	✓	38.00
B - A180 E	1417	✓	142.00
C - A180 W	581	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2032 Base + Committed	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1478	100.000
B - A180 E		ONE HOUR	✓	528	100.000
C - A180 W		ONE HOUR	✓	1472	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	192	1286
B - A180 E	528	0	0
C - A180 W	1471	0	1

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	13	69
B - A180 E	3	0	0
C - A180 W	29	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.51	3.61	1.6	A	1356	2034
B - A180 E	0.89	47.04	7.1	E	485	727
C - A180 W	0.00	1.63	0.0	A	1351	1

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1113	1113	278	0	1107	0.75	3211	0.347	1109	394	0.0	0.8	2.715	A
B - A180 E	398	398	99	0	0	966	926	0.429	394	144	0.0	0.8	6.942	A
C - A180 W	1108	0.75	0.19	1107	0	394	2417	0.000	0.75	966	0.0	0.0	1.489	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1329	1329	332	0	1322	0.90	3210	0.414	1328	472	0.8	1.1	3.034	A
B - A180 E	475	475	119	0	0	1156	809	0.586	472	172	0.8	1.4	10.906	B
C - A180 W	1323	0.90	0.22	1322	0	472	2329	0.000	0.90	1156	0.0	0.0	1.545	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1627	1627	407	0	1620	1	3210	0.507	1625	562	1.1	1.6	3.601	A
B - A180 E	581	581	145	0	0	1415	651	0.893	562	211	1.4	6.2	36.262	E
C - A180 W	1621	1	0.28	1620	0	562	2228	0.000	1	1415	0.0	0.0	1.615	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1627	1627	407	0	1620	1	3210	0.507	1627	578	1.6	1.6	3.610	A
B - A180 E	581	581	145	0	0	1417	650	0.895	578	211	6.2	7.1	47.038	E
C - A180 W	1621	1	0.28	1620	0	578	2211	0.001	1	1417	0.0	0.0	1.628	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1329	1329	332	0	1322	0.90	3210	0.414	1331	497	1.6	1.1	3.043	A
B - A180 E	475	475	119	0	0	1159	808	0.588	497	173	7.1	1.5	12.736	B
C - A180 W	1323	0.90	0.22	1322	0	497	2301	0.000	0.90	1159	0.0	0.0	1.566	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1113	1113	278	0	1107	0.75	3211	0.347	1114	400	1.1	0.8	2.729	A
B - A180 E	398	398	99	0	0	970	923	0.431	400	145	1.5	0.8	7.131	A
C - A180 W	1108	0.75	0.19	1107	0	400	2410	0.000	0.75	970	0.0	0.0	1.493	A

2032 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	2.91	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.91	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	2	✓	38.00
B - A180 E	1586	✓	142.00
C - A180 W	204	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2032 Base + Committed	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1874	100.000
B - A180 E		ONE HOUR	✓	185	100.000
C - A180 W		ONE HOUR	✓	1208	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	432	1442
B - A180 E	183	2	0
C - A180 W	1208	0	0

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	3	35
B - A180 E	8	0	0
C - A180 W	67	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.64	3.96	2.3	A	1720	2579
B - A180 E	0.37	11.36	0.6	B	170	255
C - A180 W	0.00	0.00	0.0	A	1108	0

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1411	1411	353	0	909	1	3209	0.440	1407	137	0.0	1.0	2.511	A
B - A180 E	139	139	35	0	0	1083	842	0.165	138	326	0.0	0.2	5.514	A
C - A180 W	909	0	0	909	0	138	2780	0.000	0	1083	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1685	1685	421	0	1086	2	3209	0.525	1683	164	1.0	1.4	2.969	A
B - A180 E	166	166	42	0	0	1295	717	0.232	166	390	0.2	0.3	7.039	A
C - A180 W	1086	0	0	1086	0	166	2747	0.000	0	1295	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	2063	2063	516	0	1330	2	3209	0.643	2060	200	1.4	2.2	3.936	A
B - A180 E	204	204	51	0	0	1585	547	0.372	202	477	0.3	0.6	11.234	B
C - A180 W	1330	0	0	1330	0	202	2703	0.000	0	1585	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	2063	2063	516	0	1330	2	3209	0.643	2063	201	2.2	2.3	3.959	A
B - A180 E	204	204	51	0	0	1588	545	0.373	204	478	0.6	0.6	11.362	B
C - A180 W	1330	0	0	1330	0	204	2701	0.000	0	1588	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1685	1685	421	0	1086	2	3209	0.525	1688	166	2.3	1.4	2.987	A
B - A180 E	166	166	42	0	0	1299	715	0.233	168	391	0.6	0.3	7.110	A
C - A180 W	1086	0	0	1086	0	168	2745	0.000	0	1299	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1411	1411	353	0	909	2	3209	0.440	1412	138	1.4	1.0	2.527	A
B - A180 E	139	139	35	0	0	1087	839	0.166	140	327	0.3	0.2	5.554	A
C - A180 W	909	0	0	909	0	140	2778	0.000	0	1087	0.0	0.0	0.000	A

2032 Base + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	10.13	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.13	B

