



Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Projects

Junction Modelling Clarifications Technical Note

Revision A

Deadline 7

July 2023

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1 Preamble (July 2023)

1. This Note has been submitted at the request of the Examining Authority at the Compulsory Acquisition Hearing 2 on the 22 June 2023. The original note was issued to National Highways in May 2023 for the purpose of informing the Statement of Common Ground. Following this preamble, this note presents a copy of the original note.
2. A Technical Note 04 (dated 6 February 2023) was prepared by AECOM and presents a summary of a review on behalf of National Highways of the Development Consent Order (DCO) application material for the Sheringham Shoal Offshore Wind Farm Extension Project (SEP) and Dudgeon Offshore Wind Farm Extension Project (DEP).
3. This note contains numerous references to Technical Note 04 and the salient points raised are repeated.

2 Introduction

4. This note has been drafted in response to Technical Note 04 produced by AECOM on behalf of National Highways in relation to traffic and transport matters for the Sheringham Shoal Offshore Wind Farm Extension Project (SEP) and Dudgeon Offshore Wind Farm Extension Project (DEP).
5. The purpose of this note is to provide a detailed response to all junction modelling queries raised within Technical Note 04.
6. This note is intended for internal consultation purposes between the Applicant and National Highways to inform the Statement of Common Ground. ~~It is not intended to submit this note in this format to the examination.~~

3 Background and Scope

7. Technical Note 04 (dated 6 February 2023) was prepared by AECOM and presents a summary of a review on behalf of National Highways of the Development Consent Order (DCO) application material for SEP and DEP.
8. Technical Note 04 was discussed in detail with AECOM and National Highways at a meeting on 16th March 2023 and the Applicant provided a note to summarise the discussion and agreements (Appendix A: Traffic and Transport Statement of Common Ground Discussions with National Highways).
9. During the discussions with AECOM and National Highways it was agreed that the Applicant would submit a separate note providing further detailed information in regard to junction modelling. This note therefore provides a detailed response to all junction modelling queries raised within Technical Note 04.
10. Technical Note 04 presents a series of recommendations (for consideration by National Highways) and groups them into the following four categories:
 - Recommendations regarded as critical to the acceptance of the application (highlighted **Red**);
 - Recommendations that are regarded as important but not critical to agreement of the application (highlighted **Amber**);
 - Matters that need to be resolved but for which a commitment has been made by the Applicant to resolve them at a later stage (highlighted **Blue**); and
 - Issues that can be agreed as having been closed out (highlighted **Green**).
11. The red matters regarded as being critical to the acceptance of the application were discussed at a meeting with National Highways and AECOM on the 16 March 2023 to agree how they are captured within an update to the Statement of Common Ground (SoCG) at Deadline 3.
12. The amber matters (not critical to the agreement of the application) and blue matters (matters that can be resolved at a later date) were also discussed with National Highways and AECOM at the meeting on the 16 March 2023 to understand if any of these issues should form part of the SoCG.
13. **Table 1** provides details of the junction modelling recommendations highlighted by AECOM in Technical Note 04 (along with the associated Red and Amber ranking)

and the Applicant's response to these (including appropriate references to the salient DCO documents noted by the relevant APP-xxx numbers).

Table 1 Applicant's response to Technical Note 04 junction modelling issues

Theme	TN04 Reference/RAG	Brief Description of issue raised by AECOM/National Highways	Applicants Response
Junction Modelling	R6	TA results tables and outputs for Junction 1 do not correlate for the 'with development scenarios'	<p>The Applicant agrees with the findings of AECOM that the Transport Assessment (TA) results tables [APP-268] do not correlate with the junction modelling inputs and outputs contained within the Annex 7 and 32 of the TA [APP-269] respectively.</p> <p>The Applicant has therefore reviewed all junction modelling and made the following amendments:</p> <ul style="list-style-type: none"> • Updates to the Annex 7 flow diagrams are provided as Appendix 1 of this note. • Updates to the Annex 32 junction modelling outputs are provided as Appendix 2 of this note. • Updates to the TA results tables [APP-268] are provided and Appendix 3 of this note. <p>The following provides a summary of the conclusions of the TA [APP-268] in comparison to the revised junction modelling results (detailed in Appendix 3 of this note) to provide National Highways with an appraisal of any materially changes to the assessment conclusions.</p> <p>Junction 1</p> <p>The TA [APP-268] outlined that the existing junction operates with spare capacity and queues of no more than one vehicle. With the addition of the SEP and DEP traffic, the TA [APP-268] outlined that the B1535 arm of the junction would operate over capacity with significant queuing and delay. The updated junction modelling outputs (Appendix 3) have not resulted in a change to the baseline conditions, however the forecast performance of the junction improves in the with development scenario compared to previously reported results. Notwithstanding, Appendix 3 still shows that with the addition of SEP and DEP traffic the junction would operate over capacity and experience significant queuing and delay. The conclusions of the TA [APP-268] and mitigation strategies outlined within the Outline Construction Traffic Management Plan (OCTMP) (Revision D) [REP5-027] for junction 1 are therefore considered to remain valid.</p> <p>Junction 2, 3, 4, 6 and 8</p>
	R8	TA results tables and outputs for Junction 5 do not correlate for all scenarios	
	R9	Flow diagrams of traffic flow matrices should be provided for each of the SRN junction models so that these can be verified	
	R28	TA results tables and outputs for Junctions 2, 3, 4, 6, 7 & 10 do not correlate for a number of the scenarios; this should be clarified.	

Theme	TN04 Reference/RAG	Brief Description of issue raised by AECOM/National Highways	Applicants Response
			<p>The updated junction modelling outputs (Appendix 3) correlate with the figures presented within the TA [APP-268]. The conclusions of the TA [APP-268] for junctions 2, 3, 4, 6 and 8 are therefore considered to remain valid.</p> <p>Junction 5</p> <p>The TA [APP-268] outlined that the existing junction operates with spare capacity with queues of up to 17 PCUs. With the addition of the SEP and DEP traffic, the TA [APP-268] outlines that the junction would continue to operate with spare capacity and would experience minimal changes in queuing and delay. The updated junction modelling outputs (Appendix 3) have resulted in minor changes for all scenarios. The conclusions of the TA [APP-268] for junction 5 are therefore considered to remain valid.</p> <p>Junction 7</p> <p>The TA [APP-268] outlined that the existing junction operates over capacity with significant queuing. With the addition of the SEP and DEP traffic, the TA [APP-268] outlined that the junction would continue to operate over capacity and users would experience an increase in queues and delays. The updated junction modelling outputs (Appendix 3) have resulted in a worsening of the baseline conditions on the A47 East arm and with the addition of the SEP and DEP traffic Appendix 3 shows that the junction would still operate over capacity and experience significant queuing and delay. The conclusions of the TA [APP-268] and mitigation strategies outlined within the OCTMP [REP1-028] for junction 7 are therefore considered to remain valid.</p> <p>Junction 9</p> <p>The TA [APP-268] outlined that the existing junction operates with spare capacity with queues of no more than two vehicles. With the addition of the SEP and DEP traffic, the TA [APP-268] outlines that the junction would continue to operate with spare capacity and would experience minimal changes in queuing and delay. The updated junction modelling outputs (Appendix 3) have resulted in minor improvements to junction capacity, queuing and delay for all scenarios. The conclusions of the TA [APP-268] for junction 9 are therefore considered to remain valid.</p> <p>Junction 10</p>

Theme	TN04 Reference/RAG	Brief Description of issue raised by AECOM/National Highways	Applicants Response										
			<p>The TA [APP-268] outlined that the existing junction operates with spare capacity with queues of no more than one vehicle. With the addition of the SEP and DEP traffic, the TA [APP-268] outlines that the junction would continue to operate with spare capacity and would experience minimal changes in queuing and delay. The updated junction modelling outputs (Appendix 3) have resulted in very minor to improvements to junction capacity, queuing and delay for some scenarios. The conclusions of the TA [APP-268] for junction 10 are therefore considered to remain valid.</p> <p>Junction 11</p> <p>The TA [APP-268] outlined that the existing junction operates with spare capacity with queues of no more than one vehicle. With the addition of the SEP and DEP traffic, the TA [APP-268] outlined that the junction would continue to operate with spare capacity and would experience minimal changes in queuing and delay. The updated junction modelling outputs (Appendix 3) have resulted very minor improvements to junction capacity for one scenario only. The conclusions of the TA [APP-268] for junction 11 are therefore considered to remain valid.</p>										
	R11	<p>The modelling for the Thickthorn Interchange Junction should be revisited as appropriate as the results showing that there are no capacity issues is surprising given that there is a RIS scheme proposed at this location to relieve congestion.</p>	<p>The modelling scenarios presented in the TA [APP-268] represent the shoulder peak hours of 06:30 to 07:30 for the morning peak and 17:25 to 18:25. These periods were agreed with National Highways at Expert Topic Group Meeting (ETG) 5 (05 April 2022) (detailed within Evidence Plan Agreement Log [APP-030]) as a representative worst case scenario for assessing sensitive junctions when considering the periods during which the peak SEP and/or DEP traffic demand could manifest.</p> <p>The following table provides a comparison of the network and shoulder peak traffic flows for Junction 5 (extrapolated from Annex 2 of the TA [APP-269]).</p> <table border="1" data-bbox="1032 1166 1865 1404"> <thead> <tr> <th data-bbox="1039 1171 1630 1209">2021 observed vehicle movements</th> <th data-bbox="1637 1171 1859 1209">Junction 5</th> </tr> </thead> <tbody> <tr> <td data-bbox="1039 1214 1630 1252">06:30 – 07:30 (shoulder peak)</td> <td data-bbox="1637 1214 1859 1252">4,625</td> </tr> <tr> <td data-bbox="1039 1257 1630 1295">07:30 – 08:30 (network peak)</td> <td data-bbox="1637 1257 1859 1295">6,745</td> </tr> <tr> <td data-bbox="1039 1300 1630 1339">Difference between shoulder and network peak</td> <td data-bbox="1637 1300 1859 1339">2,120 (~37%)</td> </tr> <tr> <td data-bbox="1039 1343 1630 1382">17:25 – 18:25 (shoulder peak)</td> <td data-bbox="1637 1343 1859 1382">4,976</td> </tr> </tbody> </table>	2021 observed vehicle movements	Junction 5	06:30 – 07:30 (shoulder peak)	4,625	07:30 – 08:30 (network peak)	6,745	Difference between shoulder and network peak	2,120 (~37%)	17:25 – 18:25 (shoulder peak)	4,976
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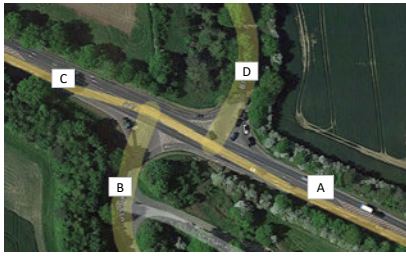
Theme	TN04 Reference/RAG	Brief Description of issue raised by AECOM/National Highways	Applicants Response					
			<table border="1" data-bbox="1034 384 1865 480"> <tr> <td data-bbox="1034 384 1639 427">16:25 – 17:25 (network peak)</td> <td data-bbox="1646 384 1865 427">6,168</td> </tr> <tr> <td data-bbox="1034 432 1639 475">Difference between shoulder and network peak</td> <td data-bbox="1646 432 1865 475">1,192 (~21%)</td> </tr> </table> <p data-bbox="1034 531 2045 587">It can be noted from the table above that there are significant differences between the peak and shoulder peak movements through the junction.</p>		16:25 – 17:25 (network peak)	6,168	Difference between shoulder and network peak	1,192 (~21%)
16:25 – 17:25 (network peak)	6,168							
Difference between shoulder and network peak	1,192 (~21%)							
	R26	The observed peak hour should be set out in order to identify how the shoulder peak periods relate to the prevailing peak hour.	<p data-bbox="1034 608 2045 663">Paragraphs 118 and 119 of the TA [APP-268] outline a summary of an agreement with National Highways (NH) in relation to the periods to be assessed:</p> <p data-bbox="1034 684 2045 831"><i>“... It has been agreed with NH (at a meeting on the 5 April 2022) that a representative worst case scenario for assessing sensitive junctions would be during the period immediately preceding the morning network peak and immediately following evening network peaks, (known as shoulder peaks). These shoulder peak periods are identified as:</i></p> <ul data-bbox="1077 855 1350 919" style="list-style-type: none"> • 06:30 – 07:30; and • 17:25 – 18:25. <p data-bbox="1034 927 2045 1110"><i>The rationale for these worst-case scenarios is that it is considered representative of the time when the peak SEP and/or DEP traffic demand associated with employee trips (LVs) could manifest if there was any divergence in the working hours of 07:00 to 19:00 (e.g. administration staff arriving later or earlier shift finishes to accommodate onward travel to home). The shoulder peak periods would also contain the hourly SEP and/or DEP HGV demand as delivery to and from site would have commenced.”</i></p>					
	R27	For Junctions 2 & 7, the modelled period for the AM peak appears to be between 07:30-08:30, rather than the intended hour of 06:30-07:30.	<p data-bbox="1034 1131 2045 1345">The Applicant agrees that both the am and pm scenarios within the Junction 2 and 7 model outputs (contained within Annex 32 of the TA [APP-269]) were incorrectly showing the network peak time periods of 07:30 to 08:30 and 16:25 to 17:25 respectively. The Applicant clarifies that data used within the model did however use the correct shoulder peak time periods. Notwithstanding, the time periods notated within the model outputs have been corrected as part of the wider amendments to the junction modelling presented within Appendix 2 of this note.</p>					

Theme	TN04 Reference/RAG	Brief Description of issue raised by AECOM/National Highways	Applicants Response
	R29	The 'lane simulation' function may be useful when modelling Junction 6 - if the modelling is updated, the use of this function should be considered.	<p>The Applicant has undertaken a comparison of modelling Junction 6 using the lane simulation function for 2021 and 2025 baseline situations, the outputs of this modelling are presented in Appendix 4. It can be observed from Appendix 4 that with the exception of the A140 North during the evening periods the outputs are broadly comparable to the outputs contained within Appendix 2 (without lane simulation). With regard to the A140 North, Appendix 4 suggests that in 2021 the level of service (LOS) would be D (approaching unstable flow) and that with the application of background traffic growth, by 2025 the LOS would be F (Forced or broken down). When considering observed queue lengths in 2021 (Annex 2 of the TA [APP-269]) it can be noted that there would be an average of three vehicles and therefore LOS of D is not considered to be representative of baseline conditions.</p> <p>Noting that the junction modelling (Appendix 3) demonstrates that the impact of SEP and DEP traffic would not be significant and that Appendix 4 doesn't validate with observed junction performance it is reasoned that the use of lane simulation for Junction 6 is not appropriate.</p>
	R30	For Junction 7, the flare length included within the model set up for the A47 east arm appears to be excessive.	The Applicant has revised the geometry measurements for junction 7 and 9 as suggested by AECOM. Updates to the Annex 32 junction modelling outputs are provided as Appendix 2 and updates to the TA results tables [APP-268] are provided and Appendix 3 of this note.
	R32	The geometry measurements for the A47 north approach to Junction 9 differ to AECOMs measurements; these measurements should be revisited and the modelling result updated as appropriate.	<p>The following provides a summary of the conclusions of the TA [APP-268] in comparison to the revised junction modelling results (detailed in Appendix 3) to provide National Highways with an appraisal of any material changes to the assessment conclusions.</p> <p>Junction 7</p> <p>The TA [APP-268] outlined that the existing junction operates over capacity with significant queuing. With the addition of the SEP and DEP traffic, the TA outlined that the junction would continue to operate over capacity and users would experience and increase in queues and delays. The updated junction modelling outputs (Appendix 3) have resulted in a worsening of the baseline conditions on the A47 East arm and with the addition of the SEP and DEP traffic Appendix 3 shows that (with the revised geometry) the junction would still operate over capacity and experience significant</p>

Theme	TN04 Reference/RAG	Brief Description of issue raised by AECOM/National Highways	Applicants Response
			<p>queuing and delay. The conclusions of the TA [APP-268] and mitigation strategies outlined within the OCTMP [REP1-028] for junction 7 are therefore considered to remain valid.</p> <p>Junction 9</p> <p>The TA [APP-268] outlined that the existing junction operates with spare capacity with queues of no more than two vehicles. With the addition of the SEP and DEP traffic, the TA outlines that the junction would continue to operate with spare capacity and would experience minimal changes in queuing and delay. The updated junction modelling outputs (Appendix 3) have resulted in minor improvements to junction capacity, queuing and delay for all scenarios. The conclusions of the TA [APP-268] for junction 9 are therefore considered to remain valid.</p>
	R31	The Google Maps traffic function appears to show some congestion at Junction 8, particularly during the PM peak; the modelling results appear to contradict this and further clarification should be provided with regards to this.	The Applicant has reviewed the inputs to the model and confirms that they correctly align with the observed turning counts. The Applicant would also reiterate its response to R11 which confirmed that the junction modelling is based upon shoulder rather than network peak hours.
Mitigation Proposals Junction 2 (Blind Lane/ Taverham Road/ A47)	R7	Plans clearly showing mitigation proposals should be provided so that the modelling can be verified.	A plan of the mitigation measures proposed at the junction of the A47/Blind Lane and Taverham Road is provided as Appendix 5 of this note. The plan provided as Appendix 5 has informed the geometry modelling presented within Appendix 2 .

Appendix 1 Amended Annex 7 Forecast Future Year (2025) Traffic Flows - Sensitive Junctions

Junction 1 - A47 / Berry's Lane Junction



Notes

Arm	Link	Road Name
A	89	A47 east of B1535
B	-	Berrys Lane
C	86	A47 west of B1535
D	85	B1535

Growth Factor	AM Peak	PM Peak
All Vehicles	1.0777	1.0794

Vehicles HGVs

Surveyed Flows (2021)

AM Peak Traffic
Tuesday 16th November 2021: 06:30 - 07:30 AM

Vehicles

From/To	A	B	C	D	Totals
A	0	2	601	97	700
B	1	0	22	16	39
C	792	53	0	58	903
D	105	7	25	0	137
Totals	898	62	648	171	1779

HGVs

From/To	A	B	C	D	Totals
A	0	0	59	10	69
B	0	0	0	0	0
C	91	1	0	8	100
D	32	0	0	0	32
Totals	123	1	59	18	201

Total

From/To	A	B	C	D	Totals
A	0	2	660	107	769
B	1	0	22	16	39
C	883	54	0	66	1003
D	137	7	25	0	169
Totals	1021	63	707	189	1980

%HGV

From/To	A	B	C	D	Average
A	0.0%	0.0%	8.9%	9.3%	5%
B	0.0%	0.0%	0.0%	0.0%	0%
C	10.3%	1.9%	0.0%	12.1%	6%
D	23.4%	0.0%	0.0%	0.0%	6%
Average	8%	0%	2%	5%	4%

PM Peak Traffic
Tuesday 16th November 2021: 17:25 - 18:25 PM

Vehicles

From/To	A	B	C	D	Totals
A	0	0	834	112	946
B	1	0	42	10	53
C	654	30	0	52	736
D	122	12	35	0	169
Totals	777	42	911	174	1904

HGVs

From/To	A	B	C	D	Totals
A	0	0	36	1	37
B	0	0	1	0	1
C	33	0	0	1	34
D	4	0	0	0	4
Totals	37	0	37	2	76

Total

From/To	A	B	C	D	Totals
A	0	0	870	113	983
B	1	0	43	10	54
C	687	30	0	53	770
D	126	12	35	0	173
Totals	814	42	948	176	1980

%HGV

From/To	A	B	C	D	Average
A	0.0%	0.0%	4.1%	0.9%	1%
B	0.0%	0.0%	2.3%	0.0%	1%
C	4.8%	0.0%	0.0%	1.9%	2%
D	3.2%	0.0%	0.0%	0.0%	1%
Average	2%	0%	2%	1%	1%

Forecast Flows (2025)

Growth Factored Vehicles

From/To	A	B	C	D	Totals
A	0	2	648	105	754
B	1	0	24	17	42
C	854	57	0	63	973
D	113	8	27	0	148
Totals	968	67	698	184	1917

Growth Factored HGVs

From/To	A	B	C	D	Totals
A	0	0	64	11	74
B	0	0	0	0	0
C	98	1	0	9	108
D	34	0	0	0	34
Totals	133	1	64	19	217

Growth Factored Total

From/To	A	B	C	D	Totals
A	0	2	711	115	829
B	1	0	24	17	42
C	952	58	0	71	1081
D	148	8	27	0	182
Totals	1100	68	762	204	2134

%HGV

From/To	A	B	C	D	Average
A	0.0%	0.0%	8.9%	9.3%	5%
B	0.0%	0.0%	0.0%	0.0%	0%
C	10.3%	1.9%	0.0%	12.1%	6%
D	23.4%	0.0%	0.0%	0.0%	6%
Average	8%	0%	2%	5%	4%

Growth Factored Vehicles

From/To	A	B	C	D	Totals
A	0	0	900	121	1021
B	1	0	45	11	57
C	706	32	0	56	794
D	132	13	38	0	182
Totals	839	45	983	188	2055

Growth Factored HGVs

From/To	A	B	C	D	Totals
A	0	0	39	1	40
B	0	0	1	0	1
C	36	0	0	1	37
D	4	0	0	0	4
Totals	40	0	40	2	82

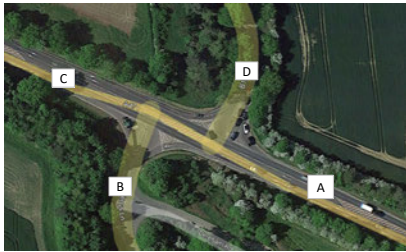
Growth Factored Total

From/To	A	B	C	D	Totals
A	0	0	939	122	1061
B	1	0	46	11	58
C	742	32	0	57	831
D	136	13	38	0	187
Totals	879	45	1023	190	2137

%HGV

From/To	A	B	C	D	Average
A	0.0%	0.0%	4.1%	0.9%	1%
B	0.0%	0.0%	2.3%	0.0%	1%
C	4.8%	0.0%	0.0%	1.9%	2%
D	3.2%	0.0%	0.0%	0.0%	1%
Average	2%	0%	2%	1%	1%

Junction 1 - A47 / Berry's Lane Junction



Notes

Arm	Link	Road Name
A	89	A47 east of B1535
B	-	Berrys Lane
C	86	A47 west of B1535
D	85	B1535

Growth Factor	AM Peak	PM Peak
All Vehicles	1.0777	1.0794

Vehicles HGVs

Construction Flows (SEP or DEP in Isolation)

AM Peak Traffic

Vehicles					
From/To	A	B	C	D	Totals
A	0	0	0	35	35
B	0	0	0	0	0
C	68	0	0	36	103
D	22	0	0	0	22
Totals	90	0	0	70	160

HGVs					
From/To	A	B	C	D	Totals
A	0	0	13	0	13
B	0	0	0	0	0
C	13	0	0	2	15
D	0	0	2	0	2
Totals	13	0	15	2	29

Total					
From/To	A	B	C	D	Totals
A	0	0	13	35	48
B	0	0	0	0	0
C	81	0	0	37	118
D	22	0	2	0	24
Totals	103	0	15	72	189

%HGV					
From/To	A	B	C	D	Average
A	0.0%	0.0%	100.0%	0.0%	25%
B	0.0%	0.0%	0.0%	0.0%	0%
C	15.8%	0.0%	0.0%	4.8%	5%
D	0.0%	0.0%	100.0%	0.0%	25%
Average	4%	0%	50%	1%	14%

PM Peak Traffic

Vehicles					
From/To	A	B	C	D	Totals
A	0	0	68	22	90
B	0	0	0	0	0
C	0	0	0	0	0
D	35	0	36	0	70
Totals	35	0	103	22	160

HGVs					
From/To	A	B	C	D	Totals
A	0	0	13	0	13
B	0	0	0	0	0
C	13	0	0	2	15
D	0	0	2	0	2
Totals	13	0	15	2	29

Total					
From/To	A	B	C	D	Totals
A	0	0	81	22	103
B	0	0	0	0	0
C	13	0	0	2	15
D	35	0	37	0	72
Totals	48	0	118	24	189

%HGV					
From/To	A	B	C	D	Average
A	0.0%	0.0%	15.8%	0.0%	4%
B	0.0%	0.0%	0.0%	0.0%	0%
C	100.0%	0.0%	0.0%	100.0%	50%
D	0.0%	0.0%	4.8%	0.0%	1%
Average	25%	0%	5%	25%	14%

Forecast Flows + Construction Flows (SEP or DEP in Isolation)

AM Peak Traffic

Vehicles					
From/To	A	B	C	D	Totals
A	0	2	648	139	789
B	1	0	24	17	42
C	921	57	0	98	1077
D	135	8	27	0	170
Totals	1058	67	698	255	2078

HGVs					
From/To	A	B	C	D	Totals
A	0	0	76	11	87
B	0	0	0	0	0
C	111	1	0	10	122
D	34	0	2	0	36
Totals	145	1	78	21	246

Total					
From/To	A	B	C	D	Totals
A	0	2	724	150	876
B	1	0	24	17	42
C	1032	58	0	108	1199
D	170	8	29	0	206
Totals	1203	68	776	276	2323

%HGV					
From/To	A	B	C	D	Average
A	0.0%	0.0%	10.5%	7.2%	4%
B	0.0%	0.0%	0.0%	0.0%	0%
C	10.7%	1.9%	0.0%	9.6%	6%
D	20.3%	0.0%	6.3%	0.0%	7%
Average	8%	0%	4%	4%	4%

PM Peak Traffic

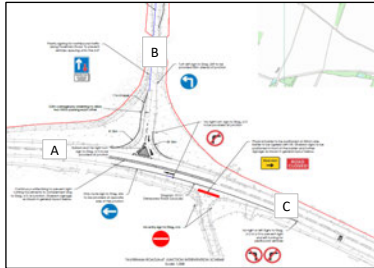
Vehicles					
From/To	A	B	C	D	Totals
A	0	0	968	143	1111
B	1	0	45	11	57
C	706	32	0	56	794
D	167	13	73	0	253
Totals	874	45	1087	210	2216

HGVs					
From/To	A	B	C	D	Totals
A	0	0	52	1	53
B	0	0	1	0	1
C	48	0	0	3	51
D	4	0	2	0	6
Totals	53	0	54	4	111

Total					
From/To	A	B	C	D	Totals
A	0	0	1020	144	1164
B	1	0	46	11	58
C	754	32	0	59	846
D	171	13	75	0	259
Totals	926	45	1141	214	2327

%HGV					
From/To	A	B	C	D	Average
A	0.0%	0.0%	5.1%	0.7%	1%
B	0.0%	0.0%	2.3%	0.0%	1%
C	6.4%	0.0%	0.0%	4.9%	3%
D	2.5%	0.0%	2.4%	0.0%	1%
Average	2%	0%	2%	1%	2%

Junction 2a - A47 / Taverham Road Junction (Hornsea Project Three Layout)



Notes

Arm	Link	Road Name
A	94	A47 West of Taverham Road
B	-	Taverham Road
C	89	A47 East of Taverham Road
	90	Blind Lane (closed)

Growth Factor	AM Peak	PM Peak
All Vehicles	1.0777	1.0794

Vehicles HGVs

Surveyed Flows (2021)

AM Peak Traffic

Tuesday 16th November 2021: 06:30 - 07:30 AM

Vehicles

From/To	A	B	C	Totals
A	0	9	975	984
B	0	0	6	6
C	784	0	0	784
Totals	784	9	981	1774

HGVs

From/To	A	B	C	Totals
A	0	0	123	123
B	0	0	1	1
C	73	0	0	73
Totals	73	0	124	197

Total

From/To	A	B	C	Totals
A	0	9	1098	1107
B	0	0	7	7
C	857	0	0	857
Totals	857	9	1105	1971

%HGV

From/To	A	B	C	Average
A	0.0%	0.0%	11.2%	4%
B	0.0%	0.0%	14.3%	5%
C	8.5%	0.0%	0.0%	3%
Average	3%	0%	8%	4%

PM Peak Traffic

Tuesday 16th November 2021: 17:25 - 18:25 PM

Vehicles

From/To	A	B	C	Totals
A	0	20	857	877
B	0	0	8	8
C	1023	0	0	1023
Totals	1023	20	865	1908

HGVs

From/To	A	B	C	Totals
A	0	0	39	39
B	0	0	1	1
C	39	0	0	39
Totals	39	0	40	79

Total

From/To	A	B	C	Totals
A	0	20	896	916
B	0	0	9	9
C	1062	0	0	1062
Totals	1062	20	905	1987

%HGV

From/To	A	B	C	Average
A	0.0%	0.0%	4.4%	1%
B	0.0%	0.0%	11.1%	4%
C	3.7%	0.0%	0.0%	1%
Average	1%	0%	5%	2%

Forecast Flows (2025)

Growth Factored Vehicles

From/To	A	B	C	Totals
A	0	10	1051	1060
B	0	0	6	6
C	845	0	0	845
Totals	845	10	1057	1912

Growth Factored HGVs

From/To	A	B	C	Totals
A	0	0	133	133
B	0	0	1	1
C	79	0	0	79
Totals	79	0	134	212

Growth Factored Total

From/To	A	B	C	Totals
A	0	10	1183	1193
B	0	0	8	8
C	924	0	0	924
Totals	924	10	1191	2124

%HGV

From/To	A	B	C	Average
A	0.0%	0.0%	11.2%	4%
B	0.0%	0.0%	14.3%	5%
C	8.5%	0.0%	0.0%	3%
Average	3%	0%	8%	4%

Growth Factored Vehicles

From/To	A	B	C	Totals
A	0	22	925	947
B	0	0	9	9
C	1104	0	0	1104
Totals	1104	22	934	2059

Growth Factored HGVs

From/To	A	B	C	Totals
A	0	0	42	42
B	0	0	1	1
C	42	0	0	42
Totals	42	0	43	85

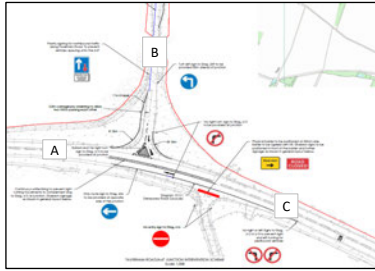
Growth Factored Total

From/To	A	B	C	Totals
A	0	22	967	989
B	0	0	10	10
C	1146	0	0	1146
Totals	1146	22	977	2145

%HGV

From/To	A	B	C	Average
A	0.0%	0.0%	4.4%	1%
B	0.0%	0.0%	11.1%	4%
C	3.7%	0.0%	0.0%	1%
Average	1%	0%	5%	2%

Junction 2a - A47 / Taverham Road Junction (Hornsea Project Three Layout)



Notes

Arm	Link	Road Name
A	94	A47 West of Taverham Road
B	-	Taverham Road
C	89	A47 East of Taverham Road
	90	Blind Lane (closed)

Growth Factor	AM Peak	PM Peak
All Vehicles	1.0777	1.0794

Vehicles HGVs

Construction Flows (SEP or DEP in Isolation)

AM Peak Traffic

Vehicles				
From/To	A	B	C	Totals
A	0	42	67	109
B	0	0	0	0
C	44	0	0	44
Totals	44	42	67	153

HGVs				
From/To	A	B	C	Totals
A	0	3	18	21
B	0	0	3	3
C	21	0	0	21
Totals	21	3	21	45

Total				
From/To	A	B	C	Totals
A	0	45	85	130
B	0	0	3	3
C	65	0	0	65
Totals	65	45	88	198

%HGV				
From/To	A	B	C	Average
A	0.0%	6.9%	21.3%	9%
B	0.0%	0.0%	100.0%	33%
C	32.7%	0.0%	0.0%	11%
Average	11%	2%	40%	18%

PM Peak Traffic

Vehicles				
From/To	A	B	C	Totals
A	0	0	7	7
B	6	0	42	48
C	73	0	0	73
Totals	79	0	50	129

HGVs				
From/To	A	B	C	Totals
A	0	3	18	21
B	0	0	3	3
C	21	0	0	21
Totals	21	3	21	45

Total				
From/To	A	B	C	Totals
A	0	3	25	29
B	6	0	45	52
C	94	0	0	94
Totals	100	3	71	174

%HGV				
From/To	A	B	C	Average
A	0.0%	100.0%	71.0%	57%
B	0.0%	0.0%	6.9%	2%
C	22.5%	0.0%	0.0%	8%
Average	8%	33%	26%	22%

Forecast Flows + Construction Flows (SEP or DEP in Isolation)

AM Peak Traffic

Vehicles				
From/To	A	B	C	Totals
A	0	52	1118	1170
B	0	0	6	6
C	888	0	0	888
Totals	888	52	1124	2065

HGVs				
From/To	A	B	C	Totals
A	0	3	151	154
B	0	0	4	4
C	100	0	0	100
Totals	100	3	155	258

Total				
From/To	A	B	C	Totals
A	0	55	1268	1323
B	0	0	11	11
C	988	0	0	988
Totals	988	55	1279	2322

%HGV				
From/To	A	B	C	Average
A	0.0%	5.7%	11.9%	6%
B	0.0%	0.0%	39.3%	13%
C	10.1%	0.0%	0.0%	3%
Average	3%	2%	17%	7%

PM Peak Traffic

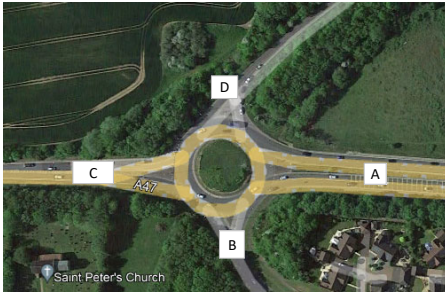
Vehicles				
From/To	A	B	C	Totals
A	0	22	932	954
B	6	0	51	57
C	1177	0	0	1177
Totals	1183	22	983	2188

HGVs				
From/To	A	B	C	Totals
A	0	3	60	63
B	0	0	4	4
C	63	0	0	63
Totals	63	3	64	131

Total				
From/To	A	B	C	Totals
A	0	25	993	1017
B	6	0	55	61
C	1240	0	0	1240
Totals	1247	25	1048	2319

%HGV				
From/To	A	B	C	Average
A	0.0%	12.6%	6.1%	6%
B	0.0%	0.0%	7.6%	3%
C	5.1%	0.0%	0.0%	2%
Average	2%	4%	5%	3%

Junction 3 - A47 / Dereham Road Roundabout



Notes

Arm	Link	Road Name
A	95	A47 East
B	93	Dereham Road
C	94	A47 West
D	-	Church Lane

Growth Factor	AM	PM
All Vehicles	1.0777	1.0794

Vehicles HGVs

Surveyed Flows (2021)

AM Peak Traffic
Tuesday 16th November 2021: 06:30 - 07:30 AM

Vehicles

From/To	A	B	C	D	Totals
A	3	46	736	53	838
B	26	0	23	7	56
C	947	31	0	10	988
D	112	9	30	0	151
Totals	1088	86	789	70	2033

HGVs

From/To	A	B	C	D	Totals
A	0	1	75	0	76
B	0	0	1	0	1
C	120	3	0	0	123
D	0	0	0	0	0
Totals	120	4	76	0	200

Total

From/To	A	B	C	D	Totals
A	3	47	811	53	914
B	26	0	24	7	57
C	1067	34	0	10	1111
D	112	9	30	0	151
Totals	1208	90	865	70	2233

%HGV

From/To	A	B	C	D	Average
A	0.0%	2.1%	9.2%	0.0%	3%
B	0.0%	0.0%	4.2%	0.0%	1%
C	11.2%	8.8%	0.0%	0.0%	5%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	3%	3%	3%	0%	2%

PM Peak Traffic
Tuesday 16th November 2021: 17:25 - 18:25 PM

Vehicles

From/To	A	B	C	D	Totals
A	7	17	960	82	1066
B	24	0	57	21	102
C	810	43	0	12	865
D	59	10	23	0	92
Totals	900	70	1040	115	2125

HGVs

From/To	A	B	C	D	Totals
A	1	0	36	0	36
B	0	0	1	0	1
C	38	4	0	0	42
D	0	0	0	0	0
Totals	39	4	37	0	80

Total

From/To	A	B	C	D	Totals
A	8	17	996	82	1103
B	24	0	58	21	103
C	848	47	0	12	907
D	59	10	23	0	92
Totals	939	74	1077	115	2205

%HGV

From/To	A	B	C	D	Average
A	12.5%	0.0%	3.6%	0.0%	4%
B	0.0%	0.0%	1.7%	0.0%	0%
C	4.5%	8.5%	0.0%	0.0%	3%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	4%	2%	1%	0%	2%

Forecast Flows (2025)

Growth Factored Vehicles

From/To	A	B	C	D	Totals
A	3	50	793	57	903
B	28	0	25	8	60
C	1021	33	0	11	1065
D	121	10	32	0	163
Totals	1173	93	850	75	2191

Growth Factored HGVs

From/To	A	B	C	D	Totals
A	0	1	81	0	82
B	0	0	1	0	1
C	129	3	0	0	133
D	0	0	0	0	0
Totals	129	4	82	0	216

Growth Factored Total

From/To	A	B	C	D	Totals
A	3	51	874	57	985
B	28	0	26	8	61
C	1150	37	0	11	1197
D	121	10	32	0	163
Totals	1302	97	932	75	2407

%HGV

From/To	A	B	C	D	Average
A	0.0%	2.1%	9.2%	0.0%	3%
B	0.0%	0.0%	4.2%	0.0%	1%
C	11.2%	8.8%	0.0%	0.0%	5%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	3%	3%	3%	0%	2%

Growth Factored Vehicles

From/To	A	B	C	D	Totals
A	8	18	1036	89	1151
B	26	0	62	23	110
C	874	46	0	13	934
D	64	11	25	0	99
Totals	971	76	1123	124	2294

Growth Factored HGVs

From/To	A	B	C	D	Totals
A	1	0	39	0	40
B	0	0	1	0	1
C	41	4	0	0	45
D	0	0	0	0	0
Totals	42	4	40	0	86

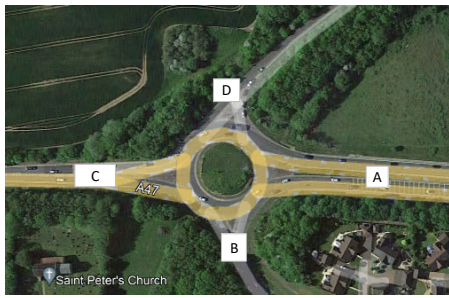
Growth Factored Total

From/To	A	B	C	D	Totals
A	9	18	1075	89	1191
B	26	0	63	23	111
C	915	51	0	13	979
D	64	11	25	0	99
Totals	1014	80	1163	124	2380

%HGV

From/To	A	B	C	D	Average
A	12.5%	0.0%	3.6%	0.0%	4%
B	0.0%	0.0%	1.7%	0.0%	0%
C	4.5%	8.5%	0.0%	0.0%	3%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	4%	2%	1%	0%	2%

Junction 3 - A47 / Dereham Road Roundabout



Notes

Arm	Link	Road Name
A	95	A47 East
B	93	Dereham Road
C	94	A47 West
D	-	Church Lane

Growth Factor	AM	PM
All Vehicles	1.0777	1.0794

Vehicles HGVs

Construction Flows (SEP or DEP in Isolation)

AM Peak Traffic

From/To	A	B	C	D	Totals
A	0	29	63	0	93
B	0	0	0	0	0
C	47	11	0	0	58
D	0	0	0	0	0
Totals	47	41	63	0	151

From/To	A	B	C	D	Totals
A	0	0	30	0	30
B	0	0	0	0	1
C	30	12	0	0	42
D	0	0	0	0	0
Totals	30	12	30	0	72

From/To	A	B	C	D	Totals
A	0	30	93	0	123
B	0	0	0	0	1
C	76	23	0	0	100
D	0	0	0	0	0
Totals	77	53	93	0	223

From/To	A	B	C	D	Average
A	0.0%	0.7%	31.8%	0.0%	8%
B	100.0%	0.0%	100.0%	0.0%	50%
C	38.7%	52.1%	0.0%	0.0%	23%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	35%	13%	33%	0%	20%

PM Peak Traffic

From/To	A	B	C	D	Totals
A	0	0	47	0	47
B	29	0	11	0	41
C	63	0	0	0	63
D	0	0	0	0	0
Totals	93	0	58	0	151

From/To	A	B	C	D	Totals
A	0	0	30	0	30
B	0	0	12	0	12
C	30	0	0	0	30
D	0	0	0	0	0
Totals	30	1	42	0	72

From/To	A	B	C	D	Totals
A	0	0	76	0	77
B	30	0	23	0	53
C	93	0	0	0	93
D	0	0	0	0	0
Totals	123	1	100	0	223

From/To	A	B	C	D	Average
A	0.0%	100.0%	38.7%	0.0%	35%
B	0.7%	0.0%	52.1%	0.0%	13%
C	31.8%	100.0%	0.0%	0.0%	33%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	8%	50%	23%	0%	20%

Forecast Flows + Construction Flows (SEP or DEP in Isolation)

AM Peak Traffic

From/To	A	B	C	D	Totals
A	3	79	857	57	996
B	28	0	25	8	60
C	1067	45	0	11	1123
D	121	10	32	0	163
Totals	1219	133	914	75	2342

From/To	A	B	C	D	Totals
A	0	1	110	0	112
B	0	0	1	0	2
C	159	15	0	0	174
D	0	0	0	0	0
Totals	159	17	112	0	288

From/To	A	B	C	D	Totals
A	3	80	967	57	1108
B	28	0	26	8	62
C	1226	60	0	11	1297
D	121	10	32	0	163
Totals	1378	150	1025	75	2629

From/To	A	B	C	D	Average
A	0.0%	1.6%	11.4%	0.0%	3%
B	0.8%	0.0%	5.2%	0.0%	1%
C	13.0%	25.7%	0.0%	0.0%	10%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	3%	7%	4%	0%	4%

PM Peak Traffic

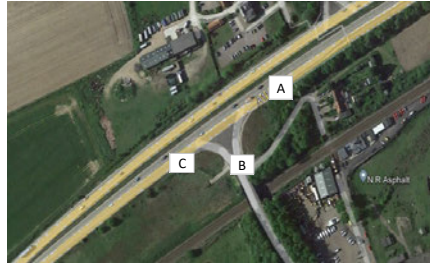
From/To	A	B	C	D	Totals
A	8	18	1083	89	1197
B	55	0	73	23	151
C	938	46	0	13	997
D	64	11	25	0	99
Totals	1064	76	1181	124	2445

From/To	A	B	C	D	Totals
A	1	0	68	0	69
B	0	0	13	0	14
C	71	5	0	0	75
D	0	0	0	0	0
Totals	72	5	82	0	158

From/To	A	B	C	D	Totals
A	9	19	1151	89	1267
B	56	0	86	23	164
C	1008	51	0	13	1072
D	64	11	25	0	99
Totals	1136	80	1262	124	2603

From/To	A	B	C	D	Average
A	12.5%	1.2%	5.9%	0.0%	5%
B	0.4%	0.0%	15.5%	0.0%	4%
C	7.0%	9.0%	0.0%	0.0%	4%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	5%	3%	5%	0%	3%

Junction 4 - A11 / Station Lane Junction



Notes

Arm	Link	Road Name
A	114	A11 east of Station Lane
B	118	Station Lane
C	114	A11 west of Station Lane

Growth Factor	AM Peak	PM Peak
All Vehicles	1.0777	1.0794

Vehicles HGVs

Surveyed Flows (2021)

AM Peak Traffic
Tuesday 16th November 2021: 06:30 - 07:30 AM

Vehicles

From/To	A	B	C	Totals
A	0	75	1557	1632
B	0	0	6	6
C	0	0	0	0
Totals	0	75	1563	1638

HGVs

From/To	A	B	C	Totals
A	0	7	103	110
B	0	0	21	21
C	0	0	0	0
Totals	0	7	124	131

Total

From/To	A	B	C	Totals
A	0	82	1660	1742
B	0	0	27	27
C	0	0	0	0
Totals	0	82	1687	1769

%HGV

From/To	A	B	C	Average
A	0.0%	8.5%	6.2%	5%
B	0.0%	0.0%	77.8%	26%
C	0.0%	0.0%	0.0%	0%
Average	0%	3%	28%	10%

PM Peak Traffic
Tuesday 16th November 2021: 17:25 - 18:25 PM

Vehicles

From/To	A	B	C	Totals
A	0	58	1446	1504
B	0	0	8	8
C	0	0	0	0
Totals	0	58	1454	1512

HGVs

From/To	A	B	C	Totals
A	0	1	49	50
B	0	0	1	1
C	0	0	0	0
Totals	0	1	50	51

Total

From/To	A	B	C	Totals
A	0	59	1495	1554
B	0	0	9	9
C	0	0	0	0
Totals	0	59	1504	1563

%HGV

From/To	A	B	C	Average
A	0.0%	1.7%	3.3%	2%
B	0.0%	0.0%	11.1%	4%
C	0.0%	0.0%	0.0%	0%
Average	0%	1%	5%	2%

Forecast Flows (2025)

Growth Factored Vehicles

From/To	A	B	C	Totals
A	0	81	1678	1759
B	0	0	6	6
C	0	0	0	0
Totals	0	81	1684	1765

Growth Factored HGVs

From/To	A	B	C	Totals
A	0	8	111	119
B	0	0	23	23
C	0	0	0	0
Totals	0	8	134	141

Growth Factored Total

From/To	A	B	C	Totals
A	0	88	1789	1877
B	0	0	29	29
C	0	0	0	0
Totals	0	88	1818	1906

%HGV

From/To	A	B	C	Average
A	0.0%	8.5%	6.2%	5%
B	0.0%	0.0%	77.8%	26%
C	0.0%	0.0%	0.0%	0%
Average	0%	3%	28%	10%

Growth Factored Vehicles

From/To	A	B	C	Totals
A	0	63	1561	1623
B	0	0	9	9
C	0	0	0	0
Totals	0	63	1569	1632

Growth Factored HGVs

From/To	A	B	C	Totals
A	0	1	53	54
B	0	0	1	1
C	0	0	0	0
Totals	0	1	54	55

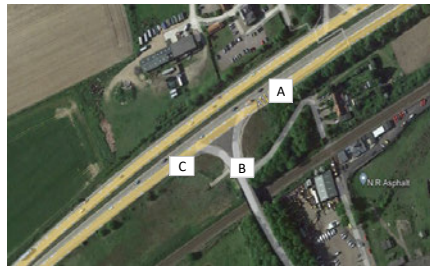
Growth Factored Total

From/To	A	B	C	Totals
A	0	64	1614	1677
B	0	0	10	10
C	0	0	0	0
Totals	0	64	1623	1687

%HGV

From/To	A	B	C	Average
A	0.0%	1.7%	3.3%	2%
B	0.0%	0.0%	11.1%	4%
C	0.0%	0.0%	0.0%	0%
Average	0%	1%	5%	2%

Junction 4 - A11 / Station Lane Junction



Notes

Arm	Link	Road Name
A	114	A11 east of Station Lane
B	118	Station Lane
C	114	A11 west of Station Lane

Growth Factor	AM Peak	PM Peak
All Vehicles	1.0777	1.0794

Vehicles HGVs

Construction Flows (SEP or DEP in Isolation)

AM Peak Traffic

Vehicles				
From/To	A	B	C	Totals
A	0	80	4	83
B	0	0	0	0
C	0	0	0	0
Totals	0	80	4	83

HGVs				
From/To	A	B	C	Totals
A	0	5	4	8
B	0	0	5	5
C	0	0	0	0
Totals	0	5	8	13

Total				
From/To	A	B	C	Totals
A	0	84	7	92
B	0	0	5	5
C	0	0	0	0
Totals	0	84	12	96

%HGV				
From/To	A	B	C	Average
A	0.0%	5.4%	49.7%	18%
B	0.0%	0.0%	100.0%	33%
C	0.0%	0.0%	0.0%	0%
Average	0%	2%	50%	17%

PM Peak Traffic

Vehicles				
From/To	A	B	C	Totals
A	0	0	0	0
B	0	0	80	80
C	0	0	0	0
Totals	0	0	80	80

HGVs				
From/To	A	B	C	Totals
A	0	5	4	8
B	0	0	5	5
C	0	0	0	0
Totals	0	5	8	13

Total				
From/To	A	B	C	Totals
A	0	5	4	8
B	0	0	84	84
C	0	0	0	0
Totals	0	5	88	92

%HGV				
From/To	A	B	C	Average
A	0.0%	100.0%	100.0%	67%
B	0.0%	0.0%	5.4%	2%
C	0.0%	0.0%	0.0%	0%
Average	0%	33%	35%	23%

Forecast Flows + Construction Flows (SEP or DEP in Isolation)

AM Peak Traffic

Vehicles				
From/To	A	B	C	Totals
A	0	160	1682	1842
B	0	0	6	6
C	0	0	0	0
Totals	0	160	1688	1849

HGVs				
From/To	A	B	C	Totals
A	0	12	115	127
B	0	0	27	27
C	0	0	0	0
Totals	0	12	142	154

Total				
From/To	A	B	C	Totals
A	0	172	1796	1969
B	0	0	34	34
C	0	0	0	0
Totals	0	172	1830	2003

%HGV				
From/To	A	B	C	Average
A	0.0%	7.0%	6.4%	4%
B	0.0%	0.0%	80.8%	27%
C	0.0%	0.0%	0.0%	0%
Average	0%	2%	29%	10%

PM Peak Traffic

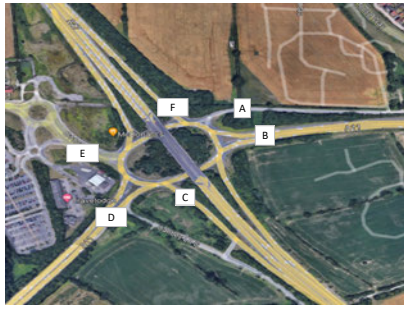
Vehicles				
From/To	A	B	C	Totals
A	0	63	1561	1623
B	0	0	88	88
C	0	0	0	0
Totals	0	63	1649	1712

HGVs				
From/To	A	B	C	Totals
A	0	6	57	62
B	0	0	6	6
C	0	0	0	0
Totals	0	6	62	68

Total				
From/To	A	B	C	Totals
A	0	68	1617	1686
B	0	0	94	94
C	0	0	0	0
Totals	0	68	1711	1780

%HGV				
From/To	A	B	C	Average
A	0.0%	8.3%	3.5%	4%
B	0.0%	0.0%	6.0%	2%
C	0.0%	0.0%	0.0%	0%
Average	0%	3%	3%	2%

Junction 5 - A47 / A11 Roundabout



Notes

Arm	Link	Road Name
A	-	Unnamed Road
B	121	A11 West
C	122	A47 Northbound (off ramp)
D	114	A11 West
E	106	B1172
F	105	A47 Southbound (off ramp)

Growth Factor	AM	PM
All Vehicles	1.0777	1.0794

PCU Factors

Vehicles	HGVs
1	2

Surveyed Flows (2021)

AM Peak Traffic
Tuesday 16th November 2021: 06:30 - 07:30 AM

Vehicles (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	2	0	0	0	0	2
B	3	0	120	520	78	89	810
C	2	292	6	732	155	43	1230
D	1	458	369	6	52	291	1177
E	1	155	257	38	0	7	458
F	0	117	0	346	124	0	587
Totals	7	1024	752	1642	409	430	4264

HGVs (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	2	66	16	8	92
C	2	2	2	96	22	8	132
D	0	92	136	2	20	84	334
E	0	16	14	6	0	12	48
F	0	12	0	50	16	0	78
Totals	2	122	154	220	74	112	684

Total (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	2	0	0	0	0	2
B	3	0	122	586	94	97	902
C	4	294	8	828	177	51	1362
D	1	650	505	8	72	375	1511
E	1	171	271	44	0	19	506
F	0	129	0	396	140	0	665
Totals	9	1146	906	1862	483	542	4948

PM Peak Traffic
Tuesday 16th November 2021: 17:25 - 18:25 PM

Vehicles (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	1	0	0	1
B	0	0	269	633	160	158	1220
C	1	186	1	513	204	21	926
D	2	622	483	5	57	354	1523
E	0	170	330	42	0	45	587
F	0	163	3	330	83	0	579
Totals	3	1141	1086	1524	504	578	4836

HGVs (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	26	18	12	56
C	0	0	2	64	2	0	68
D	0	26	38	0	2	10	76
E	0	12	4	0	0	2	18
F	0	10	0	12	4	0	26
Totals	0	48	44	102	26	24	244

Totals (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	1	0	0	1
B	0	0	269	659	178	170	1276
C	1	188	3	517	206	21	994
D	2	648	521	5	59	364	1599
E	0	182	334	42	0	47	605
F	0	173	3	342	87	0	605
Totals	3	1189	1130	1626	530	602	5080

Forecast Flows (2025)

Growth Factored Vehicles (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	2	0	0	0	0	2
B	3	0	129	560	84	96	873
C	2	315	6	799	167	46	1326
D	1	494	398	6	56	314	1268
E	1	167	277	41	0	8	494
F	0	126	0	373	134	0	633
Totals	8	1104	810	1770	441	463	4595

Growth Factored HGVs (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	2	71	17	9	99
C	2	2	2	103	24	9	142
D	0	99	147	2	22	91	360
E	0	17	15	6	0	13	52
F	0	13	0	54	17	0	84
Totals	2	131	166	237	80	121	737

Growth Factored Total (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	2	0	0	0	0	2
B	3	0	131	632	101	105	972
C	4	317	9	892	191	55	1468
D	1	593	544	9	78	404	1628
E	1	184	292	47	0	20	545
F	0	139	0	427	151	0	717
Totals	10	1235	976	2007	521	684	5332

Growth Factored Vehicles (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	1	0	0	1
B	0	0	290	683	173	171	1317
C	1	201	1	554	220	23	1000
D	2	671	521	5	62	382	1644
E	0	183	356	45	0	49	634
F	0	176	3	356	90	0	625
Totals	3	1232	1172	1645	544	624	5220

Growth Factored HGVs (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	28	19	13	60
C	0	0	2	69	2	0	73
D	0	28	41	0	2	11	82
E	0	13	4	0	0	2	19
F	0	11	0	13	4	0	28
Totals	0	52	47	110	28	26	263

Growth Factored Total (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	1	0	0	1
B	0	0	290	711	192	183	1377
C	1	201	3	623	222	23	1073
D	2	699	562	5	64	393	1726
E	0	196	361	45	0	51	653
F	0	187	3	369	94	0	653
Totals	3	1283	1220	1755	672	680	5463

Junction 5 - A47 / A11 Roundabout



Notes

Arm	Link	Road Name
A	-	Unnamed Road
B	121	A11 West
C	122	A47 Northbound (off ramp)
D	114	A11 West
E	106	B1172
F	105	A47 Southbound (off ramp)

Growth Factor	AM	PM
All Vehicles	1.0777	1.0794

PCU Factors	HGVs
1	2

Construction Flows (SEP or DEP in Isolation)

AM Peak Traffic

Vehicles (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	1	0	2	3
C	0	0	0	26	14	0	40
D	0	0	5	0	0	40	45
E	0	0	0	0	0	0	0
F	0	0	0	47	7	0	54
Totals	0	0	5	74	22	42	143

HGVs (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0
C	0	0	0	1	0	0	1
D	0	0	1	0	0	18	19
E	0	0	0	0	0	6	6
F	0	0	0	18	6	0	24
Totals	0	0	1	19	6	24	49

Total (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	1	0	2	3
C	0	0	0	27	15	0	41
D	0	0	6	0	0	58	64
E	0	0	0	0	0	6	6
F	0	0	0	64	13	0	78
Totals	0	0	6	92	28	66	193

PM Peak Traffic

Vehicles (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0
C	0	0	0	5	0	0	5
D	0	1	26	0	0	0	27
E	0	0	14	0	0	7	22
F	0	2	0	40	0	0	42
Totals	0	3	40	45	0	54	143

HGVs (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0
C	0	0	0	1	0	0	1
D	0	0	1	0	0	18	19
E	0	0	0	0	0	6	6
F	0	0	0	18	6	0	24
Totals	0	0	1	19	6	24	49

Total (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0
C	0	0	0	6	0	0	6
D	0	1	27	0	0	64	92
E	0	0	15	0	0	13	28
F	0	2	0	58	6	0	66
Totals	0	3	41	64	6	78	193

Forecast Flows + Construction Flows (SEP or DEP in Isolation)

AM Peak Traffic

Vehicles (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	2	0	0	0	0	2
B	3	0	129	562	84	98	876
C	2	315	6	815	182	46	1366
D	1	494	403	6	56	354	1314
E	1	167	277	41	0	8	494
F	0	126	0	420	141	0	687
Totals	8	1104	816	1843	463	506	4739

HGVs (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	2	71	17	9	99
C	2	2	2	104	24	9	143
D	0	99	147	2	22	108	378
E	0	17	15	6	0	19	58
F	0	13	0	72	23	0	108
Totals	2	131	167	256	86	144	786

Total (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	2	0	0	0	0	2
B	3	0	131	633	102	106	976
C	4	317	9	919	206	55	1509
D	1	593	550	9	78	462	1692
E	1	184	292	47	0	26	551
F	0	139	0	491	164	0	794
Totals	10	1235	983	2099	549	650	5525

PM Peak Traffic

Vehicles (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	1	0	0	1
B	0	0	290	683	173	171	1317
C	1	201	1	559	220	23	1005
D	2	673	547	5	62	429	1718
E	0	184	371	45	0	56	656
F	0	178	3	398	90	0	667
Totals	3	1235	1213	1690	544	678	5363

HGVs (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	28	19	13	60
C	0	0	2	70	3	0	74
D	0	28	42	0	2	29	100
E	0	13	5	0	0	8	26
F	0	11	0	31	10	0	52
Totals	0	52	49	128	34	49	312

Total (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	1	0	0	1
B	0	0	290	711	192	183	1377
C	1	201	3	629	223	23	1079
D	2	701	589	5	64	457	1818
E	0	197	375	45	0	64	681
F	0	189	3	427	100	0	719
Totals	3	1287	1261	1819	578	727	5675

Junction 6 - A47 / A140 Roundabout



Notes

Arm	Link	Road Name
A	129	A47 Westbound (Off ramp)
B	-	Markshall Farm Road
C	127	A140 South
D	122	A47 Eastbound (Off ramp)
E	-	Unnamed Road
F	125	A140 North

Growth Factor	AM	PM
All Vehicles	1.0777	1.0794

Vehicles HGVs

Surveyed Flows (2021)

AM Peak Traffic
Tuesday 16th November 2021: 06:30 - 07:30 AM

From/To	A	B	C	D	E	F	Totals
A	1	5	243	0	3	84	336
B	4	0	5	56	0	21	86
C	221	8	0	257	4	245	735
D	1	16	191	0	3	134	345
E	1	0	2	0	0	0	3
F	109	17	237	111	3	0	477
Totals	337	46	678	424	13	484	1982

From/To	A	B	C	D	E	F	Totals
A	0	0	13	0	0	5	18
B	0	0	0	1	0	0	1
C	17	0	0	20	0	16	53
D	0	0	28	0	2	8	38
E	0	0	0	0	0	1	1
F	4	0	14	8	2	0	28
Totals	21	0	55	29	4	30	139

From/To	A	B	C	D	E	F	Totals
A	1	5	256	0	3	89	354
B	4	0	5	57	0	21	87
C	238	8	0	277	4	261	788
D	1	16	219	0	5	142	383
E	1	0	2	0	0	1	4
F	113	17	251	119	5	0	505
Totals	358	46	733	453	17	514	2121

From/To	A	B	C	D	E	F	Average
A	0.0%	0.0%	5.1%	0.0%	0.0%	5.6%	2%
B	0.0%	0.0%	0.0%	1.8%	0.0%	0.0%	0%
C	7.1%	0.0%	0.0%	7.2%	0.0%	6.1%	3%
D	0.0%	0.0%	12.8%	0.0%	40.0%	5.6%	10%
E	0.0%	0.0%	0.0%	0.0%	100.0%	17%	17%
F	3.5%	0.0%	5.6%	6.7%	40.0%	0.0%	9%
Average	0.0	0.0	0.0	0.0	0.1	0.2	7%

PM Peak Traffic
Tuesday 16th November 2021: 17:25 - 18:25 PM

From/To	A	B	C	D	E	F	Totals
A	2	2	210	0	2	110	326
B	4	1	7	46	0	30	88
C	259	19	0	216	2	291	787
D	3	40	255	0	2	217	517
E	6	0	19	0	0	10	35
F	172	27	455	220	1	0	875
Totals	446	89	946	482	7	658	2628

From/To	A	B	C	D	E	F	Totals
A	0	0	5	0	0	1	6
B	0	0	0	1	0	0	1
C	7	0	0	1	0	8	16
D	0	0	5	0	0	3	8
E	0	0	0	1	0	3	4
F	2	0	3	1	4	0	10
Totals	9	0	13	3	4	15	44

From/To	A	B	C	D	E	F	Totals
A	2	2	215	0	2	111	332
B	4	1	7	46	0	30	88
C	268	19	0	217	2	299	803
D	3	40	260	0	2	220	525
E	6	0	19	1	0	13	39
F	174	27	458	221	5	0	885
Totals	455	89	959	485	11	673	2672

From/To	A	B	C	D	E	F	Average
A	0.0%	0.0%	2.3%	0.0%	0.0%	0.9%	1%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	2.6%	0.0%	0.0%	0.5%	0.0%	2.7%	1%
D	0.0%	0.0%	1.9%	0.0%	0.0%	1.4%	1%
E	0.0%	0.0%	0.0%	100.0%	0.0%	23.1%	21%
F	1.1%	0.0%	0.7%	0.5%	80.0%	0.0%	14%
Average	0.0	0.0	0.0	0.2	0.1	0.0	6%

Forecast Flows (2025)

From/To	A	B	C	D	E	F	Totals
A	1	5	262	0	3	91	362
B	4	0	5	60	0	23	93
C	238	9	0	277	4	264	792
D	1	17	208	0	3	144	372
E	1	0	2	0	0	1	4
F	117	18	255	120	3	0	514
Totals	363	50	731	457	14	522	2136

From/To	A	B	C	D	E	F	Totals
A	0	0	14	0	0	5	19
B	0	0	0	1	0	0	1
C	18	0	0	22	0	17	57
D	0	0	30	0	2	9	41
E	0	0	0	0	0	1	1
F	4	0	15	9	2	0	30
Totals	23	0	59	31	4	32	150

From/To	A	B	C	D	E	F	Totals
A	1	5	276	0	3	96	382
B	4	0	5	61	0	23	94
C	256	9	0	299	4	281	849
D	1	17	236	0	5	153	413
E	1	0	2	0	0	1	4
F	122	18	271	128	5	0	544
Totals	386	50	790	488	18	554	2286

From/To	A	B	C	D	E	F	Average
A	0.0%	0.0%	5.1%	0.0%	0.0%	5.6%	0
B	0.0%	0.0%	0.0%	1.8%	0.0%	0.0%	0
C	7.1%	0.0%	0.0%	7.2%	0.0%	6.1%	0
D	0.0%	0.0%	12.8%	0.0%	40.0%	5.6%	0
E	0.0%	0.0%	0.0%	0.0%	100.0%	17%	0
F	3.5%	0.0%	5.6%	6.7%	40.0%	0.0%	0
Average	0.0	0.0	0.0	0.0	0.1	0.2	0

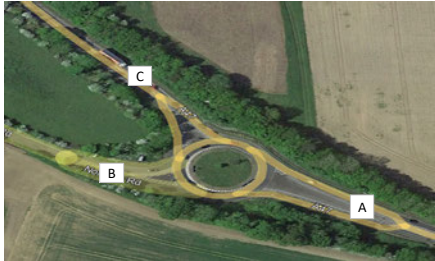
From/To	A	B	C	D	E	F	Totals
A	2	2	227	0	2	119	352
B	4	1	8	50	0	32	95
C	280	21	0	233	2	314	849
D	3	43	275	0	2	234	557
E	6	0	21	0	0	11	38
F	186	29	491	237	1	0	944
Totals	481	96	1021	520	8	710	2837

From/To	A	B	C	D	E	F	Totals
A	0	0	5	0	0	1	6
B	0	0	0	0	0	0	0
C	8	0	0	1	0	9	17
D	0	0	5	0	0	3	9
E	0	0	0	1	0	3	4
F	2	0	3	1	4	0	11
Totals	10	0	14	3	4	16	47

From/To	A	B	C	D	E	F	Totals
A	2	2	232	0	2	120	358
B	4	1	8	50	0	32	95
C	287	21	0	234	2	323	867
D	3	43	281	0	2	237	567
E	6	0	21	1	0	14	42
F	188	29	494	239	5	0	955
Totals	491	96	1035	524	12	726	2884

From/To	A	B	C	D	E	F	Average
A	0.0%	0.0%	2.3%	0.0%	0.0%	0.9%	0
B	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
C	2.6%	0.0%	0.0%	0.5%	0.0%	2.7%	0
D	0.0%	0.0%	1.9%	0.0%	0.0%	1.4%	0
E	0.0%	0.0%	0.0%	100.0%	0.0%	23.0%	0
F	1.1%	0.0%	0.7%	0.5%	80.0%	0.0%	0
Average	0.0	0.0	0.0	0.2	0.1	0.0	0

Junction 7 - A47 / Norwich Road Roundabout



Notes

Arm	Link	Road Name
A	89	A47 East
B	-	Norwich Road
C	89	A47 West

Growth Factor	AM Peak	PM Peak
All Vehicles	1.0777	1.0794

Vehicles HGVs

Surveyed Flows (2021)

AM Peak Traffic
Tuesday 16th November 2021: 06:30 - 07:30 AM

Vehicles

From/To	A	B	C	Totals
A	0	81	704	785
B	130	0	9	139
C	875	5	2	882
Totals	1005	86	715	1806

HGVs

From/To	A	B	C	Totals
A	0	3	70	73
B	5	5	0	10
C	120	2	0	122
Totals	125	10	70	205

Total

From/To	A	B	C	Totals
A	0	84	774	858
B	135	5	9	149
C	995	7	2	1004
Totals	1130	96	785	2011

%HGV

From/To	A	B	C	Average
A	0.0%	3.6%	9.0%	4%
B	3.7%	100.0%	0.0%	35%
C	12.1%	28.6%	0.0%	14%
Average	5%	44%	3%	17%

PM Peak Traffic
Tuesday 16th November 2021: 17:25 - 18:25 PM

Vehicles

From/To	A	B	C	Totals
A	3	116	925	1044
B	96	0	9	105
C	770	10	2	782
Totals	869	126	936	1931

HGVs

From/To	A	B	C	Totals
A	0	1	37	38
B	2	2	0	4
C	37	1	0	38
Totals	39	4	37	80

Total

From/To	A	B	C	Totals
A	3	117	962	1082
B	98	2	9	109
C	807	11	2	820
Totals	908	130	973	2011

%HGV

From/To	A	B	C	Average
A	0.0%	0.9%	3.8%	2%
B	2.0%	100.0%	0.0%	34%
C	4.6%	9.1%	0.0%	5%
Average	2%	37%	1%	13%

Forecast Flows (2025)

Growth Factored Vehicles

From/To	A	B	C	Totals
A	0	87	759	846
B	140	0	10	150
C	943	5	2	951
Totals	1083	93	771	1946

Growth Factored HGVs

From/To	A	B	C	Totals
A	0	3	75	79
B	5	5	0	11
C	129	2	0	131
Totals	135	11	75	221

Growth Factored Total

From/To	A	B	C	Totals
A	0	91	834	925
B	145	5	10	161
C	1072	8	2	1082
Totals	1218	103	846	2167

%HGV

From/To	A	B	C	Average
A	0.0%	3.6%	9.0%	4%
B	3.7%	100.0%	0.0%	35%
C	12.1%	28.6%	0.0%	14%
Average	5%	44%	3%	17%

Growth Factored Vehicles

From/To	A	B	C	Totals
A	3	125	998	1127
B	104	0	10	113
C	831	11	2	844
Totals	938	136	1010	2084

Growth Factored HGVs

From/To	A	B	C	Totals
A	0	1	40	41
B	2	2	0	4
C	40	1	0	41
Totals	42	4	40	86

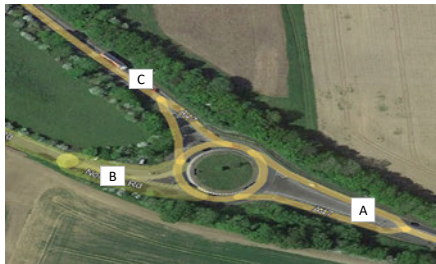
Growth Factored Total

From/To	A	B	C	Totals
A	3	126	1038	1168
B	106	2	10	118
C	871	12	2	885
Totals	980	140	1050	2171

%HGV

From/To	A	B	C	Average
A	0.0%	0.9%	3.8%	2%
B	2.0%	100.0%	0.0%	34%
C	4.6%	9.1%	0.0%	5%
Average	2%	37%	1%	13%

Junction 7 - A47 / Norwich Road Roundabout



Notes

Arm	Link	Road Name
A	89	A47 East
B	-	Norwich Road
C	89	A47 West

Growth Factor	AM Peak	PM Peak
All Vehicles	1.0777	1.0794

Vehicles HGVs

Construction Flows (SEP or DEP in Isolation)

AM Peak Traffic

Vehicles				
From/To	A	B	C	Totals
A	0	0	17	17
B	0	0	0	0
C	105	0	0	105
Totals	105	0	17	122

HGVs				
From/To	A	B	C	Totals
A	0	0	14	14
B	0	0	0	0
C	14	0	0	14
Totals	14	0	14	29

Total				
From/To	A	B	C	Totals
A	0	0	32	32
B	0	0	0	0
C	120	0	0	120
Totals	120	0	32	151

%HGV				
From/To	A	B	C	Average
A	0.0%	0.0%	45.5%	15%
B	0.0%	0.0%	0.0%	0%
C	12.0%	0.0%	0.0%	4%
Average	4%	0%	15%	6%

PM Peak Traffic

Vehicles				
From/To	A	B	C	Totals
A	0	0	105	105
B	0	0	0	0
C	17	0	0	17
Totals	17	0	105	122

HGVs				
From/To	A	B	C	Totals
A	0	0	14	14
B	0	0	0	0
C	14	0	0	14
Totals	14	0	14	29

Total				
From/To	A	B	C	Totals
A	0	0	120	120
B	0	0	0	0
C	32	0	0	32
Totals	32	0	120	151

%HGV				
From/To	A	B	C	Average
A	0.0%	0.0%	12.0%	4%
B	0.0%	0.0%	0.0%	0%
C	45.5%	0.0%	0.0%	15%
Average	15%	0%	4%	6%

Forecast Flows + Construction Flows (SEP or DEP in Isolation)

AM Peak Traffic

Vehicles				
From/To	A	B	C	Totals
A	0	87	776	863
B	140	0	10	150
C	1048	5	2	1056
Totals	1188	93	788	2069

HGVs				
From/To	A	B	C	Totals
A	0	3	90	93
B	5	5	0	11
C	144	2	0	146
Totals	149	11	90	250