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	1	✓	38.00
B - A180 E	1432	✓	142.00
C - A180 W	581	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	AM	ONE HOUR	06:45	08:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1493	100.000
B - A180 E		ONE HOUR	✓	528	100.000
C - A180 W		ONE HOUR	✓	1496	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	192	1301
B - A180 E	528	0	0
C - A180 W	1495	0	1

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	13	70
B - A180 E	3	0	0
C - A180 W	30	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.51	3.67	1.7	A	1370	2055
B - A180 E	0.91	52.52	7.9	F	485	727
C - A180 W	0.00	1.63	0.0	A	1373	1

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1124	1124	281	0	1126	0.75	3211	0.350	1121	394	0.0	0.9	2.745	A
B - A180 E	398	398	99	0	0	977	917	0.433	394	144	0.0	0.8	7.049	A
C - A180 W	1126	0.75	0.19	1126	0	394	2417	0.000	0.75	977	0.0	0.0	1.489	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1342	1342	336	0	1344	0.90	3210	0.418	1341	472	0.9	1.1	3.073	A
B - A180 E	475	475	119	0	0	1169	800	0.593	472	172	0.8	1.5	11.200	B
C - A180 W	1345	0.90	0.22	1344	0	472	2330	0.000	0.90	1169	0.0	0.0	1.545	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1644	1644	411	0	1646	1	3210	0.512	1642	560	1.1	1.7	3.659	A
B - A180 E	581	581	145	0	0	1432	640	0.908	560	211	1.5	6.7	39.117	E
C - A180 W	1647	1	0.28	1646	0	560	2230	0.000	1	1432	0.0	0.0	1.614	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1644	1644	411	0	1646	1	3210	0.512	1644	577	1.7	1.7	3.668	A
B - A180 E	581	581	145	0	0	1434	639	0.909	577	211	6.7	7.9	52.525	F
C - A180 W	1647	1	0.28	1646	0	577	2212	0.001	1	1434	0.0	0.0	1.627	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1342	1342	336	0	1344	0.90	3210	0.418	1344	500	1.7	1.2	3.084	A
B - A180 E	475	475	119	0	0	1172	799	0.594	500	173	7.9	1.6	13.420	B
C - A180 W	1345	0.90	0.22	1344	0	500	2298	0.000	0.90	1172	0.0	0.0	1.566	A

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1124	1124	281	0	1126	0.75	3211	0.350	1125	401	1.2	0.9	2.756	A
B - A180 E	398	398	99	0	0	981	915	0.434	401	145	1.6	0.8	7.250	A
C - A180 W	1126	0.75	0.19	1126	0	401	2410	0.000	0.75	981	0.0	0.0	1.496	A

2032 Base + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout		A, B, C	2.96	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.96	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A160	2	✓	38.00
B - A180 E	1607	✓	142.00
C - A180 W	204	✓	170.00

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set 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	2032 Base + Committed + Development	PM	ONE HOUR	15:45	17:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A160		ONE HOUR	✓	1893	100.000
B - A180 E		ONE HOUR	✓	185	100.000
C - A180 W		ONE HOUR	✓	1240	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	432	1461
B - A180 E	183	2	0
C - A180 W	1240	0	0

Vehicle Mix

HV %s

From	To		
	A - A160	B - A180 E	C - A180 W
A - A160	0	3	35
B - A180 E	8	0	0
C - A180 W	67	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A160	0.65	4.04	2.3	A	1737	2606
B - A180 E	0.38	11.78	0.7	B	170	255
C - A180 W	0.00	0.00	0.0	A	1138	0

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1425	1425	356	0	934	1	3209	0.444	1421	137	0.0	1.0	2.533	A
B - A180 E	139	139	35	0	0	1097	832	0.167	138	326	0.0	0.2	5.592	A
C - A180 W	934	0	0	934	0	138	2780	0.000	0	1097	0.0	0.0	0.000	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1702	1702	425	0	1115	2	3209	0.530	1700	164	1.0	1.4	3.005	A
B - A180 E	166	166	42	0	0	1312	706	0.235	166	390	0.2	0.3	7.180	A
C - A180 W	1115	0	0	1115	0	166	2747	0.000	0	1312	0.0	0.0	0.000	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	2084	2084	521	0	1365	2	3209	0.650	2081	200	1.4	2.3	4.010	A
B - A180 E	204	204	51	0	0	1606	535	0.381	202	477	0.3	0.7	11.639	B
C - A180 W	1365	0	0	1365	0	202	2703	0.000	0	1606	0.0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	2084	2084	521	0	1365	2	3209	0.650	2084	201	2.3	2.3	4.035	A
B - A180 E	204	204	51	0	0	1609	533	0.382	204	478	0.7	0.7	11.784	B
C - A180 W	1365	0	0	1365	0	204	2701	0.000	0	1609	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1702	1702	425	0	1115	2	3209	0.530	1705	166	2.3	1.4	3.026	A
B - A180 E	166	166	42	0	0	1316	704	0.236	168	391	0.7	0.3	7.260	A
C - A180 W	1115	0	0	1115	0	168	2745	0.000	0	1316	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A160	1425	1425	356	0	934	2	3209	0.444	1427	138	1.4	1.0	2.547	A
B - A180 E	139	139	35	0	0	1101	830	0.168	140	327	0.3	0.2	5.636	A
C - A180 W	934	0	0	934	0	140	2778	0.000	0	1101	0.0	0.0	0.000	A