Total				
From/To	A	B	C	Totals
A	0	91	866	956
B	145	5	10	161
C	1192	8	2	1202
Totals	1337	103	878	2319

%HGV				
From/To	A	B	C	Average
A	0.0%	3.6%	10.4%	5%
B	3.7%	100.0%	0.0%	35%
C	12.1%	28.6%	0.0%	14%
Average	5%	44%	3%	18%

PM Peak Traffic

Vehicles				
From/To	A	B	C	Totals
A	3	125	1104	1232
B	104	0	10	113
C	848	11	2	861
Totals	955	136	1116	2207

HGVs				
From/To	A	B	C	Totals
A	0	1	54	55
B	2	2	0	4
C	54	1	0	55
Totals	56	4	54	115

Total				
From/To	A	B	C	Totals
A	3	126	1158	1288
B	106	2	10	118
C	903	12	2	917
Totals	1012	140	1170	2322

%HGV				
From/To	A	B	C	Average
A	0.0%	0.9%	4.7%	2%
B	2.0%	100.0%	0.0%	34%
C	6.0%	9.1%	0.0%	5%
Average	3%	37%	2%	14%

Junction 8 - A47 / A1074 Roundabout



Notes

Arm	Link	Road Name
A	96	A1074
B	97	A47 South
C	-	Unnamed Road
D	95	A47 North
E	-	William Frost Way

Growth Factor	AM	PM
All Vehicles	1.0777	1.0794

Vehicles HGVs

Surveyed Flows (2021)

AM Peak Traffic
Tuesday 16th November 2021: 06:30 - 07:30 AM

From/To	A	B	C	D	E	Totals
A	0	426	308	0	175	909
B	0	0	0	0	0	0
C	207	41	0	0	149	397
D	188	0	20	0	77	285
E	199	244	90	0	1	534
Totals	594	711	418	0	402	2125

From/To	A	B	C	D	E	Totals
A	0	9	6	0	14	29
B	0	0	0	0	0	0
C	16	11	0	0	30	57
D	21	0	3	0	5	29
E	26	26	13	0	2	67
Totals	63	46	22	0	51	182

From/To	A	B	C	D	E	Totals
A	0	435	314	0	189	938
B	0	0	0	0	0	0
C	223	52	0	0	179	454
D	209	0	23	0	82	314
E	225	270	103	0	3	601
Totals	657	757	440	0	453	2307

From/To	A	B	C	D	E	Average
A	0.0%	2.1%	1.9%	0.0%	7.4%	2%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	7.2%	21.2%	0.0%	0.0%	16.8%	9%
D	10.0%	0.0%	13.0%	0.0%	6.1%	6%
E	11.6%	9.6%	12.6%	0.0%	66.7%	20%
Average	0.1	0.1	0.1	0.0	0.2	7%

PM Peak Traffic
Tuesday 16th November 2021: 17:25 - 18:25 PM

From/To	A	B	C	D	E	Totals
A	2	258	349	0	556	1165
B	0	0	0	0	0	0
C	401	123	0	0	504	1028
D	166	2	4	0	178	350
E	478	320	205	0	19	1022
Totals	1047	703	558	0	1257	3565

From/To	A	B	C	D	E	Totals
A	0	2	6	0	8	16
B	0	0	0	0	0	0
C	8	10	0	0	2	20
D	3	0	1	0	5	9
E	2	2	1	0	0	5
Totals	13	14	8	0	15	50

From/To	A	B	C	D	E	Totals
A	2	260	355	0	564	1181
B	0	0	0	0	0	0
C	409	133	0	0	506	1048
D	169	2	5	0	183	359
E	480	322	206	0	19	1027
Totals	1060	717	566	0	1272	3615

From/To	A	B	C	D	E	Average
A	0.0%	0.8%	1.7%	0.0%	1.4%	1%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	2.0%	7.5%	0.0%	0.0%	0.4%	2%
D	1.8%	0.0%	20.0%	0.0%	2.7%	5%
E	0.4%	0.6%	0.5%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	0.0	2%

Forecast Flows (2025)

From/To	A	B	C	D	E	Totals
A	0	459	332	0	189	980
B	0	0	0	0	0	0
C	223	44	0	0	161	428
D	203	0	22	0	83	307
E	214	263	97	0	1	575
Totals	640	766	450	0	433	2290

From/To	A	B	C	D	E	Totals
A	0	10	6	0	15	31
B	0	0	0	0	0	0
C	17	12	0	0	32	61
D	23	0	3	0	5	31
E	28	28	14	0	2	72
Totals	68	50	24	0	55	196

From/To	A	B	C	D	E	Totals
A	0	469	338	0	204	1011
B	0	0	0	0	0	0
C	240	56	0	0	193	489
D	225	0	25	0	88	338
E	242	291	111	0	3	648
Totals	708	816	474	0	488	2486

From/To	A	B	C	D	E	Average
A	0.0%	2.1%	1.9%	0.0%	7.4%	2%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	7.2%	21.2%	0.0%	0.0%	16.8%	9%
D	10.0%	0.0%	13.0%	0.0%	6.1%	6%
E	11.6%	9.6%	12.6%	0.0%	66.7%	20%
Average	0.1	0.1	0.1	0.0	0.2	7%

From/To	A	B	C	D	E	Totals
A	2	278	377	0	600	1258
B	0	0	0	0	0	0
C	433	133	0	0	544	1110
D	179	2	4	0	192	378
E	516	345	221	0	21	1103
Totals	1130	759	602	0	1357	3848

From/To	A	B	C	D	E	Totals
A	0	2	6	0	9	17
B	0	0	0	0	0	0
C	9	11	0	0	2	22
D	3	0	1	0	5	10
E	2	2	1	0	0	5
Totals	14	15	9	0	16	54

From/To	A	B	C	D	E	Totals
A	2	281	383	0	609	1275
B	0	0	0	0	0	0
C	441	144	0	0	546	1131
D	182	2	5	0	198	387
E	518	348	222	0	21	1109
Totals	1144	774	611	0	1373	3902

From/To	A	B	C	D	E	Average
A	0.0%	0.8%	1.7%	0.0%	1.4%	1%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	2.0%	7.5%	0.0%	0.0%	0.4%	2%
D	1.8%	0.0%	20.0%	0.0%	2.7%	5%
E	0.4%	0.6%	0.5%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	0.0	2%

Junction 8 - A47 / A1074 Roundabout



Notes

Arm	Link	Road Name
A	96	A1074
B	97	A47 South
C	-	Unnamed Road
D	95	A47 North
E	-	William Frost Way

Growth Factor	AM	PM
All Vehicles	1.0777	1.0794

Vehicles HGVs

Construction Flows (SEP or DEP in Isolation)

AM Peak Traffic

From/To	A	B	C	D	E	Totals
A	0	10	20	0	0	30
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	0	0	0	0	0	0
Totals	0	10	20	0	0	30

PM Peak Traffic

From/To	A	B	C	D	E	Totals
A	0	0	0	0	0	0
B	0	0	0	0	0	0
C	10	0	0	0	0	10
D	20	0	0	0	0	20
E	0	0	0	0	0	0
Totals	30	0	0	0	0	30

From/To	A	B	C	D	E	Totals
A	0	0	0	0	0	0
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	0	0	0	0	0	0
Totals	0	0	0	0	0	0

From/To	A	B	C	D	E	Totals
A	0	0	0	0	0	0
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	0	0	0	0	0	0
Totals	0	0	0	0	0	0

From/To	A	B	C	D	E	Totals
A	0	10	20	0	0	30
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	0	0	0	0	0	0
Totals	0	10	20	0	0	30

From/To	A	B	C	D	E	Totals
A	0	0	0	0	0	0
B	0	0	0	0	0	0
C	10	0	0	0	0	10
D	20	0	0	0	0	20
E	0	0	0	0	0	0
Totals	30	0	0	0	0	30

From/To	A	B	C	D	E	Average
A	0.0%	0.0%	0.0%	0.0%	0.0%	0%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	0.0%	0.0%	0.0%	0.0%	0.0%	0%
D	0.0%	0.0%	0.0%	0.0%	0.0%	0%
E	0.0%	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	0.0	0%

From/To	A	B	C	D	E	Average
A	0.0%	0.0%	0.0%	0.0%	0.0%	0%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	0.0%	0.0%	0.0%	0.0%	0.0%	0%
D	0.0%	0.0%	0.0%	0.0%	0.0%	0%
E	0.0%	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	0.0	0%

Forecast Flows + Construction Flows (SEP or DEP in Isolation)

AM Peak Traffic

From/To	A	B	C	D	E	Totals
A	0	469	352	0	189	1010
B	0	0	0	0	0	0
C	223	44	0	0	161	428
D	203	0	22	0	83	307
E	214	263	97	0	1	575
Totals	640	777	470	0	433	2320

PM Peak Traffic

From/To	A	B	C	D	E	Totals
A	2	278	377	0	600	1258
B	0	0	0	0	0	0
C	443	133	0	0	544	1120
D	199	2	4	0	192	398
E	516	345	221	0	21	1103
Totals	1160	759	602	0	1357	3878

From/To	A	B	C	D	E	Totals
A	0	10	6	0	15	31
B	0	0	0	0	0	0
C	17	12	0	0	32	61
D	23	0	3	0	5	31
E	28	28	14	0	2	72
Totals	68	50	24	0	55	196

From/To	A	B	C	D	E	Totals
A	0	2	6	0	9	17
B	0	0	0	0	0	0
C	9	11	0	0	2	22
D	3	0	1	0	5	10
E	2	2	1	0	0	5
Totals	14	15	9	0	16	54

From/To	A	B	C	D	E	Totals
A	0	479	358	0	204	1041
B	0	0	0	0	0	0
C	240	56	0	0	193	489
D	225	0	25	0	88	338
E	242	291	111	0	3	648
Totals	708	826	494	0	488	2517

From/To	A	B	C	D	E	Totals
A	2	281	383	0	609	1275
B	0	0	0	0	0	0
C	452	144	0	0	546	1141
D	202	2	5	0	198	408
E	518	348	222	0	21	1109
Totals	1174	774	611	0	1373	3932

From/To	A	B	C	D	E	Average
A	0.0%	2.0%	1.8%	0.0%	7.4%	2%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	7.2%	21.2%	0.0%	0.0%	16.8%	9%
D	10.0%	0.0%	13.0%	0.0%	6.1%	6%
E	11.6%	9.6%	12.6%	0.0%	66.7%	20%
Average	0.1	0.1	0.1	0.0	0.2	7%

From/To	A	B	C	D	E	Average
A	0.0%	0.8%	1.7%	0.0%	1.4%	1%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	1.9%	7.5%	0.0%	0.0%	0.4%	2%
D	1.6%	0.0%	20.0%	0.0%	2.7%	5%
E	0.4%	0.6%	0.5%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	0.0	2%

Junction 9 - A47 / Long Lane Roundabout



Notes

Arm	Link	Road Name
A	-	Unnamed Road
B	97	A47 South
C	-	Long Lane
D	95	A47 North
E	-	Unnamed Road

Growth Factor	AM	PM
All Vehicles	1.0777	1.0794

Vehicles HGVs

Surveyed Flows (2021)

AM Peak Traffic
Tuesday 16th November 2021: 06:30 - 07:30 AM

From/To	A	B	C	D	E	Totals
A	1	0	80	48	289	418
B	295	0	35	31	10	371
C	10	0	0	2	3	15
D	91	0	8	0	2	101
E	0	0	0	0	0	0
Totals	397	0	123	81	304	905

From/To	A	B	C	D	E	Totals
A	0	0	3	0	19	22
B	42	0	3	6	0	51
C	7	0	0	0	0	7
D	8	1	0	0	1	10
E	0	0	0	0	0	0
Totals	57	1	6	6	20	90

From/To	A	B	C	D	E	Totals
A	1	0	83	48	308	440
B	337	0	38	37	10	422
C	17	0	0	2	3	22
D	99	1	8	0	3	111
E	0	0	0	0	0	0
Totals	454	1	129	0	324	995

From/To	A	B	C	D	E	Average
A	0.0%	0.0%	3.6%	0.0%	6.2%	2%
B	12.5%	0.0%	7.9%	16.2%	0.0%	7%
C	41.2%	0.0%	0.0%	0.0%	0.0%	8%
D	8.1%	100.0%	0.0%	0.0%	33.3%	28%
E	0.0%	0.0%	0.0%	0.0%	0.0%	0%
Average	0.1	0.2	0.0	0.0	0.1	9%

PM Peak Traffic
Tuesday 16th November 2021: 17:25 - 18:25 PM

From/To	A	B	C	D	E	Totals
A	0	0	38	124	396	558
B	664	0	8	64	13	749
C	174	0	0	15	38	227
D	190	0	4	0	9	203
E	0	0	0	0	0	0
Totals	1028	0	50	203	456	1737

From/To	A	B	C	D	E	Totals
A	0	0	2	1	5	8
B	6	0	9	3	1	19
C	11	0	0	0	1	12
D	3	0	0	0	1	4
E	0	0	0	0	0	0
Totals	20	0	11	4	8	43

From/To	A	B	C	D	E	Totals
A	0	0	40	125	401	566
B	670	0	17	67	14	768
C	185	0	0	15	39	239
D	193	0	4	0	10	207
E	0	0	0	0	0	0
Totals	1048	0	61	0	464	1790

From/To	A	B	C	D	E	Average
A	0.0%	0.0%	5.0%	0.8%	1.2%	1%
B	0.9%	0.0%	52.9%	4.5%	7.1%	13%
C	5.9%	0.0%	0.0%	0.0%	2.6%	2%
D	1.6%	0.0%	0.0%	0.0%	10.0%	2%
E	0.0%	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.1	0.0	0.0	4%

Forecast Flows (2025)

From/To	A	B	C	D	E	Totals
A	1	0	86	52	311	450
B	318	0	38	33	11	400
C	11	0	0	2	3	16
D	98	0	9	0	2	109
E	0	0	0	0	0	0
Totals	428	0	133	0	328	975

From/To	A	B	C	D	E	Totals
A	0	0	3	0	20	24
B	45	0	3	6	0	55
C	8	0	0	0	0	8
D	9	1	0	0	1	11
E	0	0	0	0	0	0
Totals	61	1	6	0	22	97

From/To	A	B	C	D	E	Totals
A	1	0	89	52	332	474
B	363	0	41	40	11	455
C	18	0	0	2	3	24
D	107	1	9	0	3	120
E	0	0	0	0	0	0
Totals	489	1	139	0	349	1072

From/To	A	B	C	D	E	Average
A	0.0%	0.0%	3.6%	0.0%	6.2%	2%
B	12.5%	0.0%	7.9%	16.2%	0.0%	7%
C	41.2%	0.0%	0.0%	0.0%	0.0%	8%
D	8.1%	100.0%	0.0%	0.0%	33.3%	28%
E	0.0%	0.0%	0.0%	0.0%	0.0%	0%
Average	0.1	0.2	0.0	0.0	0.1	9%

From/To	A	B	C	D	E	Totals
A	0	0	41	134	427	602
B	717	0	9	69	14	809
C	188	0	0	16	41	245
D	205	0	4	0	10	219
E	0	0	0	0	0	0
Totals	1110	0	54	0	492	1875

From/To	A	B	C	D	E	Totals
A	0	0	2	1	5	9
B	6	0	10	3	1	20
C	12	0	0	0	1	13
D	3	0	0	0	1	4
E	0	0	0	0	0	0
Totals	22	0	12	0	9	46

From/To	A	B	C	D	E	Totals
A	0	0	43	135	433	611
B	723	0	18	72	15	828
C	200	0	0	16	42	258
D	208	0	4	0	11	223
E	0	0	0	0	0	0
Totals	1131	0	66	0	501	1921

From/To	A	B	C	D	E	Average
A	0.0%	0.0%	5.0%	0.8%	1.2%	1%
B	0.9%	0.0%	52.9%	4.5%	7.1%	13%
C	5.9%	0.0%	0.0%	0.0%	2.6%	2%
D	1.6%	0.0%	0.0%	0.0%	10.0%	2%
E	0.0%	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.1	0.0	0.0	4%

Junction 9 - A47 / Long Lane Roundabout



Notes

Arm	Link	Road Name
A	-	Unnamed Road
B	97	A47 South
C	-	Long Lane
D	95	A47 North
E	-	Unnamed Road

Growth Factor	AM	PM
All Vehicles	1.0777	1.0794

Vehicles HGVs

Construction Flows (SEP or DEP in Isolation)

AM Peak Traffic

From/To	A	B	C	D	E	Totals
A	0	0	0	0	20	20
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	0	0	0	0	0	0
Totals	0	0	0	0	20	20

PM Peak Traffic

From/To	A	B	C	D	E	Totals
A	0	0	0	0	0	0
B	10	0	0	0	0	10
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	0	0	0	0	0	0
Totals	10	0	0	0	0	10

From/To	A	B	C	D	E	Totals
A	0	0	0	0	0	0
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	0	0	0	0	0	0
Totals	0	0	0	0	0	0

From/To	A	B	C	D	E	Totals
A	0	0	0	0	0	0
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	0	0	0	0	0	0
Totals	0	0	0	0	0	0

From/To	A	B	C	D	E	Totals
A	0	0	0	0	20	20
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	0	0	0	0	0	0
Totals	0	0	0	0	20	20

From/To	A	B	C	D	E	Totals
A	0	0	0	0	0	0
B	10	0	0	0	0	10
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	0	0	0	0	0	0
Totals	10	0	0	0	0	10

From/To	A	B	C	D	E	Average
A	0.0%	0.0%	0.0%	0.0%	0.0%	0%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	0.0%	0.0%	0.0%	0.0%	0.0%	0%
D	0.0%	0.0%	0.0%	0.0%	0.0%	0%
E	0.0%	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	0.0	0%

From/To	A	B	C	D	E	Average
A	0.0%	0.0%	0.0%	0.0%	0.0%	0%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	0.0%	0.0%	0.0%	0.0%	0.0%	0%
D	0.0%	0.0%	0.0%	0.0%	0.0%	0%
E	0.0%	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	0.0	0%

Forecast Flows + Construction Flows (SEP or DEP in Isolation)

AM Peak Traffic

From/To	A	B	C	D	E	Totals
A	1	0	86	52	331	470
B	318	0	38	33	11	400
C	11	0	0	2	3	16
D	88	0	9	0	2	109
E	0	0	0	0	0	0
Totals	428	0	133	87	348	995

PM Peak Traffic

From/To	A	B	C	D	E	Totals
A	0	0	41	134	427	602
B	727	0	9	69	14	819
C	188	0	0	16	41	245
D	205	0	4	0	10	219
E	0	0	0	0	0	0
Totals	1120	0	54	219	492	1885

From/To	A	B	C	D	E	Totals
A	0	0	3	0	20	24
B	45	0	3	6	0	55
C	8	0	0	0	0	8
D	9	1	0	0	1	11
E	0	0	0	0	0	0
Totals	61	1	6	6	22	97

From/To	A	B	C	D	E	Totals
A	0	0	2	1	5	9
B	6	0	10	3	1	20
C	12	0	0	0	1	13
D	3	0	0	0	1	4
E	0	0	0	0	0	0
Totals	22	0	12	4	9	46

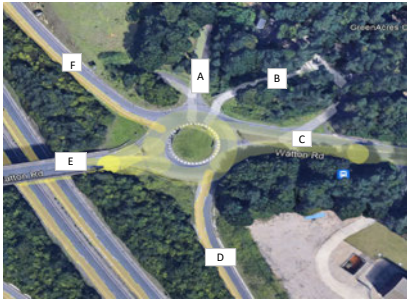
From/To	A	B	C	D	E	Totals
A	1	0	89	52	352	494
B	363	0	41	40	11	455
C	18	0	0	2	3	24
D	107	1	9	0	3	120
E	0	0	0	0	0	0
Totals	489	1	139	94	369	1092

From/To	A	B	C	D	E	Totals
A	0	0	43	135	433	611
B	734	0	18	72	15	839
C	200	0	0	16	42	258
D	208	0	4	0	11	223
E	0	0	0	0	0	0
Totals	1141	0	66	223	501	1932

From/To	A	B	C	D	E	Average
A	0.0%	0.0%	3.6%	0.0%	5.8%	2%
B	12.5%	0.0%	7.9%	16.2%	0.0%	7%
C	41.2%	0.0%	0.0%	0.0%	0.0%	8%
D	8.1%	100.0%	0.0%	0.0%	33.3%	28%
E	0.0%	0.0%	0.0%	0.0%	0.0%	0%
Average	0.1	0.2	0.0	0.0	0.1	9%

From/To	A	B	C	D	E	Average
A	0.0%	0.0%	5.0%	0.8%	1.2%	1%
B	0.9%	0.0%	52.9%	4.5%	7.1%	13%
C	5.9%	0.0%	0.0%	0.0%	2.6%	2%
D	1.6%	0.0%	0.0%	0.0%	10.0%	2%
E	0.0%	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.1	0.0	0.0	4%

Junction 10 - A47 / B1108 Eastern Roundabout



Notes

Arm	Link	Road Name
A	-	Unnamed Road
B	-	Green Access
C	-	B1108 East
D	105	A47 South
E	-	B1108 West
F	97	A47 North

Growth Factor	AM	PM
All Vehicles	1.0777	1.0794

Vehicles HGVs

Construction Flows (SEP or DEP in Isolation)

AM Peak Traffic

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0
C	0	0	0	0	0	0	0
D	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
F	0	0	0	0	5	0	5
Totals	0	0	0	0	5	0	5

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0
C	0	0	0	0	0	0	0
D	0	0	0	0	0	0	0
E	0	0	0	3	0	0	3
F	0	0	0	0	2	0	2
Totals	0	0	0	3	2	0	5

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0
C	0	0	0	0	0	0	0
D	0	0	0	0	0	0	0
E	0	0	0	3	0	0	3
F	0	0	0	0	7	0	7
Totals	0	0	0	3	7	0	10

From/To	A	B	C	D	E	F	Average
A	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0%
D	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0%
E	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	17%
F	0.0%	0.0%	0.0%	0.0%	24.3%	0.0%	4%
Average	0.0	0.0	0.0	0.2	0.0	0.0	3%

PM Peak Traffic

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0
C	0	0	0	0	0	0	0
D	0	0	0	0	0	0	0
E	0	0	0	57	0	0	57
F	0	0	0	0	3	0	3
Totals	0	0	0	57	3	0	60

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0
C	0	0	0	0	0	0	0
D	0	0	0	0	3	0	3
E	0	0	0	0	0	0	0
F	0	0	0	0	0	0	0
Totals	0	0	0	0	3	0	3

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0
C	0	0	0	0	0	0	0
D	0	0	0	0	3	0	3
E	0	0	0	57	0	0	57
F	0	0	0	0	0	0	0
Totals	0	0	0	57	3	0	60

From/To	A	B	C	D	E	F	Average
A	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0%
D	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	17%
E	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0%
F	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	0.2	0.0	3%

Forecast Flows + Construction Flows (SEP or DEP in Isolation)

AM Peak Traffic

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0
C	0	0	1	152	224	0	377
D	0	0	0	0	0	0	0
E	0	0	315	106	1	0	421
F	0	0	328	0	65	0	393
Totals	0	0	643	258	291	0	1192

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0
C	0	0	0	0	14	0	14
D	0	0	0	0	0	0	0
E	0	0	10	8	0	0	18
F	0	0	14	0	2	0	16
Totals	0	0	24	8	16	0	48

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0
C	0	0	1	152	238	0	391
D	0	0	0	0	0	0	0
E	0	0	324	114	1	0	439
F	0	0	342	0	67	0	409
Totals	0	0	667	266	306	0	1239

From/To	A	B	C	D	E	F	Average
A	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	0.0%	0.0%	0.0%	0.0%	5.9%	0.0%	1%
D	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0%
E	0.0%	0.0%	3.0%	7.3%	0.0%	0.0%	2%
F	0.0%	0.0%	4.1%	0.0%	2.4%	0.0%	1%
Average	0.0	0.0	0.0	0.0	0.0	0.0	1%

PM Peak Traffic

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0
C	0	0	1	276	475	0	752
D	0	0	0	0	0	0	0
E	0	0	405	219	1	0	625
F	0	0	168	0	92	0	260
Totals	0	0	594	495	568	0	1657

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0
C	0	0	0	0	11	0	11
D	0	0	0	0	3	0	3
E	0	0	2	2	0	0	4
F	0	0	11	0	0	0	11
Totals	0	0	13	2	14	0	29

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0
C	0	0	1	276	486	0	763
D	0	0	0	0	3	0	3
E	0	0	407	221	1	0	629
F	0	0	199	0	92	0	290
Totals	0	0	607	497	582	0	1686

From/To	A	B	C	D	E	F	Average
A	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	0.0%	0.0%	0.0%	0.0%	2.2%	0.0%	0%
D	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	17%
E	0.0%	0.0%	0.5%	1.0%	0.0%	0.0%	0%
F	0.0%	0.0%	5.4%	0.0%	0.0%	0.0%	1%
Average	0.0	0.0	0.0	0.0	0.2	0.0	3%

Junction 11 - A47 / B1108 Western Roundabout



Notes		
Arm	Link	Road Name
A	-	B1108 East
B	105	A47 South
C	98	B1108 West
D	97	A47 North

Growth Factor	AM	PM
All Vehicles	1.0777	1.0794

Vehicles HGVs

Surveyed Flows (2021)

AM Peak Traffic
Tuesday 16th November 2021: 06:30 - 07:30 AM

Vehicles					
From/To	A	B	C	D	Totals
A	0	0	160	105	265
B	149	0	95	5	249
C	242	0	0	51	293
D	0	0	0	0	0
Totals	391	0	255	161	807

HGVs					
From/To	A	B	C	D	Totals
A	0	0	9	4	13
B	7	0	3	0	10
C	7	0	0	0	7
D	0	0	0	0	0
Totals	14	0	12	4	30

Total					
From/To	A	B	C	D	Totals
A	0	0	169	109	278
B	156	0	98	5	259
C	249	0	0	51	300
D	0	0	0	0	0
Totals	405	0	267	0	672

%HGVS					
From/To	A	B	C	D	Average
A	0.0%	0.0%	5.3%	3.7%	2%
B	4.5%	0.0%	3.1%	0.0%	2%
C	2.8%	0.0%	0.0%	0.0%	1%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	1%

PM Peak Traffic
Tuesday 16th November 2021: 17:25 - 18:25 PM

Vehicles					
From/To	A	B	C	D	Totals
A	0	0	278	248	526
B	234	0	234	3	471
C	292	0	2	33	327
D	0	0	0	1	1
Totals	526	0	514	285	1325

HGVs					
From/To	A	B	C	D	Totals
A	0	0	3	7	10
B	3	0	1	0	4
C	1	0	0	1	2
D	0	0	0	0	0
Totals	4	0	4	8	16

Totals					
From/To	A	B	C	D	Totals
A	0	0	281	255	536
B	237	0	235	3	475
C	293	0	2	34	329
D	0	0	0	1	1
Totals	530	0	518	0	1048

%HGVS					
From/To	A	B	C	D	Average
A	0.0%	0.0%	1.1%	2.7%	1%
B	1.3%	0.0%	0.4%	0.0%	0%
C	0.3%	0.0%	0.0%	2.9%	1%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	1%

Forecast Flows (2025)

Growth Factored Vehicles					
From/To	A	B	C	D	Totals
A	0	0	172	113	286
B	161	0	102	5	268
C	261	0	0	55	316
D	0	0	0	0	0
Totals	421	0	275	0	696

Growth Factored HGVs					
From/To	A	B	C	D	Totals
A	0	0	10	4	14
B	8	0	3	0	11
C	8	0	0	0	8
D	0	0	0	0	0
Totals	15	0	13	0	28

Growth Factored Total					
From/To	A	B	C	D	Totals
A	0	0	182	117	300
B	168	0	106	5	279
C	268	0	0	55	323
D	0	0	0	0	0
Totals	436	0	288	0	724

%HGVS					
From/To	A	B	C	D	Average
A	0.0%	0.0%	5.3%	3.7%	2%
B	4.5%	0.0%	3.1%	0.0%	2%
C	2.8%	0.0%	0.0%	0.0%	1%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	1%

Growth Factored Vehicles					
From/To	A	B	C	D	Totals
A	0	0	300	268	568
B	253	0	253	3	508
C	315	0	2	36	353
D	0	0	0	1	1
Totals	568	0	555	0	1123

Growth Factored HGVs					
From/To	A	B	C	D	Totals
A	0	0	3	8	11
B	3	0	1	0	4
C	1	0	0	1	2
D	0	0	0	0	0
Totals	4	0	4	0	17

Growth Factored Total					
From/To	A	B	C	D	Totals
A	0	0	303	275	579
B	256	0	254	3	513
C	316	0	2	37	355
D	0	0	0	1	1
Totals	572	0	559	0	1131

%HGVS					
From/To	A	B	C	D	Average
A	0.0%	0.0%	1.1%	2.7%	1%
B	1.3%	0.0%	0.4%	0.0%	0%
C	0.3%	0.0%	0.0%	2.9%	1%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	1%

Junction 11 - A47 / B1108 Western Roundabout



Notes

Arm	Link	Road Name
A	-	B1108 East
B	105	A47 South
C	98	B1108 West
D	97	A47 North

Growth Factor	AM	PM
All Vehicles	1.0777	1.0794

Vehicles HGVs

Construction Flows (SEP or DEP in Isolation)

AM Peak Traffic

From/To	A	B	C	D	Totals
A	0	0	5	0	5
B	0	0	57	0	57
C	0	0	0	0	0
D	0	0	0	0	0
Totals	0	0	62	0	62

From/To	A	B	C	D	Totals
A	0	0	2	0	2
B	0	0	3	0	3
C	3	0	0	2	5
D	0	0	0	0	0
Totals	3	0	5	2	9

From/To	A	B	C	D	Totals
A	0	0	7	0	7
B	0	0	60	0	60
C	3	0	0	2	5
D	0	0	0	0	0
Totals	3	0	67	2	71

From/To	A	B	C	D	Average
A	0.0%	0.0%	24.3%	0.0%	6%
B	0.0%	0.0%	4.9%	0.0%	1%
C	100.0%	0.0%	0.0%	100.0%	50%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	0.3	0.0	0.1	0.3	14%

PM Peak Traffic

From/To	A	B	C	D	Totals
A	0	0	0	0	0
B	0	0	0	0	0
C	57	0	0	0	57
D	0	0	0	0	0
Totals	57	0	0	0	57

From/To	A	B	C	D	Totals
A	0	0	2	0	2
B	0	0	3	0	3
C	3	0	0	2	5
D	0	0	0	0	0
Totals	3	0	5	2	9

From/To	A	B	C	E	Totals
A	0	0	2	0	2
B	0	0	3	0	3
C	60	0	0	7	67
D	0	0	0	0	0
Totals	60	0	5	7	71

From/To	A	B	C	D	Average
A	0.0%	0.0%	100.0%	0.0%	25%
B	0.0%	0.0%	100.0%	0.0%	25%
C	4.9%	0.0%	0.0%	24.3%	7%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.5	0.1	14%

Forecast Flows + Construction Flows (SEP or DEP in Isolation)

AM Peak Traffic

From/To	A	B	C	E	Totals
A	0	0	177	113	291
B	161	0	159	5	325
C	261	0	0	55	316
D	0	0	0	0	0
Totals	421	0	337	174	932

From/To	A	B	C	E	Totals
A	0	0	11	4	16
B	8	0	6	0	14
C	11	0	0	2	12
D	0	0	0	0	0
Totals	18	0	18	6	41

From/To	A	B	C	E	Totals
A	0	0	189	117	306
B	168	0	166	5	339
C	271	0	0	57	328
D	0	0	0	0	0
Totals	439	0	354	179	973

From/To	A	B	C	D	Average
A	0.0%	0.0%	6.0%	3.7%	2%
B	4.5%	0.0%	3.7%	0.0%	2%
C	3.9%	0.0%	0.0%	2.9%	2%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	2%

PM Peak Traffic

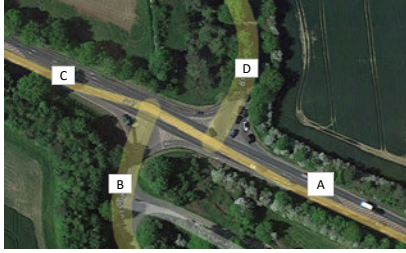
From/To	A	B	C	E	Totals
A	0	0	300	268	568
B	253	0	253	3	508
C	372	0	0	41	415
D	0	0	0	1	1
Totals	625	0	555	313	1492

From/To	A	B	C	E	Totals
A	0	0	5	8	12
B	3	0	4	0	7
C	4	0	0	3	7
D	0	0	0	0	0
Totals	7	0	9	10	26

From/To	A	B	C	E	Totals
A	0	0	305	275	580
B	256	0	257	3	516
C	376	0	2	43	422
D	0	0	0	1	1
Totals	632	0	564	323	1519

From/To	A	B	C	D	Average
A	0.0%	0.0%	1.6%	2.7%	1%
B	1.3%	0.0%	1.6%	0.0%	1%
C	1.1%	0.0%	0.0%	6.2%	2%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	1%

Junction 1 - A47 / Berry's Lane Junction



Notes

Arm	Link	Road Name
A	89	A47 east of B1535
B	-	Berrys Lane
C	86	A47 west of B1535
D	85	B1535

Growth Factor	AM Peak	PM Peak
All Vehicles	1.0777	1.0794

Surveyed Flows (2021)

AM Peak Traffic
Tuesday 16th November 2021: 06:30 - 07:30 AM

Vehicles

From/To	A	B	C	D	Totals
A	0	2	601	97	700
B	1	0	22	16	39
C	792	53	0	58	903
D	105	7	25	0	137
Totals	898	62	648	171	1779

HGVs

From/To	A	B	C	D	Totals
A	0	0	59	10	69
B	0	0	0	0	0
C	91	1	0	8	100
D	32	0	0	0	32
Totals	123	1	59	18	201

Total

From/To	A	B	C	D	Totals
A	0	2	660	107	769
B	1	0	22	16	39
C	883	54	0	66	1003
D	137	7	25	0	169
Totals	1021	63	707	189	1980

%HGV

From/To	A	B	C	D	Average
A	0.0%	0.0%	8.9%	9.3%	5%
B	0.0%	0.0%	0.0%	0.0%	0%
C	10.3%	1.9%	0.0%	12.1%	6%
D	23.4%	0.0%	0.0%	0.0%	6%
Average	8%	0%	2%	5%	4%

PM Peak Traffic
Tuesday 16th November 2021: 17:25 - 18:25 PM

Vehicles

From/To	A	B	C	D	Totals
A	0	0	834	112	946
B	1	0	42	10	53
C	654	30	0	52	736
D	122	12	35	0	169
Totals	777	42	911	174	1904

HGVs

From/To	A	B	C	D	Totals
A	0	0	36	1	37
B	0	0	1	0	1
C	33	0	0	1	34
D	4	0	0	0	4
Totals	37	0	37	2	76

Total

From/To	A	B	C	D	Totals
A	0	0	870	113	983
B	1	0	43	10	54
C	687	30	0	53	770
D	126	12	35	0	173
Totals	814	42	948	176	1980

%HGV

From/To	A	B	C	D	Average
A	0.0%	0.0%	4.1%	0.9%	1%
B	0.0%	0.0%	2.3%	0.0%	1%
C	4.8%	0.0%	0.0%	1.9%	2%
D	3.2%	0.0%	0.0%	0.0%	1%
Average	2%	0%	2%	1%	1%

Forecast Flows (2025)

Growth Factored Vehicles

From/To	A	B	C	D	Totals
A	0	2	648	105	754
B	1	0	24	17	42
C	854	57	0	63	973
D	113	8	27	0	148
Totals	968	67	698	184	1917

Growth Factored HGVs

From/To	A	B	C	D	Totals
A	0	0	64	11	74
B	0	0	0	0	0
C	98	1	0	9	108
D	34	0	0	0	34
Totals	133	1	64	19	217

Growth Factored Total

From/To	A	B	C	D	Totals
A	0	2	711	115	829
B	1	0	24	17	42
C	952	58	0	71	1081
D	148	8	27	0	182
Totals	1100	68	762	204	2134

%HGV

From/To	A	B	C	D	Average
A	0.0%	0.0%	8.9%	9.3%	5%
B	0.0%	0.0%	0.0%	0.0%	0%
C	10.3%	1.9%	0.0%	12.1%	6%
D	23.4%	0.0%	0.0%	0.0%	6%
Average	8%	0%	2%	5%	4%

Growth Factored Vehicles

From/To	A	B	C	D	Totals
A	0	0	900	121	1021
B	1	0	45	11	57
C	706	32	0	56	794
D	132	13	38	0	182
Totals	839	45	983	188	2055

Growth Factored HGVs

From/To	A	B	C	D	Totals
A	0	0	39	1	40
B	0	0	1	0	1
C	36	0	0	1	37
D	4	0	0	0	4
Totals	40	0	40	2	82

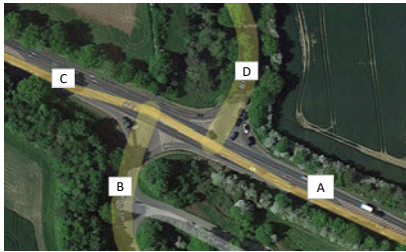
Growth Factored Total

From/To	A	B	C	D	Totals
A	0	0	939	122	1061
B	1	0	46	11	58
C	742	32	0	57	831
D	136	13	38	0	187
Totals	879	45	1023	190	2137

%HGV

From/To	A	B	C	D	Average
A	0.0%	0.0%	4.1%	0.9%	1%
B	0.0%	0.0%	2.3%	0.0%	1%
C	4.8%	0.0%	0.0%	1.9%	2%
D	3.2%	0.0%	0.0%	0.0%	1%
Average	2%	0%	2%	1%	1%

Junction 1 - A47 / Berry's Lane Junction



Notes

Arm	Link	Road Name
A	89	A47 east of B1535
B	-	Berrys Lane
C	86	A47 west of B1535
D	85	B1535

Growth Factor	AM Peak	PM Peak
All Vehicles	1.0777	1.0794

Construction Flows (SEP and DEP)

AM Peak Traffic

Vehicles					
From/To	A	B	C	D	Totals
A	0	0	0	52	52
B	0	0	0	0	0
C	100	0	0	49	149
D	31	0	0	0	31
Totals	131	0	0	101	232

PM Peak Traffic

Vehicles					
From/To	A	B	C	D	Totals
A	0	0	100	31	131
B	0	0	0	0	0
C	0	0	0	0	0
D	52	0	49	0	101
Totals	52	0	149	31	232

HGVs					
From/To	A	B	C	D	Totals
A	0	0	15	1	16
B	0	0	0	0	0
C	15	0	0	2	17
D	1	0	2	0	3
Totals	16	0	17	3	35

HGVs					
From/To	A	B	C	D	Totals
A	0	0	15	1	16
B	0	0	0	0	0
C	15	0	0	2	17
D	1	0	2	0	3
Totals	16	0	17	3	35

Total					
From/To	A	B	C	D	Totals
A	0	0	15	53	68
B	0	0	0	0	0
C	116	0	0	51	166
D	32	0	2	0	33
Totals	147	0	17	103	267

Total					
From/To	A	B	C	D	Totals
A	0	0	116	32	147
B	0	0	0	0	0
C	15	0	0	2	17
D	53	0	51	0	103
Totals	68	0	166	33	267

%HGV					
From/To	A	B	C	D	Average
A	0.0%	0.0%	100.0%	1.7%	25%
B	0.0%	0.0%	0.0%	0.0%	0%
C	13.1%	0.0%	0.0%	3.2%	4%
D	2.8%	0.0%	100.0%	0.0%	26%
Average	4%	0%	50%	1%	14%

%HGV					
From/To	A	B	C	D	Average
A	0.0%	0.0%	13.1%	2.8%	4%
B	0.0%	0.0%	0.0%	0.0%	0%
C	100.0%	0.0%	0.0%	100.0%	50%
D	1.7%	0.0%	3.2%	0.0%	1%
Average	25%	0%	4%	26%	14%

Forecast Flows + Construction Flows (SEP and DEP)

AM Peak Traffic

Vehicles					
From/To	A	B	C	D	Totals
A	0	2	648	156	806
B	1	0	24	17	42
C	954	57	0	112	1123
D	144	8	27	0	178
Totals	1099	67	698	285	2149

PM Peak Traffic

Vehicles					
From/To	A	B	C	D	Totals
A	0	0	1001	152	1152
B	1	0	45	11	57
C	706	32	0	56	794
D	183	13	87	0	283
Totals	890	45	1133	219	2287

HGVs					
From/To	A	B	C	D	Totals
A	0	0	79	12	90
B	0	0	0	0	0
C	113	1	0	10	125
D	35	0	2	0	37
Totals	149	1	80	22	252

HGVs					
From/To	A	B	C	D	Totals
A	0	0	54	2	56
B	0	0	1	0	1
C	51	0	0	3	53
D	5	0	2	0	7
Totals	56	0	57	5	117

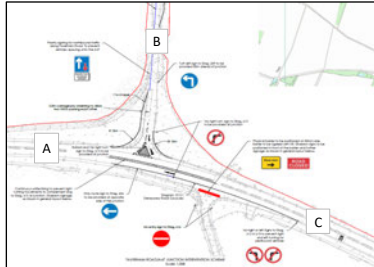
Total					
From/To	A	B	C	D	Totals
A	0	2	726	168	896
B	1	0	24	17	42
C	1067	58	0	122	1247
D	179	8	29	0	216
Totals	1248	68	779	307	2401

Total					
From/To	A	B	C	D	Totals
A	0	0	1055	154	1208
B	1	0	46	11	58
C	757	32	0	59	848
D	189	13	88	0	290
Totals	946	45	1190	223	2405

%HGV					
From/To	A	B	C	D	Average
A	0.0%	0.0%	10.8%	7.0%	4%
B	0.0%	0.0%	0.0%	0.0%	0%
C	10.6%	1.9%	0.0%	8.4%	5%
D	19.7%	0.0%	5.7%	0.0%	6%
Average	8%	0%	4%	4%	4%

%HGV					
From/To	A	B	C	D	Average
A	0.0%	0.0%	5.1%	1.3%	2%
B	0.0%	0.0%	2.3%	0.0%	1%
C	6.7%	0.0%	0.0%	4.6%	3%
D	2.8%	0.0%	1.9%	0.0%	1%
Average	2%	0%	2%	1%	2%

Junction 2a - A47 / Taverham Road Junction



Notes

Arm	Link	Road Name
A	94	A47 West of Taverham Road
B	-	Blind Lane
C	89	A47 East of Taverham Road
	90	Blind Lane (closed)

Growth Factor	AM Peak	PM Peak
All Vehicles	1.0777	1.0794

Surveyed Flows (2021)

AM Peak Traffic

Tuesday 16th November 2021: 06:30 - 07:30 AM

Vehicles

From/To	A	B	C	Totals
A	0	9	975	984
B	0	0	6	6
C	784	0	0	784
Totals	784	9	981	1774

HGVs

From/To	A	B	C	Totals
A	0	0	123	123
B	0	0	1	1
C	73	0	0	73
Totals	73	0	124	197

Total

From/To	A	B	C	Totals
A	0	9	1098	1107
B	0	0	7	7
C	857	0	0	857
Totals	857	9	1105	1971

%HGV

From/To	A	B	C	Average
A	0.0%	0.0%	11.2%	4%
B	0.0%	0.0%	14.3%	5%
C	8.5%	0.0%	0.0%	3%
Average	3%	0%	8%	4%

PM Peak Traffic

Tuesday 16th November 2021: 17:25 - 18:25 PM

Vehicles

From/To	A	B	C	Totals
A	0	20	857	877
B	0	0	8	8
C	1023	0	0	1023
Totals	1023	20	865	1908

HGVs

From/To	A	B	C	Totals
A	0	0	39	39
B	0	0	1	1
C	39	0	0	39
Totals	39	0	40	79

Total

From/To	A	B	C	Totals
A	0	20	896	916
B	0	0	9	9
C	1062	0	0	1062
Totals	1062	20	905	1987

%HGV

From/To	A	B	C	Average
A	0.0%	0.0%	4.4%	1%
B	0.0%	0.0%	11.1%	4%
C	3.7%	0.0%	0.0%	1%
Average	1%	0%	5%	2%

Forecast Flows (2025)

Growth Factored Vehicles

From/To	A	B	C	Totals
A	0	10	1051	1060
B	0	0	6	6
C	845	0	0	845
Totals	845	10	1057	1912

Growth Factored HGVs

From/To	A	B	C	Totals
A	0	0	133	133
B	0	0	1	1
C	79	0	0	79
Totals	79	0	134	212

Growth Factored Total

From/To	A	B	C	Totals
A	0	10	1183	1193
B	0	0	8	8
C	924	0	0	924
Totals	924	10	1191	2124

%HGV

From/To	A	B	C	Average
A	0.0%	0.0%	11.2%	4%
B	0.0%	0.0%	14.3%	5%
C	8.5%	0.0%	0.0%	3%
Average	3%	0%	8%	4%

Growth Factored Vehicles

From/To	A	B	C	Totals
A	0	22	925	947
B	0	0	9	9
C	1104	0	0	1104
Totals	1104	22	934	2059

Growth Factored HGVs

From/To	A	B	C	Totals
A	0	0	42	42
B	0	0	1	1
C	42	0	0	42
Totals	42	0	43	85

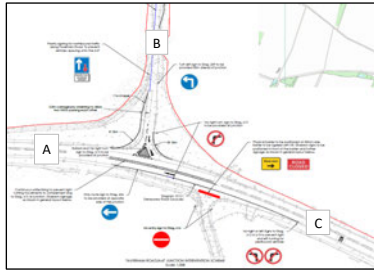
Growth Factored Total

From/To	A	B	C	Totals
A	0	22	967	989
B	0	0	10	10
C	1146	0	0	1146
Totals	1146	22	977	2145

%HGV

From/To	A	B	C	Average
A	0.0%	0.0%	4.4%	1%
B	0.0%	0.0%	11.1%	4%
C	3.7%	0.0%	0.0%	1%
Average	1%	0%	5%	2%

Junction 2a - A47 / Taverham Road Junction



Notes

Arm	Link	Road Name
A	94	A47 West of Taverham Road
B	-	Blind Lane
C	89	A47 East of Taverham Road
	90	Blind Lane (closed)

Growth Factor	AM Peak	PM Peak
All Vehicles	1.0777	1.0794

Construction Flows (SEP and DEP)

AM Peak Traffic

Vehicles				
From/To	A	B	C	Totals
A	0	80	99	179
B	0	0	0	0
C	80	0	0	80
Totals	80	80	99	259

HGVs				
From/To	A	B	C	Totals
A	0	7	41	48
B	0	0	7	7
C	48	0	0	48
Totals	48	7	48	103

Total				
From/To	A	B	C	Totals
A	0	87	140	228
B	0	0	7	7
C	128	0	0	128
Totals	128	87	147	362

%HGV				
From/To	A	B	C	Average
A	0.0%	7.9%	29.4%	12%
B	0.0%	0.0%	100.0%	33%
C	37.6%	0.0%	0.0%	13%
Average	13%	3%	43%	19%

PM Peak Traffic

Vehicles				
From/To	A	B	C	Totals
A	0	0	11	11
B	0	0	80	80
C	111	0	0	111
Totals	111	0	92	202

HGVs				
From/To	A	B	C	Totals
A	0	7	41	48
B	0	0	7	7
C	48	0	0	48
Totals	48	7	48	103

Total				
From/To	A	B	C	Totals
A	0	7	52	59
B	0	0	87	87
C	159	0	0	159
Totals	159	7	140	305

%HGV				
From/To	A	B	C	Average
A	0.0%	100.0%	78.8%	60%
B	0.0%	0.0%	7.9%	3%
C	30.3%	0.0%	0.0%	10%
Average	10%	33%	29%	24%

Forecast Flows + Construction Flows (SEP and DEP)

AM Peak Traffic

Vehicles				
From/To	A	B	C	Totals
A	0	90	1150	1240
B	0	0	6	6
C	925	0	0	925
Totals	925	90	1156	2171

HGVs				
From/To	A	B	C	Totals
A	0	7	174	181
B	0	0	8	8
C	127	0	0	127
Totals	127	7	182	315

Total				
From/To	A	B	C	Totals
A	0	97	1324	1421
B	0	0	14	14
C	1052	0	0	1052
Totals	1052	97	1338	2487

%HGV				
From/To	A	B	C	Average
A	0.0%	7.1%	13.1%	7%
B	0.0%	0.0%	55.1%	18%
C	12.1%	0.0%	0.0%	4%
Average	4%	2%	23%	10%

PM Peak Traffic

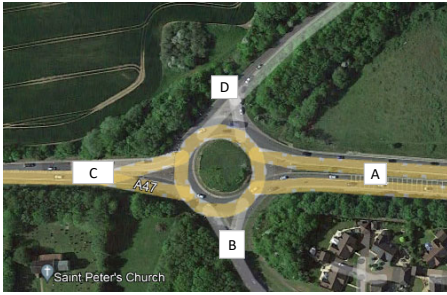
Vehicles				
From/To	A	B	C	Totals
A	0	22	936	958
B	0	0	89	89
C	1215	0	0	1215
Totals	1215	22	1025	2262

HGVs				
From/To	A	B	C	Totals
A	0	7	83	90
B	0	0	8	8
C	90	0	0	90
Totals	90	7	91	188

Total				
From/To	A	B	C	Totals
A	0	28	1020	1048
B	0	0	97	97
C	1305	0	0	1305
Totals	1305	28	1117	2450

%HGV				
From/To	A	B	C	Average
A	0.0%	24.1%	8.2%	11%
B	0.0%	0.0%	8.2%	3%
C	6.9%	0.0%	0.0%	2%
Average	2%	8%	5%	5%

Junction 3 - A47 / Dereham Road Roundabout



Notes

Arm	Link	Road Name
A	95	A47 East
B	93	Dereham Road
C	94	A47 West
D	-	Church Lane

Growth Factor	AM	PM
All Vehicles	1.0777	1.0794

Surveyed Flows (2021)

AM Peak Traffic
Tuesday 16th November 2021: 06:30 - 07:30 AM

Vehicles

From/To	A	B	C	D	Totals
A	3	46	736	53	838
B	26	0	23	7	56
C	947	31	0	10	988
D	112	9	30	0	151
Totals	1088	86	789	70	2033

HGVs

From/To	A	B	C	D	Totals
A	0	1	75	0	76
B	0	0	1	0	1
C	120	3	0	0	123
D	0	0	0	0	0
Totals	120	4	76	0	200

Total

From/To	A	B	C	D	Totals
A	3	47	811	53	914
B	26	0	24	7	57
C	1067	34	0	10	1111
D	112	9	30	0	151
Totals	1208	90	865	70	2233

%HGV

From/To	A	B	C	D	Average
A	0.0%	2.1%	9.2%	0.0%	3%
B	0.0%	0.0%	4.2%	0.0%	1%
C	11.2%	8.8%	0.0%	0.0%	5%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	3%	3%	3%	0%	2%

PM Peak Traffic
Tuesday 16th November 2021: 17:25 - 18:25 PM

Vehicles

From/To	A	B	C	D	Totals
A	7	17	960	82	1066
B	24	0	57	21	102
C	810	43	0	12	865
D	59	10	23	0	92
Totals	900	70	1040	115	2125

HGVs

From/To	A	B	C	D	Totals
A	1	0	36	0	36
B	0	0	1	0	1
C	38	4	0	0	42
D	0	0	0	0	0
Totals	39	4	37	0	80

Total

From/To	A	B	C	D	Totals
A	8	17	996	82	1103
B	24	0	58	21	103
C	848	47	0	12	907
D	59	10	23	0	92
Totals	939	74	1077	115	2205

%HGV

From/To	A	B	C	D	Average
A	12.5%	0.0%	3.6%	0.0%	4%
B	0.0%	0.0%	1.7%	0.0%	0%
C	4.5%	8.5%	0.0%	0.0%	3%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	4%	2%	1%	0%	2%

Forecast Flows (2025)

Growth Factored Vehicles

From/To	A	B	C	D	Totals
A	3	50	793	57	903
B	28	0	25	8	60
C	1021	33	0	11	1065
D	121	10	32	0	163
Totals	1173	93	850	75	2191

Growth Factored HGVs

From/To	A	B	C	D	Totals
A	0	1	81	0	82
B	0	0	1	0	1
C	129	3	0	0	133
D	0	0	0	0	0
Totals	129	4	82	0	216

Growth Factored Total

From/To	A	B	C	D	Totals
A	3	51	874	57	985
B	28	0	26	8	61
C	1150	37	0	11	1197
D	121	10	32	0	163
Totals	1302	97	932	75	2407

%HGV

From/To	A	B	C	D	Average
A	0.0%	2.1%	9.2%	0.0%	3%
B	0.0%	0.0%	4.2%	0.0%	1%
C	11.2%	8.8%	0.0%	0.0%	5%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	3%	3%	3%	0%	2%

Growth Factored Vehicles

From/To	A	B	C	D	Totals
A	8	18	1036	89	1151
B	26	0	62	23	110
C	874	46	0	13	934
D	64	11	25	0	99
Totals	971	76	1123	124	2294

Growth Factored HGVs

From/To	A	B	C	D	Totals
A	1	0	39	0	40
B	0	0	1	0	1
C	41	4	0	0	45
D	0	0	0	0	0
Totals	42	4	40	0	86

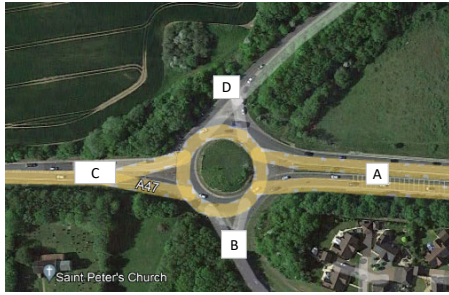
Growth Factored Total

From/To	A	B	C	D	Totals
A	9	18	1075	89	1191
B	26	0	63	23	111
C	915	51	0	13	979
D	64	11	25	0	99
Totals	1014	80	1163	124	2380

%HGV

From/To	A	B	C	D	Average
A	12.5%	0.0%	3.6%	0.0%	4%
B	0.0%	0.0%	1.7%	0.0%	0%
C	4.5%	8.5%	0.0%	0.0%	3%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	4%	2%	1%	0%	2%

Junction 3 - A47 / Dereham Road Roundabout



Notes

Arm	Link	Road Name
A	95	A47 East
B	93	Dereham Road
C	94	A47 West
D	-	Church Lane

Growth Factor	AM	PM
All Vehicles	1.0777	1.0794

Construction Flows (SEP and DEP)

AM Peak Traffic

Vehicles					
From/To	A	B	C	D	Totals
95 A	0	28	108	0	135
93 B	0	0	0	0	0
94 C	75	10	0	0	85
D	0	0	0	0	0
Totals	75	38	108	0	221

PM Peak Traffic

Vehicles					
From/To	A	B	C	D	Totals
A	0	0	75	0	75
B	28	0	10	0	38
C	108	0	0	0	108
D	0	0	0	0	0
Totals	135	0	85	0	221

HGVs					
From/To	A	B	C	D	Totals
A	0	7	32	0	39
B	7	0	13	0	20
C	32	12	0	0	43
D	0	0	0	0	0
Totals	39	19	45	0	102

HGVs					
From/To	A	B	C	D	Totals
A	0	7	32	0	39
B	7	0	12	0	19
C	32	13	0	0	45
D	0	0	0	0	0
Totals	39	20	43	0	102

Total					
From/To	A	B	C	D	Totals
A	0	35	139	0	174
B	7	0	13	0	20
C	107	22	0	0	129
D	0	0	0	0	0
Totals	113	57	152	0	323

Total					
From/To	A	B	C	D	Totals
A	0	7	107	0	113
B	35	0	22	0	57
C	139	13	0	0	152
D	0	0	0	0	0
Totals	174	20	129	0	323

%HGV					
From/To	A	B	C	D	Average
A	0.0%	20.0%	22.7%	0.0%	11%
B	100.0%	0.0%	100.0%	0.0%	50%
C	29.7%	52.7%	0.0%	0.0%	21%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	32%	18%	31%	0%	20%

%HGV					
From/To	A	B	C	D	Average
A	0.0%	100.0%	29.7%	0.0%	32%
B	20.0%	0.0%	52.7%	0.0%	18%
C	22.7%	100.0%	0.0%	0.0%	31%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	11%	50%	21%	0%	20%

Forecast Flows + Construction Flows (SEP and DEP)

AM Peak Traffic

Vehicles					
From/To	A	B	C	D	Totals
A	3	77	901	57	1038
B	28	0	25	8	60
C	1095	44	0	11	1150
D	121	10	32	0	163
Totals	1247	131	958	75	2412

PM Peak Traffic

Vehicles					
From/To	A	B	C	D	Totals
A	8	18	1111	89	1226
B	54	0	72	23	148
C	982	46	0	13	1041
D	64	11	25	0	99
Totals	1107	76	1208	124	2514

HGVs					
From/To	A	B	C	D	Totals
A	0	8	112	0	120
B	7	0	14	0	21
C	161	15	0	0	176
D	0	0	0	0	0
Totals	168	23	127	0	317

HGVs					
From/To	A	B	C	D	Totals
A	1	7	71	0	77
B	7	0	13	0	20
C	73	17	0	0	90
D	0	0	0	0	0
Totals	81	24	83	0	188

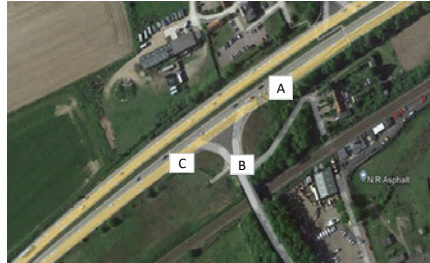
Total					
From/To	A	B	C	D	Totals
A	3	85	1013	57	1159
B	35	0	39	8	82
C	1256	59	0	11	1326
D	121	10	32	0	163
Totals	1415	154	1085	75	2729

Total					
From/To	A	B	C	D	Totals
A	9	25	1182	89	1304
B	61	0	85	23	168
C	1055	64	0	13	1131
D	64	11	25	0	99
Totals	1188	100	1291	124	2703

%HGV					
From/To	A	B	C	D	Average
A	0.0%	9.4%	11.1%	0.0%	5%
B	19.9%	0.0%	36.5%	0.0%	14%
C	12.8%	25.3%	0.0%	0.0%	10%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	8%	9%	12%	0%	7%

%HGV					
From/To	A	B	C	D	Average
A	12.5%	27.4%	6.0%	0.0%	11%
B	11.5%	0.0%	15.0%	0.0%	7%
C	6.9%	27.3%	0.0%	0.0%	9%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	8%	14%	5%	0%	7%

Junction 4 - A11 / Station Lane Junction



Notes

Arm	Link	Road Name
A	114	A11 east of Station Lane
B	118	Station Lane
C	114	A11 west of Station Lane

Growth Factor	AM Peak	PM Peak
All Vehicles	1.0777	1.0794

Surveyed Flows (2021)

AM Peak Traffic
Tuesday 16th November 2021: 06:30 - 07:30 AM

Vehicles

From/To	A	B	C	Totals
A	0	75	1557	1632
B	0	0	6	6
C	0	0	0	0
Totals	0	75	1563	1638

HGVs

From/To	A	B	C	Totals
A	0	7	103	110
B	0	0	21	21
C	0	0	0	0
Totals	0	7	124	131

Total

From/To	A	B	C	Totals
A	0	82	1660	1742
B	0	0	27	27
C	0	0	0	0
Totals	0	82	1687	1769

%HGV

From/To	A	B	C	Average
A	0.0%	8.5%	6.2%	5%
B	0.0%	0.0%	77.8%	26%
C	0.0%	0.0%	0.0%	0%
Average	0%	3%	28%	10%

PM Peak Traffic
Tuesday 16th November 2021: 17:25 - 18:25 PM

Vehicles

From/To	A	B	C	Totals
A	0	58	1446	1504
B	0	0	8	8
C	0	0	0	0
Totals	0	58	1454	1512

HGVs

From/To	A	B	C	Totals
A	0	1	49	50
B	0	0	1	1
C	0	0	0	0
Totals	0	1	50	51

Total

From/To	A	B	C	Totals
A	0	59	1495	1554
B	0	0	9	9
C	0	0	0	0
Totals	0	59	1504	1563

%HGV

From/To	A	B	C	Average
A	0.0%	1.7%	3.3%	2%
B	0.0%	0.0%	11.1%	4%
C	0.0%	0.0%	0.0%	0%
Average	0%	1%	5%	2%

Forecast Flows (2025)

Growth Factored Vehicles

From/To	A	B	C	Totals
A	0	81	1678	1759
B	0	0	6	6
C	0	0	0	0
Totals	0	81	1684	1765

Growth Factored HGVs

From/To	A	B	C	Totals
A	0	8	111	119
B	0	0	23	23
C	0	0	0	0
Totals	0	8	134	141

Growth Factored Total

From/To	A	B	C	Totals
A	0	88	1789	1877
B	0	0	29	29
C	0	0	0	0
Totals	0	88	1818	1906

%HGV

From/To	A	B	C	Average
A	0.0%	8.5%	6.2%	5%
B	0.0%	0.0%	77.8%	26%
C	0.0%	0.0%	0.0%	0%
Average	0%	3%	28%	10%

Growth Factored Vehicles

From/To	A	B	C	Totals
A	0	63	1561	1623
B	0	0	9	9
C	0	0	0	0
Totals	0	63	1569	1632

Growth Factored HGVs

From/To	A	B	C	Totals
A	0	1	53	54
B	0	0	1	1
C	0	0	0	0
Totals	0	1	54	55

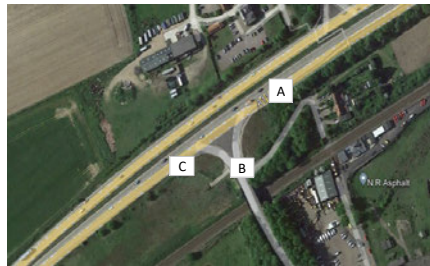
Growth Factored Total

From/To	A	B	C	Totals
A	0	64	1614	1677
B	0	0	10	10
C	0	0	0	0
Totals	0	64	1623	1687

%HGV

From/To	A	B	C	Average
A	0.0%	1.7%	3.3%	2%
B	0.0%	0.0%	11.1%	4%
C	0.0%	0.0%	0.0%	0%
Average	0%	1%	5%	2%

Junction 4 - A11 / Station Lane Junction



Notes

Arm	Link	Road Name
A	114	A11 east of Station Lane
B	118	Station Lane
C	114	A11 west of Station Lane

Growth Factor	AM Peak	PM Peak
All Vehicles	1.0777	1.0794

Construction Flows (SEP and DEP)

AM Peak Traffic

Vehicles				
From/To	A	B	C	Totals
A	0	132	4	135
B	0	0	0	0
C	0	0	0	0
Totals	0	132	4	135

HGVs				
From/To	A	B	C	Totals
A	0	12	4	16
B	0	0	12	12
C	0	0	0	0
Totals	0	12	16	27

Total				
From/To	A	B	C	Totals
A	0	143	8	151
B	0	0	12	12
C	0	0	0	0
Totals	0	143	19	163

%HGV				
From/To	A	B	C	Average
A	0.0%	8.2%	50.4%	20%
B	0.0%	0.0%	100.0%	33%
C	0.0%	0.0%	0.0%	0%
Average	0%	3%	50%	18%

PM Peak Traffic

Vehicles				
From/To	A	B	C	Totals
A	0	0	0	0
B	0	0	132	132
C	0	0	0	0
Totals	0	0	132	132

HGVs				
From/To	A	B	C	Totals
A	0	12	4	16
B	0	0	12	12
C	0	0	0	0
Totals	0	12	16	27

Total				
From/To	A	B	C	Totals
A	0	12	4	16
B	0	0	143	143
C	0	0	0	0
Totals	0	12	147	159

%HGV				
From/To	A	B	C	Average
A	0.0%	100.0%	100.0%	67%
B	0.0%	0.0%	8.2%	3%
C	0.0%	0.0%	0.0%	0%
Average	0%	33%	36%	23%

Forecast Flows + Construction Flows (SEP and DEP)

AM Peak Traffic

Vehicles				
From/To	A	B	C	Totals
A	0	212	1682	1894
B	0	0	6	6
C	0	0	0	0
Totals	0	212	1688	1901

HGVs				
From/To	A	B	C	Totals
A	0	19	115	134
B	0	0	34	34
C	0	0	0	0
Totals	0	19	149	169

Total				
From/To	A	B	C	Totals
A	0	232	1797	2028
B	0	0	41	41
C	0	0	0	0
Totals	0	232	1837	2069

%HGV				
From/To	A	B	C	Average
A	0.0%	8.3%	6.4%	5%
B	0.0%	0.0%	84.2%	28%
C	0.0%	0.0%	0.0%	0%
Average	0%	3%	30%	11%

PM Peak Traffic

Vehicles				
From/To	A	B	C	Totals
A	0	63	1561	1623
B	0	0	140	140
C	0	0	0	0
Totals	0	63	1701	1764

HGVs				
From/To	A	B	C	Totals
A	0	13	57	70
B	0	0	13	13
C	0	0	0	0
Totals	0	13	70	82

Total				
From/To	A	B	C	Totals
A	0	75	1618	1693
B	0	0	153	153
C	0	0	0	0
Totals	0	75	1771	1846

%HGV				
From/To	A	B	C	Average
A	0.0%	17.0%	3.5%	7%
B	0.0%	0.0%	8.4%	3%
C	0.0%	0.0%	0.0%	0%
Average	0%	6%	4%	3%

Junction 5 - A47 / A11 Roundabout



Notes

Arm	Link	Road Name
A	-	Unnamed Road
B	121	A11 West
C	122	A47 Northbound (off ramp)
D	114	A11 West
E	106	B1172
F	105	A47 Southbound (off ramp)

Growth Factor	AM	PM
All Vehicles	1.0777	1.0794

PCU Factors

Vehicles	HGVs
1	2

Surveyed Flows (2021)

AM Peak Traffic
Tuesday 16th November 2021: 06:30 - 07:30 AM

Vehicles (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	2	0	0	0	0	2
B	3	0	120	520	78	89	810
C	2	292	6	732	155	43	1230
D	1	458	369	6	52	291	1177
E	1	155	257	38	0	7	458
F	0	117	0	346	124	0	587
Totals	7	1024	752	1642	409	430	4264

HGVs (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	2	66	16	8	92
C	2	2	2	96	22	8	132
D	0	92	136	2	20	84	334
E	0	16	14	6	0	12	48
F	0	12	0	50	16	0	78
Totals	2	122	154	220	74	112	684

Total (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	2	0	0	0	0	2
B	3	0	122	586	94	97	902
C	4	294	8	828	177	51	1362
D	1	650	505	8	72	375	1511
E	1	171	271	44	0	19	506
F	0	129	0	396	140	0	665
Totals	9	1146	906	1862	483	542	4948

PM Peak Traffic
Tuesday 16th November 2021: 17:25 - 18:25 PM

Vehicles (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	1	0	0	1
B	0	0	269	633	160	158	1220
C	1	186	1	513	204	21	926
D	2	622	483	5	57	354	1523
E	0	170	330	42	0	45	587
F	0	163	3	330	83	0	579
Totals	3	1141	1086	1524	504	578	4836

HGVs (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	26	18	12	56
C	0	0	2	64	2	0	68
D	0	26	38	0	2	10	76
E	0	12	4	0	0	2	18
F	0	10	0	12	4	0	26
Totals	0	48	44	102	26	24	244

Totals (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	2	0	1	0	0	3
B	0	0	269	659	178	170	1276
C	1	188	3	517	206	21	936
D	2	648	521	5	59	364	1599
E	0	182	334	42	0	47	605
F	0	173	3	342	87	0	605
Totals	3	1189	1130	1626	530	602	5080

Forecast Flows (2025)

Growth Factored Vehicles (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	2	0	0	0	0	2
B	3	0	129	560	84	96	873
C	2	315	6	789	167	46	1326
D	1	494	398	6	66	314	1268
E	1	167	277	41	0	8	494
F	0	126	0	373	134	0	633
Totals	8	1104	810	1770	441	463	4595

Growth Factored HGVs (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	2	71	17	9	99
C	2	2	2	103	24	9	142
D	0	99	147	2	22	91	360
E	0	17	15	6	0	13	52
F	0	13	0	54	17	0	84
Totals	2	131	166	237	80	121	737

Growth Factored Total (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	2	0	0	0	0	2
B	3	0	131	632	101	105	972
C	4	317	9	892	191	55	1468
D	1	593	544	9	78	404	1628
E	1	184	292	47	0	20	545
F	0	139	0	427	151	0	717
Totals	10	1235	976	2007	521	584	5332

Growth Factored Vehicles (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	1	0	0	1
B	0	0	290	683	173	171	1317
C	1	201	1	554	220	23	1000
D	2	671	521	5	62	382	1644
E	0	183	356	45	0	49	634
F	0	176	3	356	90	0	625
Totals	3	1232	1172	1645	544	624	5220

Growth Factored HGVs (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	28	19	13	60
C	0	0	2	69	2	0	73
D	0	28	41	0	2	11	82
E	0	13	4	0	0	2	19
F	0	11	0	13	4	0	28
Totals	0	52	47	110	28	26	263

Growth Factored Total (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	2	0	1	0	0	3
B	0	0	290	711	192	183	1377
C	1	201	3	623	222	23	1073
D	2	699	562	5	64	393	1726
E	0	196	361	45	0	51	653
F	0	187	3	369	94	0	653
Totals	3	1283	1220	1755	572	650	5483

Junction 5 - A47 / A11 Roundabout



Notes

Arm	Link	Road Name
A	-	Unnamed Road
B	121	A11 West
C	122	A47 Northbound (off ramp)
D	114	A11 West
E	106	B1172
F	105	A47 Southbound (off ramp)

Growth Factor	AM	PM
All Vehicles	1.0777	1.0794

PCU Factors

Vehicles	HGVs
1	2

Construction Flows (SEP and DEP)

AM Peak Traffic

Vehicles (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	2	1	3	5
C	0	0	0	44	24	0	68
D	0	0	9	0	0	53	62
E	0	0	0	0	0	0	0
F	0	0	0	77	12	0	89
Totals	0	0	9	123	37	56	224

HGVs (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0
C	0	0	0	11	3	0	14
D	0	0	11	0	0	18	29
E	0	0	3	0	0	6	9
F	0	0	0	18	6	0	24
Totals	0	0	14	29	9	24	77

Total (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	2	1	3	5
C	0	0	0	55	27	0	82
D	0	0	20	0	0	71	91
E	0	0	3	0	0	6	9
F	0	0	0	95	18	0	113
Totals	0	0	23	152	46	80	301

PM Peak Traffic

Vehicles (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0
C	0	0	0	9	0	0	9
D	0	2	44	0	0	0	77
E	0	1	24	0	0	0	12
F	0	3	0	53	0	0	56
Totals	0	5	68	62	0	0	89

HGVs (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0
C	0	0	0	11	3	0	14
D	0	0	11	0	0	18	29
E	0	0	3	0	0	6	9
F	0	0	0	18	6	0	24
Totals	0	0	14	29	9	24	77

Total (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0
C	0	0	0	20	3	0	23
D	0	2	55	0	0	95	152
E	0	1	27	0	0	18	46
F	0	3	0	71	6	0	80
Totals	0	5	82	91	9	113	301

Forecast Flows + Construction Flows (SEP and DEP)

AM Peak Traffic

Vehicles (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	2	0	0	0	0	2
B	3	0	129	562	85	99	878
C	2	315	6	833	191	46	1394
D	1	494	407	6	56	367	1330
E	1	167	277	41	0	8	494
F	0	126	0	459	146	0	721
Totals	8	1104	819	1892	478	519	4820

HGVs (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	2	71	17	9	99
C	2	2	2	114	27	9	156
D	0	99	157	2	22	109	389
E	0	17	18	6	0	19	61
F	0	13	0	72	23	0	108
Totals	2	131	180	266	89	145	814

Total (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	2	0	0	0	0	2
B	3	0	131	633	102	107	977
C	4	317	9	947	218	55	1550
D	1	593	564	9	78	476	1719
E	1	184	295	47	0	26	554
F	0	139	0	522	169	0	830
Totals	10	1235	1000	2159	566	664	5633

PM Peak Traffic

Vehicles (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	1	0	0	1
B	0	0	290	683	173	171	1317
C	1	201	1	563	220	23	1008
D	2	673	566	5	62	459	1767
E	0	184	380	45	0	61	670
F	0	179	3	409	90	0	681
Totals	3	1237	1240	1707	544	713	5444

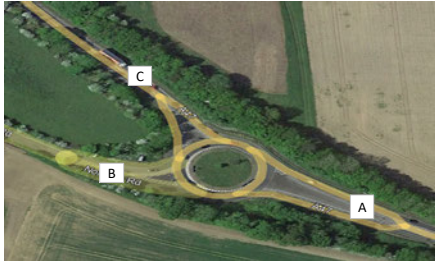
HGVs (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	0	0	0	0
B	0	0	0	28	19	13	60
C	0	0	2	80	6	0	87
D	0	28	52	0	2	29	111
E	0	13	8	0	0	8	28
F	0	11	0	31	10	0	52
Totals	0	52	62	139	37	50	339

Total (in PCU Values)

From/To	A	B	C	D	E	F	Totals
A	0	0	0	1	0	0	1
B	0	0	290	711	192	183	1377
C	1	201	3	642	226	23	1096
D	2	701	617	5	64	488	1878
E	0	197	388	45	0	69	699
F	0	189	3	441	100	0	733
Totals	3	1289	1302	1846	581	763	5784

Junction 7 - A47 / Norwich Road Roundabout



Notes

Arm	Link	Road Name
A	89	A47 East
B	-	Norwich Road
C	89	A47 West

Growth Factor	AM Peak	PM Peak
All Vehicles	1.0777	1.0794

Surveyed Flows (2021)

AM Peak Traffic
Tuesday 16th November 2021: 06:30 - 07:30 AM

Vehicles

From/To	A	B	C	Totals
A	0	81	704	785
B	130	0	9	139
C	875	5	2	882
Totals	1005	86	715	1806

HGVs

From/To	A	B	C	Totals
A	0	3	70	73
B	5	5	0	10
C	120	2	0	122
Totals	125	10	70	205

Total

From/To	A	B	C	Totals
A	0	84	774	858
B	135	5	9	149
C	995	7	2	1004
Totals	1130	96	785	2011

%HGV

From/To	A	B	C	Average
A	0.0%	3.6%	9.0%	4%
B	3.7%	100.0%	0.0%	35%
C	12.1%	28.6%	0.0%	14%
Average	5%	44%	3%	17%

PM Peak Traffic
Tuesday 16th November 2021: 17:25 - 18:25 PM

Vehicles

From/To	A	B	C	Totals
A	3	116	925	1044
B	96	0	9	105
C	770	10	2	782
Totals	869	126	936	1931

HGVs

From/To	A	B	C	Totals
A	0	1	37	38
B	2	2	0	4
C	37	1	0	38
Totals	39	4	37	80

Total

From/To	A	B	C	Totals
A	3	117	962	1082
B	98	2	9	109
C	807	11	2	820
Totals	908	130	973	2011

%HGV

From/To	A	B	C	Average
A	0.0%	0.9%	3.8%	2%
B	2.0%	100.0%	0.0%	34%
C	4.6%	9.1%	0.0%	5%
Average	2%	37%	1%	13%

Forecast Flows (2025)

Growth Factored Vehicles

From/To	A	B	C	Totals
A	0	87	759	846
B	140	0	10	150
C	943	5	2	951
Totals	1083	93	771	1946

Growth Factored HGVs

From/To	A	B	C	Totals
A	0	3	75	79
B	5	5	0	11
C	129	2	0	131
Totals	135	11	75	221

Growth Factored Total

From/To	A	B	C	Totals
A	0	91	834	925
B	145	5	10	161
C	1072	8	2	1082
Totals	1218	103	846	2167

%HGV

From/To	A	B	C	Average
A	0.0%	3.6%	9.0%	4%
B	3.7%	100.0%	0.0%	35%
C	12.1%	28.6%	0.0%	14%
Average	5%	44%	3%	17%

Growth Factored Vehicles

From/To	A	B	C	Totals
A	3	125	998	1127
B	104	0	10	113
C	831	11	2	844
Totals	938	136	1010	2084

Growth Factored HGVs

From/To	A	B	C	Totals
A	0	1	40	41
B	2	2	0	4
C	40	1	0	41
Totals	42	4	40	86

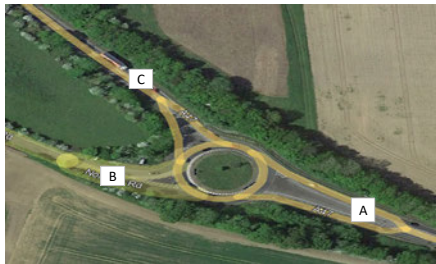
Growth Factored Total

From/To	A	B	C	Totals
A	3	126	1038	1168
B	106	2	10	118
C	871	12	2	885
Totals	980	140	1050	2171

%HGV

From/To	A	B	C	Average
A	0.0%	0.9%	3.8%	2%
B	2.0%	100.0%	0.0%	34%
C	4.6%	9.1%	0.0%	5%
Average	2%	37%	1%	13%

Junction 7 - A47 / Norwich Road Roundabout



Notes

Arm	Link	Road Name
A	89	A47 East
B	-	Norwich Road
C	89	A47 West

Growth Factor	AM Peak	PM Peak
All Vehicles	1.0777	1.0794

Construction Flows (SEP and DEP)

AM Peak Traffic

Vehicles				
From/To	A	B	C	Totals
A	0	0	22	22
B	0	0	0	0
C	158	0	0	158
Totals	158	0	22	179

HGVs				
From/To	A	B	C	Totals
A	0	0	17	17
B	0	0	0	0
C	17	0	0	17
Totals	17	0	17	34

Total				
From/To	A	B	C	Totals
A	0	0	39	39
B	0	0	0	0
C	174	0	0	174
Totals	174	0	39	213

%HGV				
From/To	A	B	C	Average
A	0.0%	0.0%	43.9%	15%
B	0.0%	0.0%	0.0%	0%
C	9.7%	0.0%	0.0%	3%
Average	3%	0%	15%	6%

PM Peak Traffic

Vehicles				
From/To	A	B	C	Totals
A	0	0	158	158
B	0	0	0	0
C	22	0	0	22
Totals	22	0	158	179

HGVs				
From/To	A	B	C	Totals
A	0	0	17	17
B	0	0	0	0
C	17	0	0	17
Totals	17	0	17	34

Total				
From/To	A	B	C	Totals
A	0	0	174	174
B	0	0	0	0
C	39	0	0	39
Totals	39	0	174	213

%HGV				
From/To	A	B	C	Average
A	0.0%	0.0%	9.7%	3%
B	0.0%	0.0%	0.0%	0%
C	43.9%	0.0%	0.0%	15%
Average	15%	0%	3%	6%

Forecast Flows + Construction Flows (SEP and DEP)

AM Peak Traffic

Vehicles				
From/To	A	B	C	Totals
A	0	87	780	868
B	140	0	10	150
C	1100	5	2	1108
Totals	1241	93	792	2126

HGVs				
From/To	A	B	C	Totals
A	0	3	92	96
B	5	5	0	11
C	146	2	0	148
Totals	152	11	92	255

Total				
From/To	A	B	C	Totals
A	0	91	873	963
B	145	5	10	161
C	1247	8	2	1256
Totals	1392	103	885	2380

%HGV				
From/To	A	B	C	Average
A	0.0%	3.6%	10.6%	5%
B	3.7%	100.0%	0.0%	35%
C	11.7%	28.6%	0.0%	13%
Average	5%	44%	4%	18%

PM Peak Traffic

Vehicles				
From/To	A	B	C	Totals
A	3	125	1156	1284
B	104	0	10	113
C	853	11	2	866
Totals	960	136	1168	2264

HGVs				
From/To	A	B	C	Totals
A	0	1	57	58
B	2	2	0	4
C	57	1	0	58
Totals	59	4	57	120

Total				
From/To	A	B	C	Totals
A	3	126	1213	1342
B	106	2	10	118
C	910	12	2	924
Totals	1019	140	1225	2384

%HGV				
From/To	A	B	C	Average
A	0.0%	0.9%	4.7%	2%
B	2.0%	100.0%	0.0%	34%
C	6.3%	9.1%	0.0%	5%
Average	3%	37%	2%	14%

Junction 8 - A47 / A1074 Roundabout



Notes

Arm	Link	Road Name
A	96	A1074
B	97	A47 South
C	-	Unnamed Road
D	95	A47 North
E	-	William Frost Way

Growth Factor	AM	PM
All Vehicles	1.0777	1.0794

Surveyed Flows (2021)

AM Peak Traffic
Tuesday 16th November 2021: 06:30 - 07:30 AM

From/To	A	B	C	D	E	Totals
A	0	426	308	0	175	909
B	0	0	0	0	0	0
C	207	41	0	0	149	397
D	188	0	20	0	77	285
E	199	244	90	0	1	534
Totals	594	711	418	0	402	2125

From/To	A	B	C	D	E	Totals
A	0	9	6	0	14	29
B	0	0	0	0	0	0
C	16	11	0	0	30	57
D	21	0	3	0	5	29
E	26	26	13	0	2	67
Totals	63	46	22	0	51	182

From/To	A	B	C	D	E	Totals
A	0	435	314	0	189	938
B	0	0	0	0	0	0
C	223	52	0	0	179	454
D	209	0	23	0	82	314
E	225	270	103	0	3	601
Totals	657	757	440	0	453	2307

From/To	A	B	C	D	E	Average
A	0.0%	2.1%	1.9%	0.0%	7.4%	2%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	7.2%	21.2%	0.0%	0.0%	16.8%	9%
D	10.0%	0.0%	13.0%	0.0%	6.1%	6%
E	11.6%	9.6%	12.6%	0.0%	66.7%	20%
Average	0.1	0.1	0.1	0.0	0.2	7%

PM Peak Traffic
Tuesday 16th November 2021: 17:25 - 18:25 PM

From/To	A	B	C	D	E	Totals
A	2	258	349	0	556	1165
B	0	0	0	0	0	0
C	401	123	0	0	504	1028
D	166	2	4	0	178	350
E	478	320	205	0	19	1022
Totals	1047	703	558	0	1257	3565

From/To	A	B	C	D	E	Totals
A	0	2	6	0	8	16
B	0	0	0	0	0	0
C	8	10	0	0	2	20
D	3	0	1	0	5	9
E	2	2	1	0	0	5
Totals	13	14	8	0	15	50

From/To	A	B	C	D	E	Totals
A	2	260	355	0	564	1181
B	0	0	0	0	0	0
C	409	133	0	0	506	1048
D	169	2	5	0	183	359
E	480	322	206	0	19	1027
Totals	1060	717	566	0	1272	3615

From/To	A	B	C	D	E	Average
A	0.0%	0.8%	1.7%	0.0%	1.4%	1%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	2.0%	7.5%	0.0%	0.0%	0.4%	2%
D	1.8%	0.0%	20.0%	0.0%	2.7%	5%
E	0.4%	0.6%	0.5%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	0.0	2%

Forecast Flows (2025)

From/To	A	B	C	D	E	Totals
A	0	459	332	0	189	980
B	0	0	0	0	0	0
C	223	44	0	0	161	428
D	203	0	22	0	83	307
E	214	263	97	0	1	575
Totals	640	766	450	0	433	2290

From/To	A	B	C	D	E	Totals
A	0	10	6	0	15	31
B	0	0	0	0	0	0
C	17	12	0	0	32	61
D	23	0	3	0	5	31
E	28	28	14	0	2	72
Totals	68	50	24	0	55	196

From/To	A	B	C	D	E	Totals
A	0	469	338	0	204	1011
B	0	0	0	0	0	0
C	240	56	0	0	193	489
D	225	0	25	0	88	338
E	242	291	111	0	3	648
Totals	708	816	474	0	488	2486

From/To	A	B	C	D	E	Average
A	0.0%	2.1%	1.9%	0.0%	7.4%	2%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	7.2%	21.2%	0.0%	0.0%	16.8%	9%
D	10.0%	0.0%	13.0%	0.0%	6.1%	6%
E	11.6%	9.6%	12.6%	0.0%	66.7%	20%
Average	0.1	0.1	0.1	0.0	0.2	7%

From/To	A	B	C	D	E	Totals
A	2	278	377	0	600	1258
B	0	0	0	0	0	0
C	433	133	0	0	544	1110
D	179	2	4	0	192	378
E	516	345	221	0	21	1103
Totals	1130	759	602	0	1357	3848

From/To	A	B	C	D	E	Totals
A	0	2	6	0	9	17
B	0	0	0	0	0	0
C	9	11	0	0	2	22
D	3	0	1	0	5	10
E	2	2	1	0	0	5
Totals	14	15	9	0	16	54

From/To	A	B	C	D	E	Totals
A	2	281	383	0	609	1275
B	0	0	0	0	0	0
C	441	144	0	0	546	1131
D	182	2	5	0	198	387
E	518	348	222	0	21	1109
Totals	1144	774	611	0	1373	3902

From/To	A	B	C	D	E	Average
A	0.0%	0.8%	1.7%	0.0%	1.4%	1%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	2.0%	7.5%	0.0%	0.0%	0.4%	2%
D	1.8%	0.0%	20.0%	0.0%	2.7%	5%
E	0.4%	0.6%	0.5%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	0.0	2%

Junction 8 - A47 / A1074 Roundabout



Notes

Arm	Link	Road Name
A	96	A1074
B	97	A47 South
C	-	Unnamed Road
D	95	A47 North
E	-	William Frost Way

Growth Factor	AM	PM
All Vehicles	1.0777	1.0794

Construction Flows (SEP and DEP)

AM Peak Traffic

From/To	A	B	C	D	E	Totals
A	0	17	20	0	0	37
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	0	0	0	0	0	0
Totals	0	17	20	0	0	37

PM Peak Traffic

From/To	A	B	C	D	E	Totals
A	0	0	0	0	0	0
B	0	0	0	0	0	0
C	17	0	0	0	0	17
D	20	0	0	0	0	20
E	0	0	0	0	0	0
Totals	37	0	0	0	0	37

From/To	A	B	C	D	E	Totals
A	0	0	0	0	0	0
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	0	0	0	0	0	0
Totals	0	0	0	0	0	0

From/To	A	B	C	D	E	Totals
A	0	0	0	0	0	0
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	0	0	0	0	0	0
Totals	0	0	0	0	0	0

From/To	A	B	C	D	E	Totals
A	0	17	20	0	0	37
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	0	0	0	0	0	0
Totals	0	17	20	0	0	37

From/To	A	B	C	D	E	Totals
A	0	0	0	0	0	0
B	0	0	0	0	0	0
C	17	0	0	0	0	17
D	20	0	0	0	0	20
E	0	0	0	0	0	0
Totals	37	0	0	0	0	37

From/To	A	B	C	D	E	Average
A	0.0%	0.0%	0.0%	0.0%	0.0%	0%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	0.0%	0.0%	0.0%	0.0%	0.0%	0%
D	0.0%	0.0%	0.0%	0.0%	0.0%	0%
E	0.0%	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	0.0	0%

From/To	A	B	C	D	E	Average
A	0.0%	0.0%	0.0%	0.0%	0.0%	0%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	0.0%	0.0%	0.0%	0.0%	0.0%	0%
D	0.0%	0.0%	0.0%	0.0%	0.0%	0%
E	0.0%	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	0.0	0%

Forecast Flows + Construction Flows (SEP and DEP)

AM Peak Traffic

From/To	A	B	C	D	E	Totals
A	0	476	352	0	189	1017
B	0	0	0	0	0	0
C	223	44	0	0	161	428
D	203	0	22	0	83	307
E	214	263	97	0	1	575
Totals	640	783	470	0	433	2327

PM Peak Traffic

From/To	A	B	C	D	E	Totals
A	2	278	377	0	600	1258
B	0	0	0	0	0	0
C	450	133	0	0	544	1127
D	199	2	4	0	192	398
E	516	345	221	0	21	1103
Totals	1167	759	602	0	1357	3886

From/To	A	B	C	D	E	Totals
A	0	10	6	0	15	31
B	0	0	0	0	0	0
C	17	12	0	0	32	61
D	23	0	3	0	5	31
E	28	28	14	0	2	72
Totals	68	50	24	0	55	196

From/To	A	B	C	D	E	Totals
A	0	2	6	0	9	17
B	0	0	0	0	0	0
C	9	11	0	0	2	22
D	3	0	1	0	5	10
E	2	2	1	0	0	5
Totals	14	15	9	0	16	54

From/To	A	B	C	D	E	Totals
A	0	486	358	0	204	1048
B	0	0	0	0	0	0
C	240	56	0	0	193	489
D	225	0	25	0	88	338
E	242	291	111	0	3	646
Totals	708	833	494	0	488	2523

From/To	A	B	C	D	E	Totals
A	2	281	383	0	609	1275
B	0	0	0	0	0	0
C	459	144	0	0	546	1148
D	202	2	5	0	198	408
E	518	348	222	0	21	1109
Totals	1181	774	611	0	1373	3939

From/To	A	B	C	D	E	Average
A	0.0%	2.0%	1.8%	0.0%	7.4%	2%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	7.2%	21.2%	0.0%	0.0%	16.8%	9%
D	10.0%	0.0%	13.0%	0.0%	6.1%	6%
E	11.6%	9.6%	12.6%	0.0%	66.7%	20%
Average	0.1	0.1	0.1	0.0	0.2	7%

From/To	A	B	C	D	E	Average
A	0.0%	0.8%	1.7%	0.0%	1.4%	1%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	1.9%	7.5%	0.0%	0.0%	0.4%	2%
D	1.6%	0.0%	20.0%	0.0%	2.7%	5%
E	0.4%	0.6%	0.5%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	0.0	2%

Junction 9 - A47 / Long Lane Roundabout



Notes

Arm	Link	Road Name
A	-	Unnamed Road
B	97	A47 South
C	-	Long Lane
D	95	A47 North
E	-	Unnamed Road

Growth Factor	AM	PM
All Vehicles	1.0777	1.0794

Surveyed Flows (2021)

AM Peak Traffic
Tuesday 16th November 2021: 06:30 - 07:30 AM

Vehicles						
From/To	A	B	C	D	E	Totals
A	1	0	80	48	289	418
B	295	0	35	31	10	371
C	10	0	0	2	3	15
D	91	0	8	0	2	101
E	0	0	0	0	0	0
Totals	397	0	123	81	304	905

HGVs						
From/To	A	B	C	D	E	Totals
A	0	0	3	0	19	22
B	42	0	3	6	0	51
C	7	0	0	0	0	7
D	8	1	0	0	1	10
E	0	0	0	0	0	0
Totals	57	1	6	6	20	90

Total						
From/To	A	B	C	D	E	Totals
A	1	0	83	48	308	440
B	337	0	38	37	10	422
C	17	0	0	2	3	22
D	99	1	8	0	3	111
E	0	0	0	0	0	0
Totals	454	1	129	0	324	995

%HGV						
From/To	A	B	C	D	E	Average
A	0.0%	0.0%	3.6%	0.0%	6.2%	2%
B	12.5%	0.0%	7.9%	16.2%	0.0%	7%
C	41.2%	0.0%	0.0%	0.0%	0.0%	8%
D	8.1%	100.0%	0.0%	0.0%	33.3%	28%
E	0.0%	0.0%	0.0%	0.0%	0.0%	0%
Average	0.1	0.2	0.0	0.0	0.1	9%

PM Peak Traffic
Tuesday 16th November 2021: 17:25 - 18:25 PM

Vehicles						
From/To	A	B	C	D	E	Totals
A	0	0	38	124	396	558
B	664	0	8	64	13	749
C	174	0	0	15	38	227
D	190	0	4	0	9	203
E	0	0	0	0	0	0
Totals	1028	0	50	203	456	1737

HGVs						
From/To	A	B	C	D	E	Totals
A	0	0	2	1	5	8
B	6	0	9	3	1	19
C	11	0	0	0	1	12
D	3	0	0	0	1	4
E	0	0	0	0	0	0
Totals	20	0	11	4	8	43

Totals						
From/To	A	B	C	D	E	Totals
A	0	0	40	125	401	566
B	670	0	17	67	14	768
C	185	0	0	15	39	239
D	193	0	4	0	10	207
E	0	0	0	0	0	0
Totals	1048	0	61	0	464	1790

%HGV						
From/To	A	B	C	D	E	Average
A	0.0%	0.0%	5.0%	0.8%	1.2%	1%
B	0.9%	0.0%	52.9%	4.5%	7.1%	13%
C	5.9%	0.0%	0.0%	0.0%	2.6%	2%
D	1.6%	0.0%	0.0%	0.0%	10.0%	2%
E	0.0%	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.1	0.0	0.0	4%

Forecast Flows (2025)

Growth Factored Vehicles						
From/To	A	B	C	D	E	Totals
A	1	0	86	52	311	450
B	318	0	38	33	11	400
C	11	0	0	2	3	16
D	98	0	9	0	2	109
E	0	0	0	0	0	0
Totals	428	0	133	0	328	975

Growth Factored HGVs						
From/To	A	B	C	D	E	Totals
A	0	0	3	0	20	24
B	45	0	3	6	0	55
C	8	0	0	0	0	8
D	9	1	0	0	1	11
E	0	0	0	0	0	0
Totals	61	1	6	0	22	97

Growth Factored Total						
From/To	A	B	C	D	E	Totals
A	1	0	89	52	332	474
B	363	0	41	40	11	455
C	18	0	0	2	3	24
D	107	1	9	0	3	120
E	0	0	0	0	0	0
Totals	489	1	139	0	349	1072

%HGV						
From/To	A	B	C	D	E	Average
A	0.0%	0.0%	3.6%	0.0%	6.2%	2%
B	12.5%	0.0%	7.9%	16.2%	0.0%	7%
C	41.2%	0.0%	0.0%	0.0%	0.0%	8%
D	8.1%	100.0%	0.0%	0.0%	33.3%	28%
E	0.0%	0.0%	0.0%	0.0%	0.0%	0%
Average	0.1	0.2	0.0	0.0	0.1	9%

Growth Factored Vehicles						
From/To	A	B	C	D	E	Totals
A	0	0	41	134	427	602
B	717	0	9	69	14	809
C	188	0	0	16	41	245
D	205	0	4	0	10	219
E	0	0	0	0	0	0
Totals	1110	0	54	0	492	1875

Growth Factored HGVs						
From/To	A	B	C	D	E	Totals
A	0	0	2	1	5	9
B	6	0	10	3	1	20
C	12	0	0	0	1	13
D	3	0	0	0	1	4
E	0	0	0	0	0	0
Totals	22	0	12	0	9	46

Growth Factored Total						
From/To	A	B	C	D	E	Totals
A	0	0	43	135	433	611
B	723	0	18	72	15	828
C	200	0	0	16	42	258
D	208	0	4	0	11	223
E	0	0	0	0	0	0
Totals	1131	0	66	0	501	1921

%HGV						
From/To	A	B	C	D	E	Average
A	0.0%	0.0%	5.0%	0.8%	1.2%	1%
B	0.9%	0.0%	52.9%	4.5%	7.1%	13%
C	5.9%	0.0%	0.0%	0.0%	2.6%	2%
D	1.6%	0.0%	0.0%	0.0%	10.0%	2%
E	0.0%	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.1	0.0	0.0	4%

Junction 9 - A47 / Long Lane Roundabout



Notes

Arm	Link	Road Name
A	-	Unnamed Road
B	97	A47 South
C	-	Long Lane
D	95	A47 North
E	-	Unnamed Road

Growth Factor	AM	PM
All Vehicles	1.0777	1.0794

Construction Flows (SEP and DEP)

AM Peak Traffic

From/To	A	B	C	D	E	Totals
A	0	0	0	0	20	20
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	0	0	0	0	0	0
Totals	0	0	0	0	20	20

PM Peak Traffic

From/To	A	B	C	D	E	Totals
A	0	0	0	0	0	0
B	17	0	0	0	0	17
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	0	0	0	0	0	0
Totals	17	0	0	0	0	17

From/To	A	B	C	D	E	Totals
A	0	0	0	0	0	0
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	0	0	0	0	0	0
Totals	0	0	0	0	0	0

From/To	A	B	C	D	E	Totals
A	0	0	0	0	0	0
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	0	0	0	0	0	0
Totals	0	0	0	0	0	0

From/To	A	B	C	D	E	Totals
A	0	0	0	0	20	20
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	0	0	0	0	0	0
Totals	0	0	0	0	20	20

From/To	A	B	C	D	E	Totals
A	0	0	0	0	0	0
B	17	0	0	0	0	17
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	0	0	0	0	0	0
Totals	17	0	0	0	0	17

From/To	A	B	C	D	E	Average
A	0.0%	0.0%	0.0%	0.0%	0.0%	0%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	0.0%	0.0%	0.0%	0.0%	0.0%	0%
D	0.0%	0.0%	0.0%	0.0%	0.0%	0%
E	0.0%	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	0.0	0%

From/To	A	B	C	D	E	Average
A	0.0%	0.0%	0.0%	0.0%	0.0%	0%
B	0.0%	0.0%	0.0%	0.0%	0.0%	0%
C	0.0%	0.0%	0.0%	0.0%	0.0%	0%
D	0.0%	0.0%	0.0%	0.0%	0.0%	0%
E	0.0%	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	0.0	0%

Forecast Flows + Construction Flows (SEP and DEP)

AM Peak Traffic

From/To	A	B	C	D	E	Totals
A	1	0	86	52	331	470
B	318	0	38	33	11	400
C	11	0	0	2	3	16
D	88	0	9	0	2	109
E	0	0	0	0	0	0
Totals	428	0	133	87	348	995

PM Peak Traffic

From/To	A	B	C	D	E	Totals
A	0	0	41	134	427	602
B	734	0	9	69	14	826
C	188	0	0	16	41	245
D	205	0	4	0	10	219
E	0	0	0	0	0	0
Totals	1127	0	54	219	492	1892

From/To	A	B	C	D	E	Totals
A	0	0	3	0	20	24
B	45	0	3	6	0	55
C	8	0	0	0	0	8
D	9	1	0	0	1	11
E	0	0	0	0	0	0
Totals	61	1	6	6	22	97

From/To	A	B	C	D	E	Totals
A	0	0	2	1	5	9
B	6	0	10	3	1	20
C	12	0	0	0	1	13
D	3	0	0	0	1	4
E	0	0	0	0	0	0
Totals	22	0	12	4	9	46

From/To	A	B	C	D	E	Totals
A	1	0	89	52	352	494
B	363	0	41	40	11	455
C	18	0	0	2	3	24
D	107	1	9	0	3	120
E	0	0	0	0	0	0
Totals	489	1	139	94	369	1092

From/To	A	B	C	D	E	Totals
A	0	0	43	135	433	611
B	740	0	18	72	15	846
C	200	0	0	16	42	258
D	208	0	4	0	11	223
E	0	0	0	0	0	0
Totals	1148	0	66	223	501	1938

From/To	A	B	C	D	E	Average
A	0.0%	0.0%	3.6%	0.0%	5.8%	2%
B	12.5%	0.0%	7.9%	16.2%	0.0%	7%
C	41.2%	0.0%	0.0%	0.0%	0.0%	8%
D	8.1%	100.0%	0.0%	0.0%	33.3%	28%
E	0.0%	0.0%	0.0%	0.0%	0.0%	0%
Average	0.1	0.2	0.0	0.0	0.1	9%

From/To	A	B	C	D	E	Average
A	0.0%	0.0%	5.0%	0.8%	1.2%	1%
B	0.9%	0.0%	52.9%	4.5%	7.1%	13%
C	5.9%	0.0%	0.0%	0.0%	2.6%	2%
D	1.6%	0.0%	0.0%	0.0%	10.0%	2%
E	0.0%	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.1	0.0	0.0	4%

Junction 11 - A47 / B1108 Western Roundabout



Notes		
Arm	Link	Road Name
A	-	B1108 East
B	105	A47 South
C	98	B1108 West
D	97	A47 North

Growth Factor	AM	PM
All Vehicles	1.0777	1.0794

Surveyed Flows (2021)

AM Peak Traffic
Tuesday 16th November 2021: 06:30 - 07:30 AM

Vehicles					
From/To	A	B	C	D	Totals
A	0	0	160	105	265
B	149	0	95	5	249
C	242	0	0	51	293
D	0	0	0	0	0
Totals	391	0	255	161	807

HGVs					
From/To	A	B	C	D	Totals
A	0	0	9	4	13
B	7	0	3	0	10
C	7	0	0	0	7
D	0	0	0	0	0
Totals	14	0	12	4	30

Total					
From/To	A	B	C	D	Totals
A	0	0	169	109	278
B	156	0	98	5	259
C	249	0	0	51	300
D	0	0	0	0	0
Totals	405	0	267	0	837

%HGV					
From/To	A	B	C	D	Average
A	0.0%	0.0%	5.3%	3.7%	2%
B	4.5%	0.0%	3.1%	0.0%	2%
C	2.8%	0.0%	0.0%	0.0%	1%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	1%

PM Peak Traffic
Tuesday 16th November 2021: 17:25 - 18:25 PM

Vehicles					
From/To	A	B	C	D	Totals
A	0	0	278	248	526
B	234	0	234	3	471
C	292	0	2	33	327
D	0	0	0	1	1
Totals	526	0	514	285	1325

HGVs					
From/To	A	B	C	D	Totals
A	0	0	3	7	10
B	3	0	1	0	4
C	1	0	0	1	2
D	0	0	0	0	0
Totals	4	0	4	8	16

Totals					
From/To	A	B	C	D	Totals
A	0	0	281	255	536
B	237	0	235	3	475
C	293	0	2	34	329
D	0	0	0	1	1
Totals	530	0	518	0	1341

%HGV					
From/To	A	B	C	D	Average
A	0.0%	0.0%	1.1%	2.7%	1%
B	1.3%	0.0%	0.4%	0.0%	0%
C	0.3%	0.0%	0.0%	2.9%	1%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	1%

Forecast Flows (2025)

Growth Factored Vehicles					
From/To	A	B	C	D	Totals
A	0	0	172	113	286
B	161	0	102	5	268
C	261	0	0	55	316
D	0	0	0	0	0
Totals	421	0	275	0	870

Growth Factored HGVs					
From/To	A	B	C	D	Totals
A	0	0	10	4	14
B	8	0	3	0	11
C	8	0	0	0	8
D	0	0	0	0	0
Totals	15	0	13	0	32

Growth Factored Total					
From/To	A	B	C	D	Totals
A	0	0	182	117	300
B	168	0	106	5	279
C	268	0	0	55	323
D	0	0	0	0	0
Totals	436	0	288	0	902

%HGV					
From/To	A	B	C	D	Average
A	0.0%	0.0%	5.3%	3.7%	2%
B	4.5%	0.0%	3.1%	0.0%	2%
C	2.8%	0.0%	0.0%	0.0%	1%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	1%

Growth Factored Vehicles					
From/To	A	B	C	D	Totals
A	0	0	300	268	568
B	253	0	253	3	508
C	315	0	2	36	353
D	0	0	0	1	1
Totals	568	0	555	0	1430

Growth Factored HGVs					
From/To	A	B	C	D	Totals
A	0	0	3	8	11
B	3	0	1	0	4
C	1	0	0	1	2
D	0	0	0	0	0
Totals	4	0	4	0	17

Growth Factored Total					
From/To	A	B	C	D	Totals
A	0	0	303	275	579
B	256	0	254	3	513
C	316	0	2	37	355
D	0	0	0	1	1
Totals	572	0	559	0	1447

%HGV					
From/To	A	B	C	D	Average
A	0.0%	0.0%	1.1%	2.7%	1%
B	1.3%	0.0%	0.4%	0.0%	0%
C	0.3%	0.0%	0.0%	2.9%	1%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	1%

Junction 11 - A47 / B1108 Western Roundabout



Notes		
Arm	Link	Road Name
A	-	B1108 East
B	105	A47 South
C	98	B1108 West
D	97	A47 North

Growth Factor	AM	PM
All Vehicles	1.0777	1.0794

Construction Flows (SEP and DEP)

AM Peak Traffic

Vehicles					
From/To	A	B	C	D	Totals
A	0	0	7	0	7
B	0	0	78	0	78
C	0	0	0	0	0
D	0	0	0	0	0
Totals	0	0	85	0	85

HGVs					
From/To	A	B	C	D	Totals
A	0	0	2	0	2
B	0	0	4	0	4
C	4	0	0	2	5
D	0	0	0	0	0
Totals	4	0	5	2	11

Total					
From/To	A	B	C	D	Totals
A	0	0	9	0	9
B	0	0	82	0	82
C	4	0	0	2	5
D	0	0	0	0	0
Totals	4	0	91	2	96

%HGv					
From/To	A	B	C	D	Average
A	0.0%	0.0%	17.7%	0.0%	4%
B	0.0%	0.0%	4.8%	0.0%	1%
C	100.0%	0.0%	0.0%	100.0%	50%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	0.3	0.0	0.1	0.3	14%

PM Peak Traffic

Vehicles					
From/To	A	B	C	D	Totals
A	0	0	0	0	0
B	0	0	0	0	0
C	78	0	0	7	85
D	0	0	0	0	0
Totals	78	0	0	7	85

HGVs					
From/To	A	B	C	D	Totals
A	0	0	2	0	2
B	0	0	4	0	4
C	4	0	0	2	5
D	0	0	0	0	0
Totals	4	0	5	2	11

Total					
From/To	A	B	C	D	Totals
A	0	0	2	0	2
B	0	0	4	0	4
C	82	0	0	9	91
D	0	0	0	0	0
Totals	82	0	5	9	96

%HGv					
From/To	A	B	C	D	Average
A	0.0%	0.0%	100.0%	0.0%	25%
B	0.0%	0.0%	100.0%	0.0%	25%
C	4.8%	0.0%	0.0%	17.7%	6%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.5	0.0	14%

Forecast Flows + Construction Flows (SEP and DEP)

AM Peak Traffic

Vehicles					
From/To	A	B	C	E	Totals
A	0	0	180	113	293
B	161	0	180	5	346
C	261	0	0	55	316
D	0	0	0	0	0
Totals	421	0	360	174	955

HGVs					
From/To	A	B	C	E	Totals
A	0	0	11	4	16
B	8	0	7	0	15
C	11	0	0	2	13
D	0	0	0	0	0
Totals	19	0	18	6	43

Total					
From/To	A	B	C	E	Totals
A	0	0	191	117	309
B	168	0	187	5	361
C	272	0	0	57	329
D	0	0	0	0	0
Totals	440	0	378	179	998

%HGv					
From/To	A	B	C	D	Average
A	0.0%	0.0%	5.9%	3.7%	2%
B	4.5%	0.0%	3.8%	0.0%	2%
C	4.2%	0.0%	0.0%	2.8%	2%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	2%

PM Peak Traffic

Vehicles					
From/To	A	B	C	E	Totals
A	0	0	300	268	568
B	253	0	253	3	508
C	393	0	0	43	438
D	0	0	0	1	1
Totals	646	0	555	315	1515

HGVs					
From/To	A	B	C	E	Totals
A	0	0	5	8	12
B	3	0	5	0	8
C	5	0	0	3	8
D	0	0	0	0	0
Totals	8	0	10	10	28

Total					
From/To	A	B	C	E	Totals
A	0	0	305	275	580
B	256	0	258	3	517
C	398	0	2	46	446
D	0	0	0	1	1
Totals	654	0	565	325	1544

%HGv					
From/To	A	B	C	D	Average
A	0.0%	0.0%	1.6%	2.7%	1%
B	1.3%	0.0%	1.9%	0.0%	1%
C	1.2%	0.0%	0.0%	5.8%	2%
D	0.0%	0.0%	0.0%	0.0%	0%
Average	0.0	0.0	0.0	0.0	1%

Appendix 2 Amended Annex 32 Modelling Outputs

<h1>Junctions 9</h1>
<h2>PICADY 9 - Priority Intersection Module</h2>
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
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Filename: Junction 1 - Existing Layout - Construction Peaks - Capped.j9

Path: C:\Users\921707\Box\PB8164 Equinor DOW SS Ext\PB8164 Team\PB8164 Technical Data\E08
Transport\TD\Calcs\Modelling\J1

Report generation date: 14/04/2023 10:42:10

-
- »Existing Layout - 2021 - Construction Peak - Baseline, AM
 - »Existing Layout - 2021 - Construction Peak - Baseline , PM
 - »Existing Layout - 2025 - Forecast Background Flows, AM
 - »Existing Layout - 2025 - Forecast Background Flows, PM
 - »Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation (Capped), AM
 - »Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation (Capped), PM
 - »Existing Layout - 2025 - Forecast Background Flows + SEP and DEP Together (Capped), AM
 - »Existing Layout - 2025 - Forecast Background Flows + SEP and DEP Together (Capped), PM

Summary of junction performance

	AM								PM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Existing Layout - 2021 - Construction Peak - Baseline																
Stream B-C	0.0	0.5	6.87	0.04	A	2.82	A	-2 % [Stream D-BC]	0.1	0.5	7.96	0.09	A	2.12	A	4 % [Stream D-BC]
Stream B-AD	0.1	0.5	20.59	0.10	C				0.1	0.5	20.33	0.06	C			
Stream A-BCD	0.4	1.3	11.50	0.27	B				0.3	1.3	8.30	0.22	A			
Stream D-A	0.7	3.1	15.77	0.40	C				0.4	1.1	9.30	0.26	A			
Stream D-BC	0.4	1.5	38.86	0.28	E				0.4	1.5	29.86	0.30	D			
Stream C-ABD	0.1	0.5	7.06	0.10	A				0.1	0.5	7.45	0.06	A			
Existing Layout - 2025 - Forecast Background Flows																
Stream B-C	0.1	0.5	7.18	0.05	A	3.69	A	-9 % [Stream D-BC]	0.1	0.5	8.52	0.11	A	2.58	A	-4 % [Stream D-BC]
Stream B-AD	0.1	0.7	25.64	0.12	D				0.1	0.5	25.04	0.08	D			
Stream A-BCD	0.4	1.9	12.89	0.31	B				0.3	1.4	8.92	0.25	A			
Stream D-A	0.9	4.3	20.01	0.48	C				0.4	1.7	10.53	0.30	B			
Stream D-BC	0.7	2.6	66.16	0.42	F				0.7	2.8	43.19	0.40	E			
Stream C-ABD	0.1	0.5	7.39	0.12	A				0.1	0.5	7.88	0.07	A			
Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation (Capped)																
Stream B-C	0.1	0.5	7.41	0.05	A	25.09	D	-18 % [Stream D-BC]	0.1	0.5	9.60	0.12	A	16.72	C	-16 % [Stream D-BC]
Stream B-AD	0.2	0.9	33.80	0.16	D				0.1	0.7	36.18	0.12	E			
Stream A-BCD	0.8	3.7	17.28	0.44	C				0.4	1.7	9.70	0.30	A			
Stream D-A	13.0	33.3	228.81	1.11	F				7.1	19.0	121.30	1.01	F			
Stream D-BC	4.1	13.0	351.62	1.00	F				4.8	17.9	187.89	0.92	F			
Stream C-ABD	0.1	0.5	7.58	0.12	A				0.1	0.5	8.77	0.08	A			
Existing Layout - 2025 - Forecast Background Flows + SEP and DEP Together (Capped)																
Stream B-C	0.1	0.5	7.51	0.05	A	77.61	F	-21 % [Stream D-BC]	0.1	0.5	10.19	0.13	B	41.98	E	-20 % [Stream D-BC]
Stream B-AD	0.2	1.0	38.27	0.17	E				0.2	0.9	44.12	0.14	E			
Stream A-BCD	1.0	4.8	20.61	0.52	C				0.5	2.0	10.13	0.32	B			
Stream D-A	45.5	71.5	684.05	1.86	F				22.0	46.2	329.58	1.21	F			
Stream D-BC	10.0	22.7	1401.34	1.77	F				12.4	28.5	380.40	1.18	F			
Stream C-ABD	0.1	0.5	7.65	0.12	A				0.1	0.5	9.22	0.08	A			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

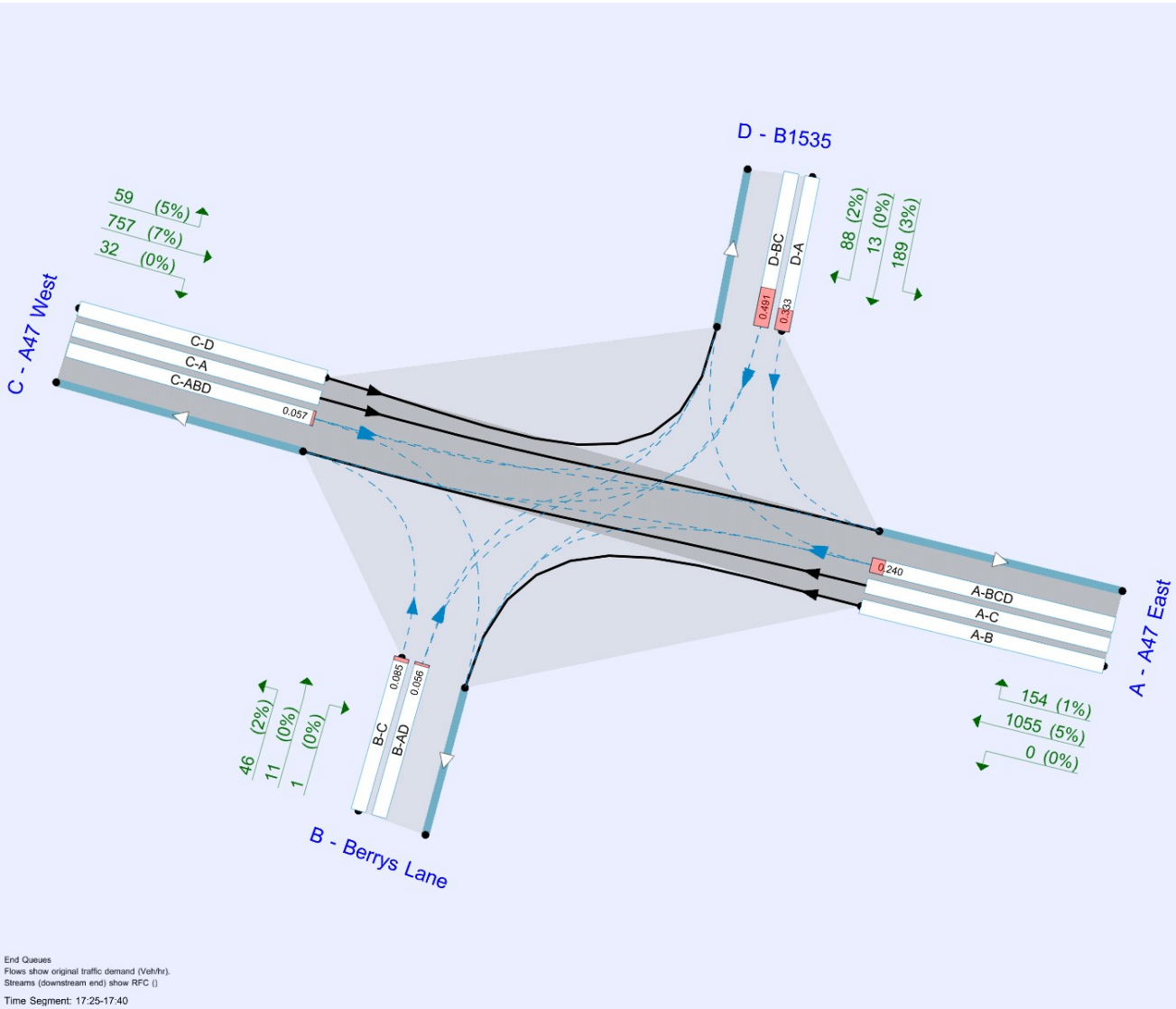
File summary

File Description

Title	Junction 1
Location	A47 / Berry's Lane / B1535
Site number	1
Date	01/03/2022
Version	1
Status	Existing Layout
Identifier	
Client	Equinor
Jobnumber	PB8164
Enumerator	CORPORATEROOT304111
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



End Queues
 Flows show original traffic demand (Veh/hr).
 Streams (downstream end) show RFC ()
 Time Segment: 17:25-17:40

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓		✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021 - Construction Peak - Baseline	AM	ONE HOUR	06:15	07:45	15	✓	✓
D2	2021 - Construction Peak - Baseline	PM	ONE HOUR	17:10	18:40	15	✓	✓
D3	2025 - Forecast Background Flows	AM	ONE HOUR	06:15	07:45	15	✓	✓
D4	2025 - Forecast Background Flows	PM	ONE HOUR	17:10	18:40	15	✓	✓
D7	2025 - Forecast Background Flows + SEP or DEP in Isolation (Capped)	AM	ONE HOUR	06:15	07:45	15	✓	✓
D8	2025 - Forecast Background Flows + SEP or DEP in Isolation (Capped)	PM	ONE HOUR	17:10	18:40	15	✓	✓
D11	2025 - Forecast Background Flows + SEP and DEP Together (Capped)	AM	ONE HOUR	06:15	07:45	15	✓	✓
D12	2025 - Forecast Background Flows + SEP and DEP Together (Capped)	PM	ONE HOUR	17:10	18:40	15	✓	✓

Analysis Set Details

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

Existing Layout - 2021 - Construction Peak - Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D1 - 2021 - Construction Peak - Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A47 / Berry Lane / Wood Lane	Right-Left Stagger	Two-way		2.82	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Daylight	-2	Stream D-BC

Arms

Arms

Arm	Name	Description	Arm type
A	A47 East		Major
B	Berrys Lane		Minor
C	A47 West		Major
D	B1535		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A - A47 East	7.35		✓	3.53	250.0	✓	13.07
C - A47 West	8.05		✓	3.50	250.0	✓	13.60

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 - Berrys Lane	One lane plus flare	10.00	10.00	8.13	4.97	4.19	✓	3.00	81	120
D - B1535	One lane plus flare	10.00	10.00	7.95	6.98	5.42		5.00	70	140

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-B	Slope for D-C
1	A-D	823	-	-	-	0.300	0.300	0.300	-	0.300	-	-
1	B-AD	617	0.102	0.259	-	-	-	0.163	0.369	0.163	0.102	0.259
1	B-C	794	0.111	0.280	-	-	-	-	-	-	0.111	0.280
1	C-B	820	0.290	0.290	-	-	-	-	-	-	0.290	0.290
1	D-A	848	-	-	-	0.309	0.122	0.309	-	0.122	-	-
1	D-BC	580	0.158	0.158	0.359	0.251	0.099	0.251	-	0.099	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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)	Results for central hour only	Run automatically
D1	2021 - Construction Peak - Baseline	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 East		ONE HOUR	✓	769	100.000
B - Berrys Lane		ONE HOUR	✓	39	100.000
C - A47 West		ONE HOUR	✓	1003	100.000
D - B1535		ONE HOUR	✓	169	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A47 East	B - Berrys Lane	C - A47 West	D - B1535
From	A - A47 East	0	2	660	107
	B - Berrys Lane	1	0	22	16
	C - A47 West	883	54	0	66
	D - B1535	137	7	25	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A47 East	B - Berrys Lane	C - A47 West	D - B1535
From	A - A47 East	0	0	9	9
	B - Berrys Lane	0	0	0	0
	C - A47 West	10	2	0	12
	D - B1535	23	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.04	6.87	0.0	0.5	A	22	22
B-AD	0.10	20.59	0.1	0.5	C	17	17
A-BCD	0.27	11.50	0.4	1.3	B	107	107
A-B						2	2
A-C						660	660
D-A	0.40	15.77	0.7	3.1	C	137	137
D-BC	0.28	38.86	0.4	1.5	E	32	32
C-ABD	0.10	7.06	0.1	0.5	A	54	54
C-D						66	66
C-A						883	883

Main Results for each time segment

06:30 - 06:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	20	5	597	0.033	20	0.0	0.0	6.239	A
B-AD	15	4	271	0.056	15	0.0	0.1	14.048	B
A-BCD	96	24	490	0.196	96	0.2	0.2	9.132	A
A-B	2	0.45			2				
A-C	593	148			593				
D-A	123	31	444	0.278	123	0.3	0.4	11.196	B
D-BC	29	7	211	0.136	29	0.1	0.2	19.705	C
C-ABD	49	12	613	0.079	48	0.1	0.1	6.379	A
C-D	59	15			59				
C-A	794	198			794				

06:45 - 07:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	24	6	549	0.044	24	0.0	0.0	6.857	A
B-AD	19	5	194	0.097	19	0.1	0.1	20.532	C
A-BCD	118	29	431	0.273	117	0.2	0.4	11.462	B
A-B	2	0.55			2				
A-C	727	182			727				
D-A	151	38	380	0.397	150	0.4	0.6	15.580	C
D-BC	35	9	128	0.275	34	0.2	0.4	38.173	E
C-ABD	59	15	569	0.104	59	0.1	0.1	7.054	A
C-D	73	18			73				
C-A	972	243			972				

07:00 - 07:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	24	6	549	0.044	24	0.0	0.0	6.865	A
B-AD	19	5	194	0.097	19	0.1	0.1	20.586	C
ABCD	118	29	431	0.273	118	0.4	0.4	11.502	B
AB	2	0.55			2				
AC	727	182			727				
D-A	151	38	379	0.398	151	0.6	0.7	15.771	C
D-BC	35	9	128	0.276	35	0.4	0.4	38.861	E
C-ABD	59	15	569	0.104	59	0.1	0.1	7.060	A
C-D	73	18			73				
C-A	972	243			972				

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	20	5	596	0.033	20	0.0	0.0	6.250	A
B-AD	15	4	271	0.056	15	0.1	0.1	14.079	B
ABCD	96	24	490	0.196	97	0.4	0.2	9.168	A
AB	2	0.45			2				
AC	593	148			593				
D-A	123	31	443	0.278	124	0.7	0.4	11.329	B
D-BC	29	7	211	0.137	30	0.4	0.2	19.961	C
C-ABD	49	12	612	0.079	49	0.1	0.1	6.388	A
C-D	59	15			59				
C-A	794	198			794				

Queue Variation Results for each time segment
06:30 - 06:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.03	0.03	0.25	0.45	0.48			N/A	N/A
B-AD	0.06	0.03	0.25	0.45	0.48			N/A	N/A
ABCD	0.24	0.00	0.00	0.24	0.24			N/A	N/A
D-A	0.38	0.00	0.00	0.38	0.38			N/A	N/A
D-BC	0.15	0.00	0.00	0.15	0.15			N/A	N/A
C-ABD	0.09	0.03	0.26	0.47	0.49			N/A	N/A

06:45 - 07:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.05	0.03	0.25	0.46	0.48			N/A	N/A
B-AD	0.10	0.03	0.26	0.47	0.50			N/A	N/A
ABCD	0.37	0.03	0.26	0.46	0.49			N/A	N/A
D-A	0.64	0.03	0.26	0.64	0.64			N/A	N/A
D-BC	0.36	0.03	0.27	0.48	1.23			N/A	N/A
C-ABD	0.12	0.03	0.26	0.47	0.49			N/A	N/A

07:00 - 07:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.05	0.00	0.00	0.05	0.05			N/A	N/A
B-AD	0.11	0.03	0.25	0.45	0.48			N/A	N/A
A-BCD	0.37	0.03	0.32	1.25	1.31			N/A	N/A
D-A	0.65	0.03	0.30	1.50	3.10			N/A	N/A
D-BC	0.37	0.03	0.33	1.22	1.47			N/A	N/A
C-ABD	0.12	0.03	0.25	0.45	0.48			N/A	N/A

07:15 - 07:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.03	0.00	0.00	0.03	0.03			N/A	N/A
B-AD	0.06	0.00	0.00	0.06	0.06			N/A	N/A
A-BCD	0.25	0.00	0.00	0.25	0.25			N/A	N/A
D-A	0.39	0.03	0.28	0.65	1.07			N/A	N/A
D-BC	0.16	0.00	0.00	0.16	0.16			N/A	N/A
C-ABD	0.09	0.00	0.00	0.09	0.09			N/A	N/A

Existing Layout - 2021 - Construction Peak - Baseline , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2021 - Construction Peak - Baseline , PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A47 / Berry Lane / Wood Lane	Right-Left Stagger	Two-way		2.12	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Daylight	4	Stream D-BC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D2	2021 - Construction Peak - Baseline	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 East		ONE HOUR	✓	983	100.000
B - Berrys Lane		ONE HOUR	✓	54	100.000
C - A47 West		ONE HOUR	✓	770	100.000
D - B1535		ONE HOUR	✓	173	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A47 East	B - Berrys Lane	C - A47 West	D - B1535
From	A - A47 East	0	0	870	113
	B - Berrys Lane	1	0	43	10
	C - A47 West	687	30	0	53
	D - B1535	126	12	35	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A47 East	B - Berrys Lane	C - A47 West	D - B1535
From	A - A47 East	0	0	4	1
	B - Berrys Lane	0	0	2	0
	C - A47 West	5	0	0	2
	D - B1535	3	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.09	7.96	0.1	0.5	A	43	43
B-AD	0.06	20.33	0.1	0.5	C	11	11
A-BCD	0.22	8.30	0.3	1.3	A	113	113
A-B						0	0
A-C						870	870
D-A	0.26	9.30	0.4	1.1	A	126	126
D-BC	0.30	29.86	0.4	1.5	D	47	47
C-ABD	0.06	7.45	0.1	0.5	A	30	30
C-D						53	53
C-A						687	687

Main Results for each time segment

17:25 - 17:40

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	39	10	557	0.069	39	0.1	0.1	6.947	A
B-AD	10	2	264	0.038	10	0.0	0.0	14.182	B
A-BCD	102	25	606	0.168	101	0.2	0.2	7.141	A
A-B	0	0			0				
A-C	782	196			782				
D-A	113	28	588	0.193	113	0.2	0.2	7.571	A
D-BC	42	11	248	0.170	42	0.1	0.2	17.428	C
C-ABD	27	7	572	0.047	27	0.0	0.0	6.600	A
C-D	48	12			48				
C-A	618	154			618				

17:40 - 17:55

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	47	12	500	0.095	47	0.1	0.1	7.955	A
B-AD	12	3	189	0.064	12	0.0	0.1	20.286	C
A-BCD	124	31	558	0.223	124	0.2	0.3	8.276	A
A-B	0	0			0				
A-C	958	239			958				
D-A	139	35	526	0.264	138	0.2	0.4	9.262	A
D-BC	52	13	172	0.300	51	0.2	0.4	29.461	D
C-ABD	33	8	517	0.064	33	0.0	0.1	7.445	A
C-D	58	15			58				
C-A	756	189			756				

17:55 - 18:10

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	47	12	499	0.095	47	0.1	0.1	7.965	A
B-AD	12	3	189	0.064	12	0.1	0.1	20.333	C
A-BCD	124	31	558	0.223	124	0.3	0.3	8.296	A
A-B	0	0			0				
A-C	958	239			958				
D-A	139	35	526	0.264	139	0.4	0.4	9.304	A
D-BC	52	13	172	0.301	52	0.4	0.4	29.860	D
C-ABD	33	8	516	0.064	33	0.1	0.1	7.448	A
C-D	58	15			58				
C-A	756	189			756				

18:10 - 18:25

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	39	10	556	0.069	39	0.1	0.1	6.957	A
B-AD	10	2	263	0.038	10	0.1	0.0	14.211	B
A-BCD	102	25	605	0.168	102	0.3	0.2	7.152	A
A-B	0	0			0				
A-C	782	196			782				
D-A	113	28	587	0.193	114	0.4	0.2	7.607	A
D-BC	42	11	248	0.170	43	0.4	0.2	17.625	C
C-ABD	27	7	572	0.047	27	0.1	0.0	6.606	A
C-D	48	12			48				
C-A	618	154			618				

Queue Variation Results for each time segment
17:25 - 17:40

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.07	0.03	0.25	0.46	0.48			N/A	N/A
B-AD	0.04	0.03	0.25	0.45	0.48			N/A	N/A
A-BCD	0.20	0.00	0.00	0.20	0.20			N/A	N/A
D-A	0.24	0.00	0.00	0.24	0.24			N/A	N/A
D-BC	0.20	0.00	0.00	0.20	0.20			N/A	N/A
C-ABD	0.05	0.03	0.25	0.45	0.48			N/A	N/A

17:40 - 17:55

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.10	0.03	0.26	0.47	0.49			N/A	N/A
B-AD	0.07	0.03	0.26	0.47	0.49			N/A	N/A
A-BCD	0.28	0.03	0.26	0.46	0.49			N/A	N/A
D-A	0.35	0.03	0.26	0.46	0.49			N/A	N/A
D-BC	0.41	0.03	0.27	0.48	0.90			N/A	N/A
C-ABD	0.07	0.03	0.26	0.47	0.49			N/A	N/A

17:55 - 18:10

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.10	0.03	0.25	0.45	0.48			N/A	N/A
B-AD	0.07	0.03	0.25	0.45	0.48			N/A	N/A
A-BCD	0.29	0.03	0.31	1.00	1.29			N/A	N/A
D-A	0.36	0.03	0.32	1.10	1.10			N/A	N/A
D-BC	0.42	0.03	0.33	1.34	1.48			N/A	N/A
C-ABD	0.07	0.00	0.00	0.07	0.07			N/A	N/A

18:10 - 18:25

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.08	0.00	0.00	0.08	0.08			N/A	N/A
B-AD	0.04	0.00	0.00	0.04	0.04			N/A	N/A
A-BCD	0.20	0.00	0.00	0.20	0.20			N/A	N/A
D-A	0.24	0.00	0.00	0.24	0.24			N/A	N/A
D-BC	0.21	0.00	0.00	0.21	0.21			N/A	N/A
C-ABD	0.05	0.00	0.00	0.05	0.05			N/A	N/A

Existing Layout - 2025 - Forecast Background Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D3 - 2025 - Forecast Background Flows, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A47 / Berry Lane / Wood Lane	Right-Left Stagger	Two-way		3.69	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Daylight	-9	Stream D-BC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D3	2025 - Forecast Background Flows	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 East		ONE HOUR	✓	828	100.000
B - Berrys Lane		ONE HOUR	✓	42	100.000
C - A47 West		ONE HOUR	✓	1081	100.000
D - B1535		ONE HOUR	✓	183	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A47 East	B - Berrys Lane	C - A47 West	D - B1535
From	A - A47 East	0	2	711	115
	B - Berrys Lane	1	0	24	17
	C - A47 West	952	58	0	71
	D - B1535	148	8	27	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A47 East	B - Berrys Lane	C - A47 West	D - B1535
From	A - A47 East	0	0	9	9
	B - Berrys Lane	0	0	0	0
	C - A47 West	10	2	0	12
	D - B1535	23	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.05	7.18	0.1	0.5	A	24	24
B-AD	0.12	25.64	0.1	0.7	D	18	18
A-BCD	0.31	12.89	0.4	1.9	B	115	115
A-B						2	2
A-C						711	711
D-A	0.48	20.01	0.9	4.3	C	148	148
D-BC	0.42	66.16	0.7	2.6	F	35	35
C-ABD	0.12	7.39	0.1	0.5	A	58	58
C-D						71	71
C-A						952	952

Main Results for each time segment

06:30 - 06:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	22	5	582	0.037	22	0.0	0.0	6.422	A
B-AD	16	4	244	0.066	16	0.0	0.1	15.787	C
A-BCD	103	26	469	0.220	103	0.2	0.3	9.817	A
A-B	2	0.45			2				
A-C	639	160			639				
D-A	133	33	423	0.315	132	0.3	0.5	12.387	B
D-BC	31	8	182	0.172	31	0.1	0.2	23.734	C
C-ABD	52	13	598	0.087	52	0.1	0.1	6.596	A
C-D	64	16			64				
C-A	856	214			856				

06:45 - 07:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	26	7	529	0.050	26	0.0	0.1	7.162	A
B-AD	20	5	160	0.123	20	0.1	0.1	25.496	D
A-BCD	127	32	406	0.312	126	0.3	0.4	12.833	B
A-B	2	0.55			2				
A-C	783	196			783				
D-A	163	41	345	0.473	161	0.5	0.9	19.440	C
D-BC	39	10	93	0.416	37	0.2	0.6	62.615	F
C-ABD	64	16	551	0.116	64	0.1	0.1	7.384	A
C-D	78	20			78				
C-A	1048	262			1048				

07:00 - 07:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	26	7	528	0.050	26	0.1	0.1	7.177	A
B-AD	20	5	160	0.124	20	0.1	0.1	25.642	D
A-BCD	127	32	406	0.312	127	0.4	0.4	12.894	B
A-B	2	0.55			2				
A-C	783	196			783				
D-A	163	41	342	0.476	163	0.9	0.9	20.012	C
D-BC	39	10	92	0.417	38	0.6	0.7	66.160	F
C-ABD	64	16	551	0.116	64	0.1	0.1	7.394	A
C-D	78	20			78				
C-A	1048	262			1048				

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	22	5	581	0.037	22	0.1	0.0	6.443	A
B-AD	16	4	244	0.066	16	0.1	0.1	15.854	C
A-BCD	103	26	469	0.220	104	0.4	0.3	9.872	A
A-B	2	0.45			2				
A-C	639	160			639				
D-A	133	33	421	0.316	135	0.9	0.5	12.652	B
D-BC	31	8	182	0.173	33	0.7	0.2	24.457	C
C-ABD	52	13	597	0.087	52	0.1	0.1	6.607	A
C-D	64	16			64				
C-A	856	214			856				

Queue Variation Results for each time segment
06:30 - 06:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.04	0.03	0.25	0.45	0.48			N/A	N/A
B-AD	0.07	0.03	0.25	0.45	0.48			N/A	N/A
A-BCD	0.28	0.00	0.00	0.28	0.28			N/A	N/A
D-A	0.45	0.00	0.00	0.45	0.45			N/A	N/A
D-BC	0.20	0.00	0.00	0.20	0.20			N/A	N/A
C-ABD	0.09	0.03	0.25	0.45	0.48			N/A	N/A

06:45 - 07:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.05	0.03	0.26	0.46	0.49			N/A	N/A
B-AD	0.14	0.03	0.26	0.48	0.67			N/A	N/A
A-BCD	0.44	0.03	0.26	0.46	0.49			N/A	N/A
D-A	0.86	0.03	0.27	0.86	1.26			N/A	N/A
D-BC	0.64	0.03	0.28	0.77	2.45			N/A	N/A
C-ABD	0.13	0.03	0.26	0.47	0.49			N/A	N/A

07:00 - 07:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.05	0.00	0.00	0.05	0.05			N/A	N/A
B-AD	0.14	0.03	0.25	0.45	0.48			N/A	N/A
A-BCD	0.45	0.03	0.31	1.38	1.85			N/A	N/A
D-A	0.89	0.03	0.30	1.27	4.30			N/A	N/A
D-BC	0.67	0.04	0.36	1.55	2.62			N/A	N/A
C-ABD	0.13	0.03	0.25	0.45	0.48			N/A	N/A

07:15 - 07:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.04	0.00	0.00	0.04	0.04			N/A	N/A
B-AD	0.07	0.00	0.00	0.07	0.07			N/A	N/A
A-BCD	0.29	0.00	0.00	0.29	0.29			N/A	N/A
D-A	0.47	0.04	0.41	1.24	1.37			N/A	N/A
D-BC	0.22	0.03	0.26	0.46	0.49			N/A	N/A
C-ABD	0.10	0.00	0.00	0.10	0.10			N/A	N/A

Existing Layout - 2025 - Forecast Background Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D4 - 2025 - Forecast Background Flows, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A47 / Berry Lane / Wood Lane	Right-Left Stagger	Two-way		2.58	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Daylight	-4	Stream D-BC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D4	2025 - Forecast Background Flows	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 East		ONE HOUR	✓	1061	100.000
B - Berrys Lane		ONE HOUR	✓	58	100.000
C - A47 West		ONE HOUR	✓	831	100.000
D - B1535		ONE HOUR	✓	187	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A47 East	B - Berrys Lane	C - A47 West	D - B1535
From	A - A47 East	0	0	939	122
	B - Berrys Lane	1	0	46	11
	C - A47 West	742	32	0	57
	D - B1535	136	13	38	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A47 East	B - Berrys Lane	C - A47 West	D - B1535
From	A - A47 East	0	0	4	1
	B - Berrys Lane	0	0	2	0
	C - A47 West	5	0	0	2
	D - B1535	3	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.11	8.52	0.1	0.5	A	46	46
B-AD	0.08	25.04	0.1	0.5	D	12	12
A-BCD	0.25	8.92	0.3	1.4	A	122	122
A-B						0	0
A-C						939	939
D-A	0.30	10.53	0.4	1.7	B	136	136
D-BC	0.40	43.19	0.7	2.8	E	51	51
C-ABD	0.07	7.88	0.1	0.5	A	32	32
C-D						57	57
C-A						742	742

Main Results for each time segment

17:25 - 17:40

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	41	10	536	0.077	41	0.1	0.1	7.270	A
B-AD	11	3	238	0.045	11	0.0	0.0	15.866	C
A-BCD	110	27	589	0.186	109	0.2	0.2	7.507	A
A-B	0	0			0				
A-C	844	211			844				
D-A	122	31	567	0.215	122	0.2	0.3	8.077	A
D-BC	46	11	221	0.207	45	0.2	0.3	20.421	C
C-ABD	29	7	553	0.052	29	0.0	0.1	6.872	A
C-D	51	13			51				
C-A	667	167			667				

17:40 - 17:55

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	51	13	474	0.107	51	0.1	0.1	8.501	A
B-AD	13	3	157	0.084	13	0.0	0.1	24.923	C
A-BCD	134	34	538	0.250	134	0.2	0.3	8.904	A
A-B	0	0			0				
A-C	1034	258			1034				
D-A	150	37	493	0.303	149	0.3	0.4	10.435	B
D-BC	56	14	139	0.403	55	0.3	0.6	41.839	E
C-ABD	35	9	492	0.072	35	0.1	0.1	7.875	A
C-D	63	16			63				
C-A	817	204			817				

17:55 - 18:10

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	51	13	473	0.107	51	0.1	0.1	8.517	A
B-AD	13	3	157	0.084	13	0.1	0.1	25.042	D
A-BCD	134	34	538	0.250	134	0.3	0.3	8.922	A
A-B	0	0			0				
A-C	1034	258			1034				
D-A	150	37	492	0.305	150	0.4	0.4	10.526	B
D-BC	56	14	139	0.403	56	0.6	0.7	43.193	E
C-ABD	35	9	492	0.072	35	0.1	0.1	7.883	A
C-D	63	16			63				
C-A	817	204			817				

18:10 - 18:25

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	41	10	536	0.077	41	0.1	0.1	7.288	A
B-AD	11	3	237	0.045	11	0.1	0.0	15.927	C
A-BCD	110	27	589	0.186	110	0.3	0.2	7.526	A
A-B	0	0			0				
A-C	844	211			844				
D-A	122	31	566	0.216	123	0.4	0.3	8.141	A
D-BC	46	11	221	0.207	47	0.7	0.3	20.875	C
C-ABD	29	7	552	0.052	29	0.1	0.1	6.881	A
C-D	51	13			51				
C-A	667	167			667				

Queue Variation Results for each time segment
17:25 - 17:40

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.08	0.03	0.26	0.46	0.49			N/A	N/A
B-AD	0.05	0.03	0.25	0.45	0.48			N/A	N/A
A-BCD	0.23	0.00	0.00	0.23	0.23			N/A	N/A
D-A	0.27	0.00	0.00	0.27	0.27			N/A	N/A
D-BC	0.25	0.00	0.00	0.25	0.25			N/A	N/A
C-ABD	0.05	0.03	0.25	0.45	0.48			N/A	N/A

17:40 - 17:55

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.12	0.03	0.26	0.47	0.49			N/A	N/A
B-AD	0.09	0.03	0.26	0.47	0.50			N/A	N/A
A-BCD	0.33	0.03	0.26	0.46	0.49			N/A	N/A
D-A	0.43	0.03	0.26	0.46	0.49			N/A	N/A
D-BC	0.63	0.03	0.27	0.63	1.64			N/A	N/A
C-ABD	0.08	0.03	0.26	0.47	0.49			N/A	N/A

17:55 - 18:10

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.12	0.03	0.25	0.45	0.48			N/A	N/A
B-AD	0.09	0.03	0.25	0.45	0.48			N/A	N/A
A-BCD	0.33	0.03	0.32	1.15	1.45			N/A	N/A
D-A	0.43	0.03	0.32	1.36	1.75			N/A	N/A
D-BC	0.65	0.03	0.34	1.49	2.78			N/A	N/A
C-ABD	0.08	0.00	0.00	0.08	0.08			N/A	N/A

18:10 - 18:25

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.08	0.00	0.00	0.08	0.08			N/A	N/A
B-AD	0.05	0.00	0.00	0.05	0.05			N/A	N/A
A-BCD	0.23	0.00	0.00	0.23	0.23			N/A	N/A
D-A	0.28	0.00	0.00	0.28	0.28			N/A	N/A
D-BC	0.27	0.03	0.26	0.47	0.49			N/A	N/A
C-ABD	0.06	0.00	0.00	0.06	0.06			N/A	N/A

Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation (Capped), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D7 - 2025 - Forecast Background Flows + SEP or DEP in Isolation (Capped), AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A47 / Berry Lane / Wood Lane	Right-Left Stagger	Two-way		25.09	D

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Daylight	-18	Stream D-BC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D7	2025 - Forecast Background Flows + SEP or DEP in Isolation (Capped)	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 East		ONE HOUR	✓	876	100.000
B - Berrys Lane		ONE HOUR	✓	42	100.000
C - A47 West		ONE HOUR	✓	1198	100.000
D - B1535		ONE HOUR	✓	207	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A47 East	B - Berrys Lane	C - A47 West	D - B1535
From	A - A47 East	0	2	724	150
	B - Berrys Lane	1	0	24	17
	C - A47 West	1032	58	0	108
	D - B1535	170	8	29	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A47 East	B - Berrys Lane	C - A47 West	D - B1535
From	A - A47 East	0	0	11	7
	B - Berrys Lane	0	0	0	0
	C - A47 West	11	2	0	10
	D - B1535	20	0	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.05	7.41	0.1	0.5	A	24	24
B-AD	0.16	33.80	0.2	0.9	D	18	18
A-BCD	0.44	17.28	0.8	3.7	C	150	150
A-B						2	2
A-C						724	724
D-A	1.11	228.81	13.0	33.3	F	170	170
D-BC	1.00	351.62	4.1	13.0	F	37	37
C-ABD	0.12	7.58	0.1	0.5	A	58	58
C-D						108	108
C-A						1032	1032

Main Results for each time segment

06:30 - 06:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	22	5	573	0.038	22	0.0	0.0	6.522	A
B-AD	16	4	218	0.074	16	0.0	0.1	17.819	C
A-BCD	135	34	446	0.303	134	0.3	0.4	11.540	B
A-B	2	0.45			2				
A-C	651	163			651				
D-A	153	38	402	0.380	152	0.4	0.6	14.353	B
D-BC	33	8	136	0.244	33	0.2	0.3	34.467	D
C-ABD	52	13	590	0.088	52	0.1	0.1	6.689	A
C-D	97	24			97				
C-A	928	232			928				

06:45 - 07:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	26	7	516	0.051	26	0.0	0.1	7.355	A
B-AD	20	5	129	0.154	19	0.1	0.2	32.877	D
A-BCD	165	41	373	0.442	164	0.4	0.8	17.066	C
A-B	2	0.55			2				
A-C	797	199			797				
D-A	187	47	183	1.022	162	0.6	6.9	117.906	F
D-BC	41	10	41	1.005	31	0.3	2.8	267.247	F
C-ABD	64	16	542	0.118	64	0.1	0.1	7.529	A
C-D	119	30			119				
C-A	1136	284			1136				

07:00 - 07:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	26	7	512	0.052	26	0.1	0.1	7.414	A
B-AD	20	5	126	0.157	20	0.2	0.2	33.800	D
A-BCD	165	41	373	0.443	165	0.8	0.8	17.285	C
A-B	2	0.55			2				
A-C	797	199			797				
D-A	187	47	168	1.111	163	6.9	13.0	228.813	F
D-BC	41	10	41	1.000	36	2.8	4.1	351.621	F
C-ABD	64	16	539	0.119	64	0.1	0.1	7.579	A
C-D	119	30			119				
C-A	1136	284			1136				

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	22	5	568	0.038	22	0.1	0.0	6.593	A
B-AD	16	4	215	0.075	17	0.2	0.1	18.212	C
A-BCD	135	34	446	0.303	136	0.8	0.4	11.689	B
A-B	2	0.45			2				
A-C	651	163			651				
D-A	153	38	388	0.394	202	13.0	0.7	24.872	C
D-BC	33	8	135	0.247	48	4.1	0.3	47.906	E
C-ABD	52	13	586	0.089	52	0.1	0.1	6.752	A
C-D	97	24			97				
C-A	928	232			928				

Queue Variation Results for each time segment
06:30 - 06:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.04	0.03	0.25	0.45	0.48			N/A	N/A
B-AD	0.08	0.00	0.00	0.08	0.08			N/A	N/A
A-BCD	0.43	0.00	0.00	0.43	0.43			N/A	N/A
D-A	0.60	0.04	0.36	1.30	2.13			N/A	N/A
D-BC	0.31	0.03	0.31	1.01	1.28			N/A	N/A
C-ABD	0.10	0.03	0.25	0.45	0.48			N/A	N/A

06:45 - 07:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.05	0.03	0.26	0.46	0.49			N/A	N/A
B-AD	0.17	0.03	0.27	0.48	0.89			N/A	N/A
A-BCD	0.77	0.03	0.26	0.77	0.77			N/A	N/A
D-A	6.92	0.36	4.31	15.45	20.24			N/A	N/A
D-BC	2.81	0.11	1.24	6.48	8.84			N/A	N/A
C-ABD	0.13	0.03	0.26	0.47	0.49			N/A	N/A

07:00 - 07:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.05	0.00	0.00	0.05	0.05			N/A	N/A
B-AD	0.18	0.03	0.25	0.46	0.48			N/A	N/A
A-BCD	0.78	0.03	0.30	1.06	3.75			N/A	N/A
D-A	13.02	1.06	9.81	26.57	33.32			N/A	N/A
D-BC	4.10	0.15	2.02	9.58	12.98			N/A	N/A
C-ABD	0.13	0.03	0.25	0.45	0.48			N/A	N/A

07:15 - 07:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.04	0.00	0.00	0.04	0.04			N/A	N/A
B-AD	0.08	0.00	0.00	0.08	0.08			N/A	N/A
A-BCD	0.44	0.04	0.36	1.18	1.34			N/A	N/A
D-A	0.67	0.03	0.29	1.26	3.00			N/A	N/A
D-BC	0.35	0.03	0.28	0.50	1.20			N/A	N/A
C-ABD	0.10	0.00	0.00	0.10	0.10			N/A	N/A

Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation (Capped), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D8 - 2025 - Forecast Background Flows + SEP or DEP in Isolation (Capped), PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A47 / Berry Lane / Wood Lane	Right-Left Stagger	Two-way		16.72	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Daylight	-16	Stream D-BC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D8	2025 - Forecast Background Flows + SEP or DEP in Isolation (Capped)	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 East		ONE HOUR	✓	1164	100.000
B - Berrys Lane		ONE HOUR	✓	58	100.000
C - A47 West		ONE HOUR	✓	845	100.000
D - B1535		ONE HOUR	✓	259	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A47 East	B - Berrys Lane	C - A47 West	D - B1535
From	A - A47 East	0	0	1020	144
	B - Berrys Lane	1	0	46	11
	C - A47 West	754	32	0	59
	D - B1535	171	13	75	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A47 East	B - Berrys Lane	C - A47 West	D - B1535
From	A - A47 East	0	0	5	1
	B - Berrys Lane	0	0	2	0
	C - A47 West	6	0	0	5
	D - B1535	3	0	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.12	9.60	0.1	0.5	A	46	46
B-AD	0.12	36.18	0.1	0.7	E	12	12
A-BCD	0.30	9.70	0.4	1.7	A	144	144
A-B						0	0
A-C						1020	1020
D-A	1.01	121.30	7.1	19.0	F	171	171
D-BC	0.92	187.89	4.8	17.9	F	88	88
C-ABD	0.08	8.77	0.1	0.5	A	32	32
C-D						59	59
C-A						754	754

Main Results for each time segment

17:25 - 17:40

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	41	10	502	0.082	41	0.1	0.1	7.814	A
B-AD	11	3	204	0.053	11	0.0	0.1	18.661	C
A-BCD	129	32	582	0.222	129	0.2	0.3	7.939	A
A-B	0	0			0				
A-C	917	229			917				
D-A	154	38	524	0.293	153	0.3	0.4	9.695	A
D-BC	79	20	194	0.408	78	0.3	0.7	30.648	D
C-ABD	29	7	518	0.056	29	0.0	0.1	7.362	A
C-D	53	13			53				
C-A	678	169			678				

17:40 - 17:55

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	51	13	429	0.118	50	0.1	0.1	9.498	A
B-AD	13	3	115	0.114	13	0.1	0.1	35.030	E
A-BCD	159	40	530	0.299	158	0.3	0.4	9.674	A
A-B	0	0			0				
A-C	1123	281			1123				
D-A	188	47	269	0.699	182	0.4	2.0	38.762	E
D-BC	97	24	106	0.917	85	0.7	3.7	133.627	F
C-ABD	35	9	449	0.078	35	0.1	0.1	8.688	A
C-D	65	16			65				
C-A	830	208			830				

17:55 - 18:10

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	51	13	426	0.119	51	0.1	0.1	9.601	A
B-AD	13	3	113	0.117	13	0.1	0.1	36.178	E
A-BCD	159	40	529	0.299	159	0.4	0.4	9.704	A
A-B	0	0			0				
A-C	1123	281			1123				
D-A	188	47	186	1.010	168	2.0	7.1	121.302	F
D-BC	97	24	106	0.916	92	3.7	4.8	187.887	F
C-ABD	35	9	446	0.079	35	0.1	0.1	8.767	A
C-D	65	16			65				
C-A	830	208			830				

18:10 - 18:25

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	41	10	497	0.083	42	0.1	0.1	7.914	A
B-AD	11	3	199	0.054	11	0.1	0.1	19.135	C
A-BCD	129	32	582	0.222	130	0.4	0.3	7.971	A
A-B	0	0			0				
A-C	917	229			917				
D-A	154	38	508	0.303	180	7.1	0.4	11.870	B
D-BC	79	20	194	0.408	95	4.8	0.7	41.631	E
C-ABD	29	7	512	0.056	29	0.1	0.1	7.448	A
C-D	53	13			53				
C-A	678	169			678				

Queue Variation Results for each time segment
17:25 - 17:40

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.09	0.03	0.25	0.45	0.48			N/A	N/A
B-AD	0.05	0.03	0.26	0.46	0.49			N/A	N/A
A-BCD	0.28	0.00	0.00	0.28	0.28			N/A	N/A
D-A	0.41	0.03	0.35	1.14	1.32			N/A	N/A
D-BC	0.65	0.05	0.51	1.44	1.44			N/A	N/A
C-ABD	0.06	0.03	0.25	0.45	0.48			N/A	N/A

17:40 - 17:55

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.13	0.03	0.26	0.47	0.49			N/A	N/A
B-AD	0.12	0.03	0.27	0.48	0.74			N/A	N/A
A-BCD	0.42	0.03	0.26	0.46	0.49			N/A	N/A
D-A	2.03	0.03	0.33	4.23	10.73			N/A	N/A
D-BC	3.65	0.11	1.57	8.83	12.26			N/A	N/A
C-ABD	0.08	0.03	0.26	0.47	0.49			N/A	N/A

17:55 - 18:10

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.13	0.03	0.25	0.45	0.48			N/A	N/A
B-AD	0.13	0.03	0.25	0.45	0.48			N/A	N/A
A-BCD	0.42	0.03	0.31	1.34	1.74			N/A	N/A
D-A	7.06	0.60	4.82	14.86	19.00			N/A	N/A
D-BC	4.80	0.10	1.71	12.47	17.89			N/A	N/A
C-ABD	0.09	0.00	0.00	0.09	0.09			N/A	N/A

18:10 - 18:25

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.09	0.00	0.00	0.09	0.09			N/A	N/A
B-AD	0.06	0.00	0.00	0.06	0.06			N/A	N/A
A-BCD	0.29	0.00	0.00	0.29	0.29			N/A	N/A
D-A	0.44	0.04	0.35	1.17	1.17			N/A	N/A
D-BC	0.73	0.03	0.32	1.50	3.54			N/A	N/A
C-ABD	0.06	0.00	0.00	0.06	0.06			N/A	N/A

Existing Layout - 2025 - Forecast Background Flows + SEP and DEP Together (Capped), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D11 - 2025 - Forecast Background Flows + SEP and DEP Together (Capped), AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A47 / Berry Lane / Wood Lane	Right-Left Stagger	Two-way		77.61	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Daylight	-21	Stream D-BC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D11	2025 - Forecast Background Flows + SEP and DEP Together (Capped)	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 East		ONE HOUR	✓	896	100.000
B - Berrys Lane		ONE HOUR	✓	42	100.000
C - A47 West		ONE HOUR	✓	1247	100.000
D - B1535		ONE HOUR	✓	216	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A47 East	B - Berrys Lane	C - A47 West	D - B1535
From	A - A47 East	0	2	726	168
	B - Berrys Lane	1	0	24	17
	C - A47 West	1067	58	0	122
	D - B1535	179	8	29	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A47 East	B - Berrys Lane	C - A47 West	D - B1535
From	A - A47 East	0	0	11	7
	B - Berrys Lane	0	0	0	0
	C - A47 West	11	2	0	8
	D - B1535	20	0	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.05	7.51	0.1	0.5	A	24	24
B-AD	0.17	38.27	0.2	1.0	E	18	18
A-BCD	0.52	20.61	1.0	4.8	C	168	168
A-B						2	2
A-C						726	726
D-A	1.86	684.05	45.5	71.5	F	179	179
D-BC	1.77	1401.34	10.0	22.7	F	37	37
C-ABD	0.12	7.65	0.1	0.5	A	58	58
C-D						122	122
C-A						1067	1067

Main Results for each time segment

06:30 - 06:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	22	5	572	0.038	22	0.0	0.0	6.538	A
B-AD	16	4	210	0.077	16	0.1	0.1	18.574	C
A-BCD	151	38	435	0.347	150	0.3	0.5	12.621	B
A-B	2	0.45			2				
A-C	653	163			653				
D-A	161	40	391	0.411	160	0.4	0.7	15.483	C
D-BC	33	8	121	0.275	32	0.2	0.4	40.254	E
C-ABD	52	13	589	0.088	52	0.1	0.1	6.701	A
C-D	110	27			110				
C-A	959	240			959				

06:45 - 07:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	26	7	513	0.052	26	0.0	0.1	7.400	A
B-AD	20	5	118	0.167	19	0.1	0.2	36.200	E
A-BCD	185	46	360	0.515	183	0.5	1.0	20.182	C
A-B	2	0.55			2				
A-C	799	200			799				
D-A	197	49	112	1.755	109	0.7	22.8	437.795	F
D-BC	41	10	24	1.719	21	0.4	5.4	645.845	F
C-ABD	64	16	541	0.118	64	0.1	0.1	7.547	A
C-D	134	34			134				
C-A	1175	294			1175				

07:00 - 07:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	26	7	506	0.052	26	0.1	0.1	7.510	A
B-AD	20	5	114	0.174	20	0.2	0.2	38.274	E
A-BCD	185	46	359	0.515	185	1.0	1.0	20.613	C
A-B	2	0.55			2				
A-C	799	200			799				
D-A	197	49	106	1.856	106	22.8	45.5	684.048	F
D-BC	41	10	23	1.773	22	5.4	10.0	1401.340	F
C-ABD	64	16	535	0.119	64	0.1	0.1	7.646	A
C-D	134	34			134				
C-A	1175	294			1175				

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	22	5	560	0.039	22	0.1	0.0	6.689	A
B-AD	16	4	201	0.081	17	0.2	0.1	19.585	C
A-BCD	151	38	435	0.347	153	1.0	0.5	12.867	B
A-B	2	0.45			2				
A-C	653	163			653				
D-A	161	40	344	0.468	336	45.5	1.7	265.255	F
D-BC	33	8	74	0.451	67	10.0	1.5	336.751	F
C-ABD	52	13	578	0.090	52	0.1	0.1	6.853	A
C-D	110	27			110				
C-A	959	240			959				

Queue Variation Results for each time segment
06:30 - 06:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.04	0.03	0.25	0.45	0.48			N/A	N/A
B-AD	0.08	0.00	0.00	0.08	0.08			N/A	N/A
A-BCD	0.52	0.52	1.00	1.40	1.45			N/A	N/A
D-A	0.68	0.03	0.27	0.68	1.23			N/A	N/A
D-BC	0.36	0.03	0.27	0.49	1.14			N/A	N/A
C-ABD	0.10	0.03	0.25	0.45	0.48			N/A	N/A

06:45 - 07:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.05	0.03	0.26	0.46	0.49			N/A	N/A
B-AD	0.19	0.03	0.27	0.48	0.98			N/A	N/A
A-BCD	1.02	0.03	0.27	1.02	1.93			N/A	N/A
D-A	22.78	8.58	20.83	35.80	41.03			N/A	N/A
D-BC	5.40	0.58	3.73	10.89	13.81			N/A	N/A
C-ABD	0.13	0.03	0.26	0.47	0.49			N/A	N/A

07:00 - 07:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.05	0.00	0.00	0.05	0.05			N/A	N/A
B-AD	0.20	0.03	0.26	0.47	0.49			N/A	N/A
A-BCD	1.04	0.03	0.30	1.19	4.83			N/A	N/A
D-A	45.55	23.97	43.51	64.51	71.48			N/A	N/A
D-BC	9.99	1.41	8.00	18.60	22.66			N/A	N/A
C-ABD	0.13	0.03	0.25	0.45	0.48			N/A	N/A

07:15 - 07:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.04	0.00	0.00	0.04	0.04			N/A	N/A
B-AD	0.09	0.00	0.00	0.09	0.09			N/A	N/A
A-BCD	0.54	0.05	0.48	1.31	1.42			N/A	N/A
D-A	1.69	0.03	0.28	1.69	4.03			N/A	N/A
D-BC	1.55	0.03	0.33	3.25	8.06			N/A	N/A
C-ABD	0.10	0.00	0.00	0.10	0.10			N/A	N/A

Existing Layout - 2025 - Forecast Background Flows + SEP and DEP Together (Capped), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D12 - 2025 - Forecast Background Flows + SEP and DEP Together (Capped), PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A47 / Berry Lane / Wood Lane	Right-Left Stagger	Two-way		41.98	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Daylight	-20	Stream D-BC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D12	2025 - Forecast Background Flows + SEP and DEP Together (Capped)	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 East		ONE HOUR	✓	1209	100.000
B - Berrys Lane		ONE HOUR	✓	58	100.000
C - A47 West		ONE HOUR	✓	848	100.000
D - B1535		ONE HOUR	✓	290	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A47 East	B - Berrys Lane	C - A47 West	D - B1535
From	A - A47 East	0	0	1055	154
	B - Berrys Lane	1	0	46	11
	C - A47 West	757	32	0	59
	D - B1535	189	13	88	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A47 East	B - Berrys Lane	C - A47 West	D - B1535
From	A - A47 East	0	0	5	1
	B - Berrys Lane	0	0	2	0
	C - A47 West	7	0	0	5
	D - B1535	3	0	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.13	10.19	0.1	0.5	B	46	46
B-AD	0.14	44.12	0.2	0.9	E	12	12
A-BCD	0.32	10.13	0.5	2.0	B	154	154
A-B						0	0
A-C						1055	1055
D-A	1.21	329.58	22.0	46.2	F	189	189
D-BC	1.18	380.40	12.4	28.5	F	101	101
C-ABD	0.08	9.22	0.1	0.5	A	32	32
C-D						59	59
C-A						757	757

Main Results for each time segment

17:25 - 17:40

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	41	10	489	0.085	41	0.1	0.1	8.042	A
B-AD	11	3	192	0.056	11	0.0	0.1	19.881	C
A-BCD	138	35	578	0.240	138	0.2	0.3	8.184	A
A-B	0	0			0				
A-C	948	237			948				
D-A	170	42	510	0.333	169	0.3	0.5	10.555	B
D-BC	91	23	185	0.491	89	0.4	0.9	36.759	E
C-ABD	29	7	505	0.057	29	0.0	0.1	7.563	A
C-D	53	13			53				
C-A	681	170			681				

17:40 - 17:55

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	51	13	412	0.123	50	0.1	0.1	9.947	A
B-AD	13	3	101	0.131	13	0.1	0.1	40.806	E
A-BCD	170	42	525	0.323	169	0.3	0.5	10.093	B
A-B	0	0			0				
A-C	1162	290			1162				
D-A	208	52	172	1.207	161	0.5	12.3	177.546	F
D-BC	111	28	94	1.181	85	0.9	7.4	228.991	F
C-ABD	35	9	433	0.081	35	0.1	0.1	9.041	A
C-D	65	16			65				
C-A	833	208			833				

17:55 - 18:10

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	51	13	404	0.125	51	0.1	0.1	10.186	B
B-AD	13	3	95	0.140	13	0.1	0.2	44.124	E
A-BCD	170	42	525	0.323	170	0.5	0.5	10.132	B
A-B	0	0			0				
A-C	1162	290			1162				
D-A	208	52	172	1.213	170	12.3	22.0	329.576	F
D-BC	111	28	94	1.184	91	7.4	12.4	380.396	F
C-ABD	35	9	426	0.083	35	0.1	0.1	9.222	A
C-D	65	16			65				
C-A	833	208			833				

18:10 - 18:25

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	41	10	475	0.087	42	0.1	0.1	8.306	A
B-AD	11	3	181	0.060	11	0.2	0.1	21.294	C
A-BCD	138	35	578	0.240	139	0.5	0.3	8.223	A
A-B	0	0			0				
A-C	948	237			948				
D-A	170	42	442	0.384	255	22.0	0.6	30.410	D
D-BC	91	23	183	0.496	136	12.4	1.1	114.413	F
C-ABD	29	7	491	0.059	29	0.1	0.1	7.798	A
C-D	53	13			53				
C-A	681	170			681				

Queue Variation Results for each time segment
17:25 - 17:40

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.09	0.03	0.25	0.45	0.48			N/A	N/A
B-AD	0.06	0.03	0.25	0.45	0.48			N/A	N/A
A-BCD	0.31	0.00	0.00	0.31	0.31			N/A	N/A
D-A	0.49	0.03	0.30	1.26	2.24			N/A	N/A
D-BC	0.90	0.04	0.43	2.01	3.22			N/A	N/A
C-ABD	0.06	0.03	0.25	0.45	0.48			N/A	N/A

17:40 - 17:55

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.14	0.03	0.26	0.47	0.49			N/A	N/A
B-AD	0.14	0.03	0.27	0.48	0.87			N/A	N/A
A-BCD	0.47	0.03	0.26	0.47	0.49			N/A	N/A
D-A	12.32	2.03	10.07	22.82	27.68			N/A	N/A
D-BC	7.43	1.20	5.70	14.09	17.37			N/A	N/A
C-ABD	0.09	0.03	0.26	0.47	0.50			N/A	N/A

17:55 - 18:10

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.14	0.03	0.25	0.45	0.48			N/A	N/A
B-AD	0.16	0.03	0.25	0.45	0.48			N/A	N/A
A-BCD	0.47	0.03	0.31	1.39	2.03			N/A	N/A
D-A	21.97	5.25	18.98	38.87	46.23			N/A	N/A
D-BC	12.41	1.83	10.02	23.37	28.51			N/A	N/A
C-ABD	0.09	0.00	0.00	0.09	0.09			N/A	N/A

18:10 - 18:25

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.10	0.00	0.00	0.10	0.10			N/A	N/A
B-AD	0.07	0.00	0.00	0.07	0.07			N/A	N/A
A-BCD	0.32	0.00	0.00	0.32	0.32			N/A	N/A
D-A	0.65	0.03	0.27	0.65	1.64			N/A	N/A
D-BC	1.13	0.03	0.30	1.63	5.52			N/A	N/A
C-ABD	0.06	0.00	0.00	0.06	0.06			N/A	N/A

Junctions 9
PICADY 9 - Priority Intersection Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
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Filename: Junction 2 - Hornsea P3 Layout - Construction Peaks.j9
Path: C:\Users\921707\Box\PB8164 Equinor DOW SS Ext\PB8164 Team\PB8164 Technical Data\E08 Transport\TD\Calcs\Modelling\J2
Report generation date: 14/04/2023 10:45:55

- »Hornsea P3 Layout - 2021 - Construction Peak - Baseline, AM
- »Hornsea P3 Layout - 2021 - Construction Peak - Baseline, PM
- »Hornsea P3 Layout - 2025 - Forecast Background Flows, AM
- »Hornsea P3 Layout - 2025 - Forecast Background Flows, PM
- »Hornsea P3 Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation, AM
- »Hornsea P3 Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation, PM
- »Hornsea P3 Layout - 2025 - Forecast Background Flows + SEP and DEP , AM
- »Hornsea P3 Layout - 2025 - Forecast Background Flows + SEP and DEP , PM

Summary of junction performance

	AM					PM				
	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)	Network Residual Capacity
Hornsea P3 Layout - 2021 - Construction Peak - Baseline										
Stream B-AC	0.0	9.61	0.02	0.04	72 %	0.0	7.65	0.02	0.04	122 %
Stream C-B	0.0	0.00	0.00		[Stream B-AC]	0.0	0.00	0.00		[Stream B-AC]
Hornsea P3 Layout - 2025 - Forecast Background Flows										
Stream B-AC	0.0	10.39	0.02	0.04	60 %	0.0	8.07	0.02	0.04	105 %
Stream C-B	0.0	0.00	0.00		[Stream B-AC]	0.0	0.00	0.00		[Stream B-AC]
Hornsea P3 Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation										
Stream B-AC	0.0	14.53	0.05	0.09	39 %	0.3	14.93	0.22	0.40	7 %
Stream C-B	0.0	0.00	0.00		[Stream B-AC]	0.0	0.00	0.00		[Stream B-AC]
Hornsea P3 Layout - 2025 - Forecast Background Flows + SEP and DEP										
Stream B-AC	0.1	18.25	0.07	0.14	27 %	0.3	9.63	0.21	0.38	65 %
Stream C-B	0.0	0.00	0.00		[Stream B-AC]	0.0	0.00	0.00		[Stream B-AC]

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

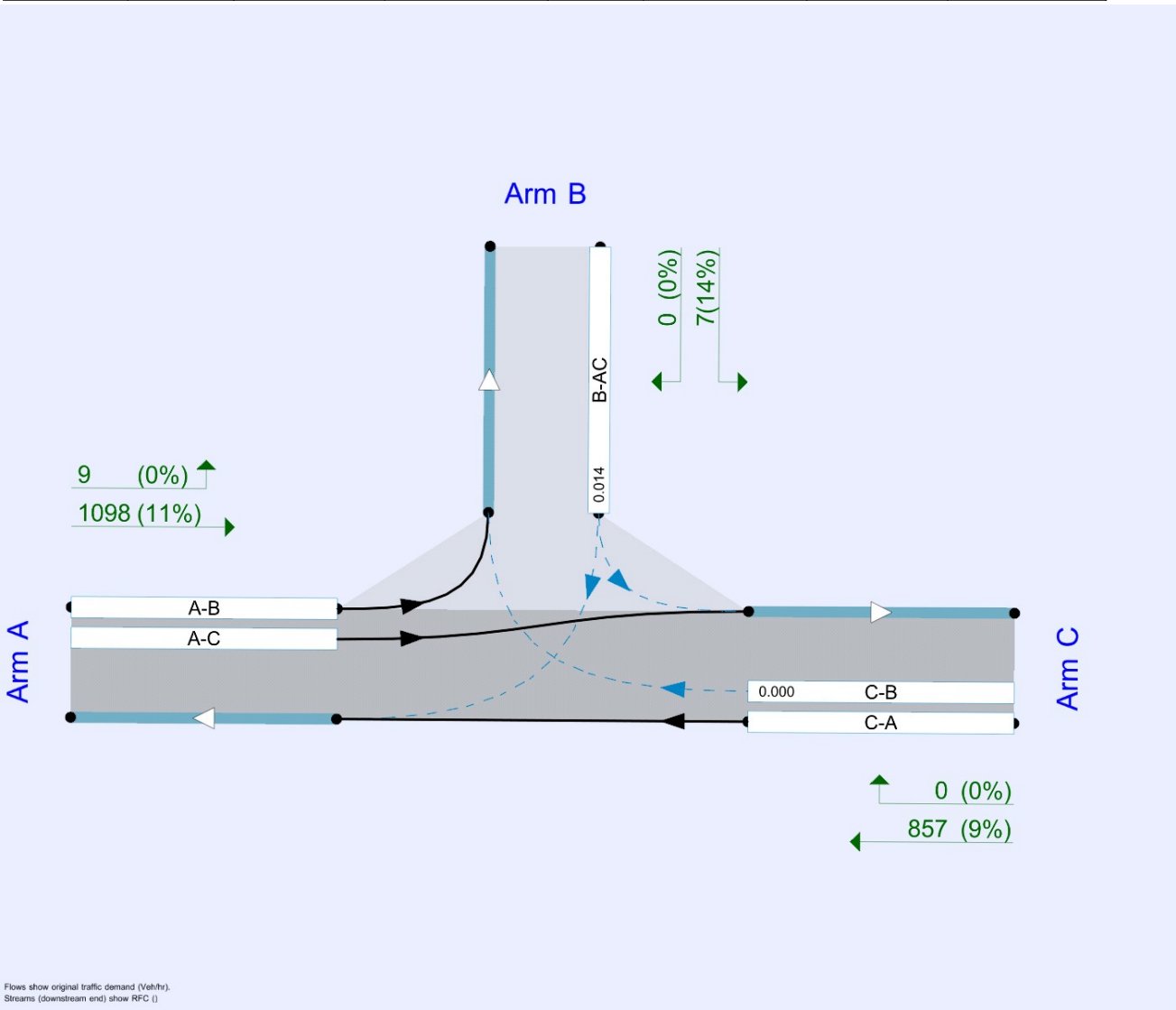
File summary

File Description

Title	Junction 2
Location	A47 / Blind Lane / Taverham Road
Site number	2
Date	21/03/2022
Version	1
Status	Hornsea P3 Layout
Identifier	
Client	Equinor
Jobnumber	PB8164
Enumerator	CORPORATEROOT\304111
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓		✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021 - Construction Peak - Baseline	AM	ONE HOUR	06:15	07:45		15	✓	✓
D2	2021 - Construction Peak - Baseline	PM	ONE HOUR	17:10	18:40		15	✓	✓
D3	2025 - Forecast Background Flows	AM	ONE HOUR	06:15	07:45		15	✓	✓
D4	2025 - Forecast Background Flows	PM	ONE HOUR	17:10	18:40		15	✓	✓
D5	2025 - Forecast Background Flows + SEP or DEP in Isolation	AM	ONE HOUR	06:15	07:45		15	✓	✓
D6	2025 - Forecast Background Flows + SEP or DEP in Isolation	PM	ONE HOUR	17:10	18:40		15	✓	✓
D7	2025 - Forecast Background Flows + SEP and DEP	AM	ONE HOUR	06:15	07:45		15	✓	✓
D8	2025 - Forecast Background Flows + SEP and DEP	PM	FLAT	17:10	18:40	90	15		✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Hornsea P3 Layout	✓	100.000	100.000

Hornsea P3 Layout - 2021 - Construction Peak - Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D1 - 2021 - Construction Peak - Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.04	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	72	Stream B-AC

Arms

Arms

Arm	Name	Description	Arm type
A	A47 West		Major
B	Tavernham Road		Minor
C	A47 East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.35			120.0		-

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	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	4.00	250	250

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	767	0.131	0.332	0.209	0.475
1	B-C	860	0.124	0.313	-	-
1	C-B	643	0.235	0.235	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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)	Results for central hour only	Run automatically
D1	2021 - Construction Peak - Baseline	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1107	100.000
B		ONE HOUR	✓	7	100.000
C		ONE HOUR	✓	857	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	9	1098
	B	0	0	7
	C	857	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	11
	B	0	0	14
	C	9	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.02	9.61	0.0	0.5	A	7	7
C-A						857	857
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						9	9
A-C						1098	1098

Main Results for each time segment

06:30 - 06:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	6	2	450	0.014	6	0.0	0.0	8.111	A
C-A	770	193			770				
C-B	0	0	384	0.000	0	0.0	0.0	0.000	A
A-B	8	2			8				
A-C	987	247			987				

06:45 - 07:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	8	2	382	0.020	8	0.0	0.0	9.611	A
C-A	944	236			944				
C-B	0	0	326	0.000	0	0.0	0.0	0.000	A
A-B	10	2			10				
A-C	1209	302			1209				

07:00 - 07:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	8	2	382	0.020	8	0.0	0.0	9.611	A
C-A	944	236			944				
C-B	0	0	326	0.000	0	0.0	0.0	0.000	A
A-B	10	2			10				
A-C	1209	302			1209				

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	6	2	450	0.014	6	0.0	0.0	8.113	A
C-A	770	193			770				
C-B	0	0	384	0.000	0	0.0	0.0	0.000	A
A-B	8	2			8				
A-C	987	247			987				

Queue Variation Results for each time segment

06:30 - 06:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.01	0.25	0.45	0.48			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

06:45 - 07:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

07:00 - 07:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

07:15 - 07:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Hornsea P3 Layout - 2021 - Construction Peak - Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2021 - Construction Peak - Baseline, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.04	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	122	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D2	2021 - Construction Peak - Baseline	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	916	100.000
B		ONE HOUR	✓	9	100.000
C		ONE HOUR	✓	1062	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	20	896
	B	0	0	9
	C	1062	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	4
	B	0	0	11
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.02	7.65	0.0	0.5	A	9	9
C-A						1062	1062
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						20	20
A-C						896	896

Main Results for each time segment

17:25 - 17:40

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	8	2	534	0.015	8	0.0	0.0	6.839	A
C-A	955	239			955				
C-B	0	0	442	0.000	0	0.0	0.0	0.000	A
A-B	18	4			18				
A-C	805	201			805				

17:40 - 17:55

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	10	2	481	0.021	10	0.0	0.0	7.647	A
C-A	1169	292			1169				
C-B	0	0	397	0.000	0	0.0	0.0	0.000	A
A-B	22	6			22				
A-C	987	247			987				

17:55 - 18:10

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	10	2	481	0.021	10	0.0	0.0	7.647	A
C-A	1169	292			1169				
C-B	0	0	397	0.000	0	0.0	0.0	0.000	A
A-B	22	6			22				
A-C	987	247			987				

18:10 - 18:25

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	8	2	534	0.015	8	0.0	0.0	6.842	A
C-A	955	239			955				
C-B	0	0	442	0.000	0	0.0	0.0	0.000	A
A-B	18	4			18				
A-C	805	201			805				

Queue Variation Results for each time segment

17:25 - 17:40

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.02	0.25	0.45	0.48			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:40 - 17:55

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:55 - 18:10

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

18:10 - 18:25

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Hornsea P3 Layout - 2025 - Forecast Background Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D3 - 2025 - Forecast Background Flows, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.04	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	60	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D3	2025 - Forecast Background Flows	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1193	100.000
B		ONE HOUR	✓	8	100.000
C		ONE HOUR	✓	924	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	10	1183
	B	0	0	8
	C	924	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	11
	B	0	0	14
	C	9	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.02	10.39	0.0	0.5	B	8	8
C-A						924	924
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						10	10
A-C						1183	1183

Main Results for each time segment

06:30 - 06:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	7	2	428	0.017	7	0.0	0.0	8.546	A
C-A	831	208			831				
C-B	0	0	364	0.000	0	0.0	0.0	0.000	A
A-B	9	2			9				
A-C	1063	266			1063				

06:45 - 07:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	9	2	355	0.025	9	0.0	0.0	10.391	B
C-A	1017	254			1017				
C-B	0	0	302	0.000	0	0.0	0.0	0.000	A
A-B	11	3			11				
A-C	1303	326			1303				

07:00 - 07:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	9	2	355	0.025	9	0.0	0.0	10.391	B
C-A	1017	254			1017				
C-B	0	0	302	0.000	0	0.0	0.0	0.000	A
A-B	11	3			11				
A-C	1303	326			1303				

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	7	2	428	0.017	7	0.0	0.0	8.547	A
C-A	831	208			831				
C-B	0	0	364	0.000	0	0.0	0.0	0.000	A
A-B	9	2			9				
A-C	1063	266			1063				

Queue Variation Results for each time segment

06:30 - 06:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.02	0.25	0.45	0.48			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

06:45 - 07:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

07:00 - 07:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

07:15 - 07:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Hornsea P3 Layout - 2025 - Forecast Background Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D4 - 2025 - Forecast Background Flows, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.04	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	105	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D4	2025 - Forecast Background Flows	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	989	100.000
B		ONE HOUR	✓	10	100.000
C		ONE HOUR	✓	1146	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	22	967
	B	0	0	10
	C	1146	0	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A	B	C
A	0	0	4
B	0	0	11
C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.02	8.07	0.0	0.5	A	10	10
C-A						1146	1146
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						22	22
A-C						967	967

Main Results for each time segment

17:25 - 17:40

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	9	2	515	0.017	9	0.0	0.0	7.108	A
C-A	1030	258			1030				
C-B	0	0	426	0.000	0	0.0	0.0	0.000	A
A-B	20	5			20				
A-C	869	217			869				

17:40 - 17:55

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	11	3	457	0.024	11	0.0	0.0	8.065	A
C-A	1262	315			1262				
C-B	0	0	377	0.000	0	0.0	0.0	0.000	A
A-B	24	6			24				
A-C	1065	266			1065				

17:55 - 18:10

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	11	3	457	0.024	11	0.0	0.0	8.065	A
C-A	1262	315			1262				
C-B	0	0	377	0.000	0	0.0	0.0	0.000	A
A-B	24	6			24				
A-C	1065	266			1065				

18:10 - 18:25

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	9	2	515	0.017	9	0.0	0.0	7.108	A
C-A	1030	258			1030				
C-B	0	0	426	0.000	0	0.0	0.0	0.000	A
A-B	20	5			20				
A-C	869	217			869				

Queue Variation Results for each time segment
17:25 - 17:40

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.02	0.25	0.45	0.48			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:40 - 17:55

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:55 - 18:10

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

18:10 - 18:25

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Hornsea P3 Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D5 - 2025 - Forecast Background Flows + SEP or DEP in Isolation, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.09	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	39	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D5	2025 - Forecast Background Flows + SEP or DEP in Isolation	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1323	100.000
B		ONE HOUR	✓	11	100.000
C		ONE HOUR	✓	988	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	55	1268
	B	0	0	11
	C	988	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	6	12
	B	0	0	39
	C	10	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.05	14.53	0.0	0.5	B	11	11
C-A						988	988
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						55	55
A-C						1268	1268

Main Results for each time segment

06:30 - 06:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	10	2	325	0.030	10	0.0	0.0	11.409	B
C-A	888	222			888				
C-B	0	0	332	0.000	0	0.0	0.0	0.000	A
A-B	49	12			49				
A-C	1140	285			1140				

06:45 - 07:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	12	3	260	0.047	12	0.0	0.0	14.528	B
C-A	1088	272			1088				
C-B	0	0	262	0.000	0	0.0	0.0	0.000	A
A-B	61	15			61				
A-C	1396	349			1396				

07:00 - 07:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	12	3	260	0.047	12	0.0	0.0	14.533	B
C-A	1088	272			1088				
C-B	0	0	262	0.000	0	0.0	0.0	0.000	A
A-B	61	15			61				
A-C	1396	349			1396				

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	10	2	325	0.030	10	0.0	0.0	11.418	B
C-A	888	222			888				
C-B	0	0	332	0.000	0	0.0	0.0	0.000	A
A-B	49	12			49				
A-C	1140	285			1140				

Queue Variation Results for each time segment

06:30 - 06:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.03	0.03	0.25	0.45	0.48			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

06:45 - 07:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.05	0.03	0.25	0.46	0.48			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

07:00 - 07:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

07:15 - 07:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Hornsea P3 Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - 2025 - Forecast Background Flows + SEP or DEP in Isolation, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.40	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	7	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D6	2025 - Forecast Background Flows + SEP or DEP in Isolation	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1018	100.000
B		ONE HOUR	✓	61	100.000
C		ONE HOUR	✓	1240	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	25	993
	B	6	0	55
	C	1240	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	13	6
	B	0	0	8
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.22	14.93	0.3	1.2	B	61	61
C-A						1240	1240
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						25	25
A-C						993	993

Main Results for each time segment

17:25 - 17:40

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	55	14	451	0.122	55	0.1	0.1	9.075	A
C-A	1115	279			1115				
C-B	0	0	415	0.000	0	0.0	0.0	0.000	A
A-B	22	6			22				
A-C	893	223			893				

17:40 - 17:55

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	67	17	308	0.218	67	0.1	0.3	14.861	B
C-A	1365	341			1365				
C-B	0	0	364	0.000	0	0.0	0.0	0.000	A
A-B	28	7			28				
A-C	1093	273			1093				

17:55 - 18:10

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	67	17	308	0.218	67	0.3	0.3	14.928	B
C-A	1365	341			1365				
C-B	0	0	364	0.000	0	0.0	0.0	0.000	A
A-B	28	7			28				
A-C	1093	273			1093				

18:10 - 18:25

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	55	14	451	0.122	55	0.3	0.1	9.109	A
C-A	1115	279			1115				
C-B	0	0	415	0.000	0	0.0	0.0	0.000	A
A-B	22	6			22				
A-C	893	223			893				

Queue Variation Results for each time segment

17:25 - 17:40

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.14	0.00	0.00	0.14	0.14			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:40 - 17:55

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.27	0.03	0.26	0.47	0.49			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:55 - 18:10

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.28	0.03	0.30	0.88	1.21			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

18:10 - 18:25

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.14	0.00	0.00	0.14	0.14			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Hornsea P3 Layout - 2025 - Forecast Background Flows + SEP and DEP , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D7 - 2025 - Forecast Background Flows + SEP and DEP , AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.14	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	27	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D7	2025 - Forecast Background Flows + SEP and DEP	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1421	100.000
B		ONE HOUR	✓	14	100.000
C		ONE HOUR	✓	1052	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	97	1324
	B	0	0	14
	C	1052	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	7	13
	B	0	0	55
	C	12	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.07	18.25	0.1	0.5	C	14	14
C-A						1052	1052
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						97	97
A-C						1324	1324

Main Results for each time segment

06:30 - 06:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	13	3	275	0.046	13	0.0	0.0	13.693	B
C-A	946	236			946				
C-B	0	0	306	0.000	0	0.0	0.0	0.000	A
A-B	87	22			87				
A-C	1190	298			1190				

06:45 - 07:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	15	4	213	0.072	15	0.0	0.1	18.225	C
C-A	1158	290			1158				
C-B	0	0	231	0.000	0	0.0	0.0	0.000	A
A-B	107	27			107				
A-C	1458	364			1458				

07:00 - 07:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	15	4	213	0.072	15	0.1	0.1	18.246	C
C-A	1158	290			1158				
C-B	0	0	231	0.000	0	0.0	0.0	0.000	A
A-B	107	27			107				
A-C	1458	364			1458				

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	13	3	275	0.046	13	0.1	0.0	13.713	B
C-A	946	236			946				
C-B	0	0	306	0.000	0	0.0	0.0	0.000	A
A-B	87	22			87				
A-C	1190	298			1190				

Queue Variation Results for each time segment

06:30 - 06:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.05	0.03	0.25	0.45	0.48			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

06:45 - 07:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.08	0.03	0.26	0.47	0.50			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

07:00 - 07:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.08	0.03	0.25	0.45	0.48			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

07:15 - 07:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Hornsea P3 Layout - 2025 - Forecast Background Flows + SEP and DEP , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Flow Arm A	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm B	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Flow Arm C	Analysis Options	Queue percentiles cannot be calculated for the selected traffic profile type.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.38	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	65	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2025 - Forecast Background Flows + SEP and DEP	PM	FLAT	17:10	18:40	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		FLAT	✓	1048	100.000
B		FLAT	✓	97	100.000
C		FLAT	✓	1305	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	28	1020
	B	0	0	97
	C	1305	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	24	8
	B	0	0	8
	C	7	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.21	9.63	0.3	~1	A	97	146
C-A						1305	1958
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						28	42
A-C						1020	1530

Main Results for each time segment

17:10 - 17:25

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	97	24	471	0.206	96	0.0	0.3	9.582	A
C-A	1305	326			1305				
C-B	0	0	376	0.000	0	0.0	0.0	0.000	A
A-B	28	7			28				
A-C	1020	255			1020				

17:25 - 17:40

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	97	24	471	0.206	97	0.3	0.3	9.633	A
C-A	1305	326			1305				
C-B	0	0	376	0.000	0	0.0	0.0	0.000	A
A-B	28	7			28				
A-C	1020	255			1020				

17:40 - 17:55

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	97	24	471	0.206	97	0.3	0.3	9.633	A
C-A	1305	326			1305				
C-B	0	0	376	0.000	0	0.0	0.0	0.000	A
A-B	28	7			28				
A-C	1020	255			1020				

17:55 - 18:10

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	97	24	471	0.206	97	0.3	0.3	9.633	A
C-A	1305	326			1305				
C-B	0	0	376	0.000	0	0.0	0.0	0.000	A
A-B	28	7			28				
A-C	1020	255			1020				

18:10 - 18:25

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	97	24	471	0.206	97	0.3	0.3	9.633	A
C-A	1305	326			1305				
C-B	0	0	376	0.000	0	0.0	0.0	0.000	A
A-B	28	7			28				
A-C	1020	255			1020				

18:25 - 18:40

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	97	24	471	0.206	97	0.3	0.3	9.633	A
C-A	1305	326			1305				
C-B	0	0	376	0.000	0	0.0	0.0	0.000	A
A-B	28	7			28				
A-C	1020	255			1020				

Queue Variation Results for each time segment
17:10 - 17:25

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.26	~1	~1	~1	~1			N/A	N/A
C-B	0.00	~1	~1	~1	~1			N/A	N/A

17:25 - 17:40

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.26	~1	~1	~1	~1			N/A	N/A
C-B	0.00	~1	~1	~1	~1			N/A	N/A

17:40 - 17:55

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.26	~1	~1	~1	~1			N/A	N/A
C-B	0.00	~1	~1	~1	~1			N/A	N/A

17:55 - 18:10

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.26	~1	~1	~1	~1			N/A	N/A
C-B	0.00	~1	~1	~1	~1			N/A	N/A

18:10 - 18:25

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.26	~1	~1	~1	~1			N/A	N/A
C-B	0.00	~1	~1	~1	~1			N/A	N/A

18:25 - 18:40

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.26	~1	~1	~1	~1			N/A	N/A
C-B	0.00	~1	~1	~1	~1			N/A	N/A

<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
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Filename: Junction 3 - Existing Layout - Construction Peaks.j9

Path: C:\Users\921707\Box\PB8164 Equinor DOW SS Ext\PB8164 Team\PB8164 Technical Data\E08
Transport\TD\Calcs\Modelling\J3

Report generation date: 14/04/2023 10:49:24

-
- »Existing Layout - 2021 - Construction Peak - Baseline, AM
 - »Existing Layout - 2021 - Construction Peak - Baseline , PM
 - »Existing Layout - 2025 - Forecast Background Flows, AM
 - »Existing Layout - 2025 - Forecast Background Flows, PM
 - »Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation , AM
 - »Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation , PM
 - »Existing Layout - 2025 - Forecast Background Flows + SEP and DEP , AM
 - »Existing Layout - 2025 - Forecast Background Flows + SEP and DEP , PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Existing Layout - 2021 - Construction Peak - Baseline														
A - A47 East	0.6	2.00	0.36	A	3.01	A	53 % [D - Church Lane]	0.7	2.10	0.41	A	2.51	A	88 % [B - Dereham Road]
B - Dereham Road	0.1	3.87	0.06	A				0.1	4.58	0.13	A			
C - A47 West	1.1	3.33	0.53	A				0.7	2.55	0.41	A			
D - Church Lane	0.3	6.61	0.23	A				0.1	4.72	0.12	A			
Existing Layout - 2025 - Forecast Background Flows														
A - A47 East	0.6	2.10	0.39	A	3.28	A	41 % [D - Church Lane]	0.8	2.23	0.45	A	2.68	A	73 % [B - Dereham Road]
B - Dereham Road	0.1	4.08	0.07	A				0.2	4.98	0.15	A			
C - A47 West	1.3	3.68	0.57	A				0.8	2.72	0.45	A			
D - Church Lane	0.4	7.52	0.27	A				0.2	5.06	0.13	A			
Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation														
A - A47 East	0.8	2.39	0.45	A	3.80	A	31 % [D - Church Lane]	0.9	2.45	0.49	A	3.12	A	49 % [B - Dereham Road]
B - Dereham Road	0.1	4.48	0.08	A				0.3	6.54	0.25	A			
C - A47 West	1.7	4.37	0.63	A				1.0	3.15	0.51	A			
D - Church Lane	0.4	8.93	0.31	A				0.2	5.72	0.15	A			
Existing Layout - 2025 - Forecast Background Flows + SEP and DEP														
A - A47 East	0.9	2.49	0.47	A	4.02	A	27 % [D - Church Lane]	1.0	2.58	0.51	A	3.36	A	44 % [B - Dereham Road]
B - Dereham Road	0.2	6.02	0.13	A				0.4	7.11	0.27	A			
C - A47 West	1.9	4.60	0.65	A				1.2	3.43	0.54	A			
D - Church Lane	0.5	9.52	0.32	A				0.2	6.18	0.16	A			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

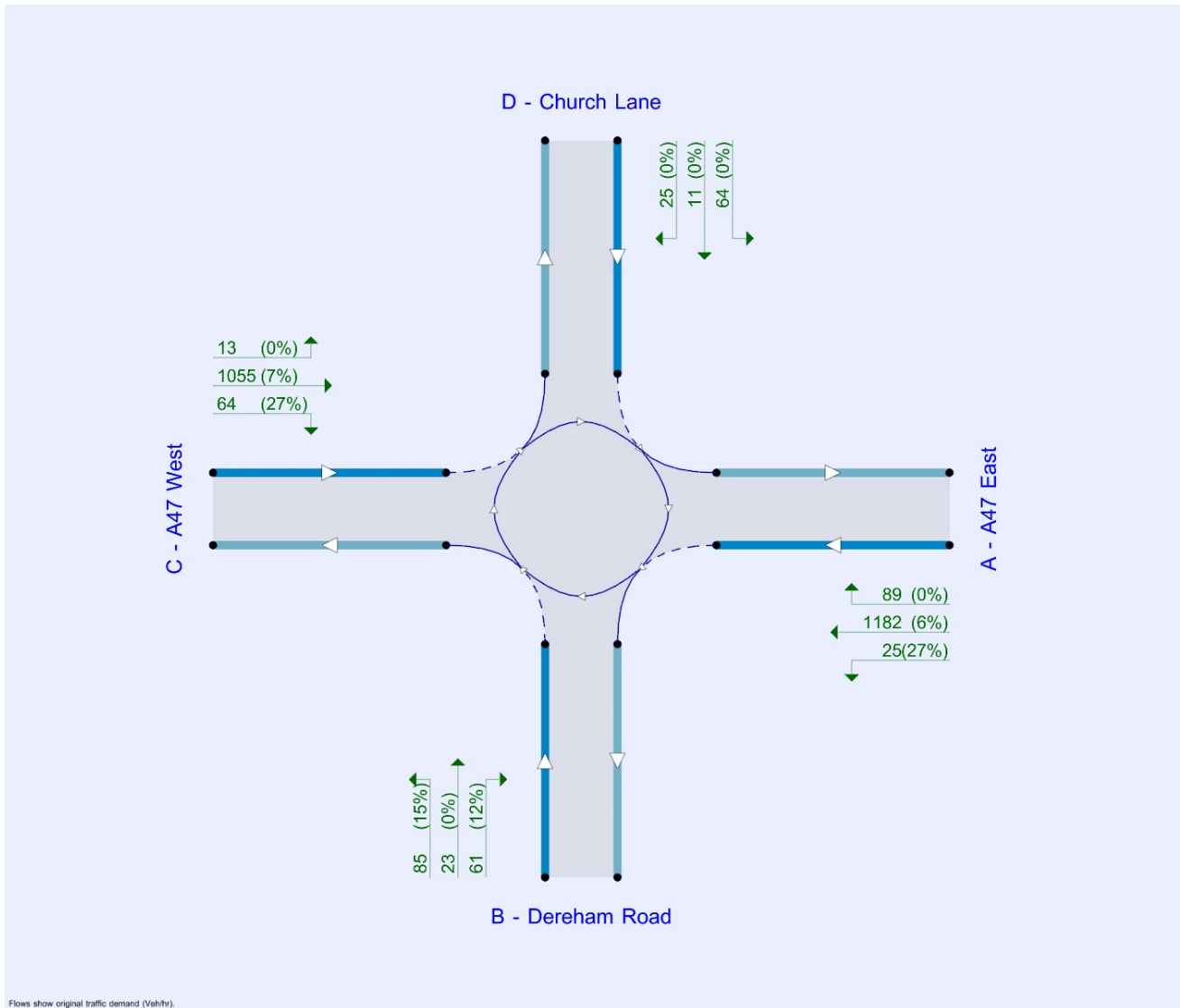
File summary

File Description

Title	Junction 3
Location	A47 / Dereham Road / Church Lane
Site number	3
Date	11/04/2022
Version	1
Status	Existing Layout
Identifier	
Client	Equinor
Jobnumber	PB8164
Enumerator	CORPORATEROOT\921707
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓		✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021 - Construction Peak - Baseline	AM	ONE HOUR	06:15	07:45	15	✓	✓
D2	2021 - Construction Peak - Baseline	PM	ONE HOUR	17:10	18:40	15	✓	✓
D3	2025 - Forecast Background Flows	AM	ONE HOUR	06:15	07:45	15	✓	✓
D4	2025 - Forecast Background Flows	PM	ONE HOUR	17:10	18:40	15	✓	✓
D5	2025 - Forecast Background Flows + SEP or DEP in Isolation	AM	ONE HOUR	06:15	07:45	15	✓	✓
D6	2025 - Forecast Background Flows + SEP or DEP in Isolation	PM	ONE HOUR	17:10	18:40	15	✓	✓
D7	2025 - Forecast Background Flows + SEP and DEP	AM	ONE HOUR	06:15	07:45	15	✓	✓
D8	2025 - Forecast Background Flows + SEP and DEP	PM	ONE HOUR	17:10	18:40	15	✓	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	Exisiting Layout	✓	100.000	100.000

Existing Layout - 2021 - Construction Peak - Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A47 West - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D1 - 2021 - Construction Peak - Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	A47 / Dereham Road / Church Lane	Standard Roundabout		A, B, C, D	3.01	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	53	D - Church Lane

Arms

Arms

Arm	Name	Description
A	A47 East	
B	Dereham Road	
C	A47 West	
D	Church Lane	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - A47 East	9.92	9.92	0.0	21.6	63.7	22.0	
B - Dereham Road	3.46	8.21	6.5	28.8	63.7	14.5	
C - A47 West	4.70	9.04	51.0	24.7	63.7	13.0	
D - Church Lane	3.18	7.79	5.7	16.9	63.7	20.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A47 East	0.778	3100
B - Dereham Road	0.534	1582
C - A47 West	0.708	2626
D - Church Lane	0.491	1388

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)	Results for central hour only	Run automatically
D1	2021 - Construction Peak - Baseline	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 East		ONE HOUR	✓	914	100.000
B - Dereham Road		ONE HOUR	✓	57	100.000
C - A47 West		ONE HOUR	✓	1111	100.000
D - Church Lane		ONE HOUR	✓	151	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A47 East	B - Dereham Road	C - A47 West	D - Church Lane
From	A - A47 East	3	47	811	53
	B - Dereham Road	26	0	24	7
	C - A47 West	1067	34	0	10
	D - Church Lane	112	9	30	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A47 East	B - Dereham Road	C - A47 West	D - Church Lane
From	A - A47 East	0	2	9	0
	B - Dereham Road	0	0	4	0
	C - A47 West	11	9	0	0
	D - Church Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 East	0.36	2.00	0.6	2.6	A	914	914
B - Dereham Road	0.06	3.87	0.1	0.5	A	57	57
C - A47 West	0.53	3.33	1.1	1.4	A	1111	1111
D - Church Lane	0.23	6.61	0.3	1.3	A	151	151

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	822	205	66	2814	0.292	821	1085	0.3	0.4	1.805	A
B - Dereham Road	51	13	806	1096	0.047	51	81	0.0	0.0	3.445	A
C - A47 West	999	250	80	2314	0.432	998	777	0.6	0.8	2.734	A
D - Church Lane	136	34	1015	835	0.162	136	63	0.1	0.2	5.142	A

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1006	252	80	2803	0.359	1006	1328	0.4	0.6	2.003	A
B - Dereham Road	63	16	987	993	0.063	63	99	0.0	0.1	3.869	A
C - A47 West	1223	306	98	2302	0.531	1222	952	0.8	1.1	3.327	A
D - Church Lane	166	42	1243	712	0.234	166	77	0.2	0.3	6.590	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1006	252	80	2803	0.359	1006	1330	0.6	0.6	2.003	A
B - Dereham Road	63	16	988	993	0.063	63	99	0.1	0.1	3.870	A
C - A47 West	1223	306	98	2302	0.531	1223	952	1.1	1.1	3.335	A
D - Church Lane	166	42	1244	711	0.234	166	77	0.3	0.3	6.610	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	822	205	66	2814	0.292	822	1088	0.6	0.4	1.809	A
B - Dereham Road	51	13	807	1095	0.047	51	81	0.1	0.0	3.447	A
C - A47 West	999	250	80	2314	0.432	1000	778	1.1	0.8	2.743	A
D - Church Lane	136	34	1017	834	0.163	136	63	0.3	0.2	5.161	A

Queue Variation Results for each time segment

06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.41	0.00	0.00	0.41	0.41			N/A	N/A
B - Dereham Road	0.05	0.03	0.25	0.45	0.48			N/A	N/A
C - A47 West	0.76	0.08	0.79	1.25	1.25			N/A	N/A
D - Church Lane	0.19	0.00	0.00	0.19	0.19			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.56	0.03	0.25	0.56	0.56			N/A	N/A
B - Dereham Road	0.07	0.03	0.26	0.47	0.49			N/A	N/A
C - A47 West	1.12	0.03	0.26	1.12	1.12			N/A	N/A
D - Church Lane	0.30	0.03	0.25	0.46	0.48			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.56	0.03	0.30	1.40	2.63			N/A	N/A
B - Dereham Road	0.07	0.00	0.00	0.07	0.07			N/A	N/A
C - A47 West	1.13	0.03	0.26	1.13	1.13			N/A	N/A
D - Church Lane	0.30	0.03	0.31	1.03	1.30			N/A	N/A

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.41	0.00	0.00	0.41	0.41			N/A	N/A
B - Dereham Road	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C - A47 West	0.76	0.55	1.00	1.40	1.45			N/A	N/A
D - Church Lane	0.20	0.00	0.00	0.20	0.20			N/A	N/A

Existing Layout - 2021 - Construction Peak - Baseline , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A47 West - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D2 - 2021 - Construction Peak - Baseline , PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	A47 / Dereham Road / Church Lane	Standard Roundabout		A, B, C, D	2.51	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	88	B - Dereham Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D2	2021 - Construction Peak - Baseline	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 East		ONE HOUR	✓	1103	100.000
B - Dereham Road		ONE HOUR	✓	103	100.000
C - A47 West		ONE HOUR	✓	907	100.000
D - Church Lane		ONE HOUR	✓	92	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A47 East	B - Dereham Road	C - A47 West	D - Church Lane
From	A - A47 East	8	17	996	82
	B - Dereham Road	24	0	58	21
	C - A47 West	848	47	0	12
	D - Church Lane	59	10	23	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - A47 East	B - Dereham Road	C - A47 West	D - Church Lane
A - A47 East	13	0	4	0
B - Dereham Road	0	0	2	0
C - A47 West	5	9	0	0
D - Church Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 East	0.41	2.10	0.7	2.5	A	1103	1103
B - Dereham Road	0.13	4.58	0.1	0.5	A	103	103
C - A47 West	0.41	2.55	0.7	2.5	A	907	907
D - Church Lane	0.12	4.72	0.1	0.5	A	92	92

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	992	248	72	2943	0.337	991	844	0.4	0.5	1.843	A
B - Dereham Road	93	23	996	1022	0.091	92	66	0.1	0.1	3.873	A
C - A47 West	815	204	121	2426	0.336	815	968	0.4	0.5	2.234	A
D - Church Lane	83	21	833	960	0.086	83	103	0.1	0.1	4.103	A

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1214	304	88	2930	0.414	1214	1033	0.5	0.7	2.096	A
B - Dereham Road	113	28	1220	900	0.126	113	81	0.1	0.1	4.576	A
C - A47 West	999	250	148	2408	0.415	998	1185	0.5	0.7	2.552	A
D - Church Lane	101	25	1020	864	0.117	101	127	0.1	0.1	4.718	A

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1214	304	88	2930	0.414	1214	1034	0.7	0.7	2.097	A
B - Dereham Road	113	28	1221	899	0.126	113	81	0.1	0.1	4.581	A
C - A47 West	999	250	149	2408	0.415	999	1186	0.7	0.7	2.554	A
D - Church Lane	101	25	1021	863	0.117	101	127	0.1	0.1	4.723	A

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	992	248	72	2943	0.337	992	845	0.7	0.5	1.848	A
B - Dereham Road	93	23	998	1021	0.091	93	67	0.1	0.1	3.877	A
C - A47 West	815	204	122	2426	0.336	816	969	0.7	0.5	2.238	A
D - Church Lane	83	21	834	959	0.086	83	103	0.1	0.1	4.109	A

Queue Variation Results for each time segment

17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.51	0.05	0.51	1.30	1.40			N/A	N/A
B - Dereham Road	0.10	0.00	0.00	0.10	0.10			N/A	N/A
C - A47 West	0.50	0.50	1.00	1.40	1.45			N/A	N/A
D - Church Lane	0.09	0.03	0.25	0.45	0.48			N/A	N/A

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.71	0.03	0.25	0.71	0.71			N/A	N/A
B - Dereham Road	0.14	0.03	0.26	0.46	0.49			N/A	N/A
C - A47 West	0.71	0.03	0.25	0.71	0.71			N/A	N/A
D - Church Lane	0.13	0.03	0.26	0.46	0.49			N/A	N/A

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.71	0.03	0.28	0.71	2.52			N/A	N/A
B - Dereham Road	0.14	0.03	0.25	0.45	0.48			N/A	N/A
C - A47 West	0.71	0.03	0.28	0.71	2.50			N/A	N/A
D - Church Lane	0.13	0.03	0.25	0.45	0.48			N/A	N/A

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.51	0.51	1.00	1.40	1.45			N/A	N/A
B - Dereham Road	0.10	0.00	0.00	0.10	0.10			N/A	N/A
C - A47 West	0.51	0.51	1.00	1.40	1.45			N/A	N/A
D - Church Lane	0.09	0.00	0.00	0.09	0.09			N/A	N/A

Existing Layout - 2025 - Forecast Background Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A47 West - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D3 - 2025 - Forecast Background Flows, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	A47 / Dereham Road / Church Lane	Standard Roundabout		A, B, C, D	3.28	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	41	D - Church Lane

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D3	2025 - Forecast Background Flows	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 East		ONE HOUR	✓	985	100.000
B - Dereham Road		ONE HOUR	✓	62	100.000
C - A47 West		ONE HOUR	✓	1198	100.000
D - Church Lane		ONE HOUR	✓	163	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A47 East	B - Dereham Road	C - A47 West	D - Church Lane
From	A - A47 East	3	51	874	57
	B - Dereham Road	28	0	26	8
	C - A47 West	1150	37	0	11
	D - Church Lane	121	10	32	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A47 East	B - Dereham Road	C - A47 West	D - Church Lane
From	A - A47 East	0	2	9	0
	B - Dereham Road	0	0	4	0
	C - A47 West	11	9	0	0
	D - Church Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 East	0.39	2.10	0.6	2.7	A	985	985
B - Dereham Road	0.07	4.08	0.1	0.5	A	62	62
C - A47 West	0.57	3.68	1.3	1.9	A	1198	1198
D - Church Lane	0.27	7.52	0.4	1.0	A	163	163

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	885	221	71	2810	0.315	885	1169	0.4	0.5	1.869	A
B - Dereham Road	56	14	868	1061	0.053	56	88	0.0	0.1	3.581	A
C - A47 West	1077	269	86	2310	0.466	1076	837	0.6	0.9	2.916	A
D - Church Lane	147	37	1094	792	0.185	146	68	0.2	0.2	5.568	A

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1085	271	87	2798	0.388	1084	1431	0.5	0.6	2.098	A
B - Dereham Road	68	17	1063	950	0.072	68	108	0.1	0.1	4.082	A
C - A47 West	1319	330	106	2298	0.574	1317	1025	0.9	1.3	3.666	A
D - Church Lane	179	45	1339	659	0.272	179	84	0.2	0.4	7.487	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1085	271	87	2798	0.388	1085	1433	0.6	0.6	2.100	A
B - Dereham Road	68	17	1064	950	0.072	68	108	0.1	0.1	4.084	A
C - A47 West	1319	330	106	2298	0.574	1319	1026	1.3	1.3	3.678	A
D - Church Lane	179	45	1341	658	0.273	179	84	0.4	0.4	7.521	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	885	221	71	2810	0.315	886	1173	0.6	0.5	1.874	A
B - Dereham Road	56	14	869	1060	0.053	56	88	0.1	0.1	3.586	A
C - A47 West	1077	269	86	2310	0.466	1079	839	1.3	0.9	2.930	A
D - Church Lane	147	37	1097	791	0.185	147	68	0.4	0.2	5.598	A

Queue Variation Results for each time segment
06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.46	0.00	0.00	0.46	0.46			N/A	N/A
B - Dereham Road	0.06	0.03	0.25	0.45	0.48			N/A	N/A
C - A47 West	0.87	0.07	0.78	1.47	1.87			N/A	N/A
D - Church Lane	0.23	0.00	0.00	0.23	0.23			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.63	0.03	0.25	0.63	0.63			N/A	N/A
B - Dereham Road	0.08	0.03	0.26	0.47	0.49			N/A	N/A
C - A47 West	1.34	0.03	0.26	1.34	1.34			N/A	N/A
D - Church Lane	0.37	0.03	0.26	0.46	0.48			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.63	0.03	0.29	1.12	2.75			N/A	N/A
B - Dereham Road	0.08	0.00	0.00	0.08	0.08			N/A	N/A
C - A47 West	1.34	0.03	0.26	1.34	1.34			N/A	N/A
D - Church Lane	0.37	0.03	0.33	1.05	1.05			N/A	N/A

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.46	0.00	0.00	0.46	0.46			N/A	N/A
B - Dereham Road	0.06	0.00	0.00	0.06	0.06			N/A	N/A
C - A47 West	0.88	0.53	0.99	1.40	1.45			N/A	N/A
D - Church Lane	0.23	0.00	0.00	0.23	0.23			N/A	N/A

Existing Layout - 2025 - Forecast Background Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A47 West - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D4 - 2025 - Forecast Background Flows, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	A47 / Dereham Road / Church Lane	Standard Roundabout		A, B, C, D	2.68	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	73	B - Dereham Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D4	2025 - Forecast Background Flows	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 East		ONE HOUR	✓	1191	100.000
B - Dereham Road		ONE HOUR	✓	112	100.000
C - A47 West		ONE HOUR	✓	979	100.000
D - Church Lane		ONE HOUR	✓	100	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A47 East	B - Dereham Road	C - A47 West	D - Church Lane
From	A - A47 East	9	18	1075	89
	B - Dereham Road	26	0	63	23
	C - A47 West	915	51	0	13
	D - Church Lane	64	11	25	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - A47 East	B - Dereham Road	C - A47 West	D - Church Lane
A - A47 East	13	0	4	0
B - Dereham Road	0	0	2	0
C - A47 West	5	9	0	0
D - Church Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 East	0.45	2.23	0.8	1.7	A	1191	1191
B - Dereham Road	0.15	4.98	0.2	0.5	A	112	112
C - A47 West	0.45	2.72	0.8	1.8	A	979	979
D - Church Lane	0.13	5.06	0.2	0.5	A	100	100

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1071	268	78	2938	0.364	1070	911	0.4	0.6	1.927	A
B - Dereham Road	101	25	1076	978	0.103	101	72	0.1	0.1	4.101	A
C - A47 West	880	220	132	2419	0.364	880	1045	0.4	0.6	2.338	A
D - Church Lane	90	22	899	926	0.097	90	112	0.1	0.1	4.306	A

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1311	328	96	2924	0.448	1310	1115	0.6	0.8	2.230	A
B - Dereham Road	123	31	1318	846	0.146	123	88	0.1	0.2	4.977	A
C - A47 West	1078	269	162	2399	0.449	1077	1279	0.6	0.8	2.722	A
D - Church Lane	110	28	1101	822	0.134	110	137	0.1	0.2	5.054	A

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1311	328	96	2924	0.448	1311	1116	0.8	0.8	2.231	A
B - Dereham Road	123	31	1319	846	0.146	123	88	0.2	0.2	4.983	A
C - A47 West	1078	269	162	2399	0.449	1078	1280	0.8	0.8	2.725	A
D - Church Lane	110	28	1102	822	0.134	110	138	0.2	0.2	5.059	A

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1071	268	78	2938	0.364	1072	913	0.8	0.6	1.929	A
B - Dereham Road	101	25	1078	977	0.103	101	72	0.2	0.1	4.109	A
C - A47 West	880	220	132	2419	0.364	881	1047	0.8	0.6	2.343	A
D - Church Lane	90	22	901	925	0.097	90	113	0.2	0.1	4.314	A

Queue Variation Results for each time segment
17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.57	0.07	0.72	1.34	1.42			N/A	N/A
B - Dereham Road	0.11	0.00	0.00	0.11	0.11			N/A	N/A
C - A47 West	0.57	0.07	0.74	1.35	1.42			N/A	N/A
D - Church Lane	0.11	0.00	0.00	0.11	0.11			N/A	N/A

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.81	0.03	0.25	0.81	0.81			N/A	N/A
B - Dereham Road	0.17	0.03	0.26	0.46	0.49			N/A	N/A
C - A47 West	0.81	0.03	0.25	0.81	0.81			N/A	N/A
D - Church Lane	0.15	0.03	0.26	0.46	0.49			N/A	N/A

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.81	0.03	0.27	0.81	1.70			N/A	N/A
B - Dereham Road	0.17	0.03	0.25	0.45	0.48			N/A	N/A
C - A47 West	0.81	0.03	0.27	0.81	1.77			N/A	N/A
D - Church Lane	0.15	0.03	0.25	0.45	0.48			N/A	N/A

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.58	0.55	1.00	1.40	1.45			N/A	N/A
B - Dereham Road	0.12	0.00	0.00	0.12	0.12			N/A	N/A
C - A47 West	0.57	0.55	1.00	1.40	1.45			N/A	N/A
D - Church Lane	0.11	0.00	0.00	0.11	0.11			N/A	N/A

Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A47 West - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D5 - 2025 - Forecast Background Flows + SEP or DEP in Isolation , AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	A47 / Dereham Road / Church Lane	Standard Roundabout		A, B, C, D	3.80	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	31	D - Church Lane

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D5	2025 - Forecast Background Flows + SEP or DEP in Isolation	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 East		ONE HOUR	✓	1107	100.000
B - Dereham Road		ONE HOUR	✓	62	100.000
C - A47 West		ONE HOUR	✓	1297	100.000
D - Church Lane		ONE HOUR	✓	163	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A47 East	B - Dereham Road	C - A47 West	D - Church Lane
From	A - A47 East	3	80	967	57
	B - Dereham Road	28	0	26	8
	C - A47 West	1226	60	0	11
	D - Church Lane	121	10	32	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A47 East	B - Dereham Road	C - A47 West	D - Church Lane
From	A - A47 East	0	2	11	0
	B - Dereham Road	1	0	5	0
	C - A47 West	13	26	0	0
	D - Church Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 East	0.45	2.39	0.8	1.8	A	1107	1107
B - Dereham Road	0.08	4.48	0.1	0.5	A	62	62
C - A47 West	0.63	4.37	1.7	3.0	A	1297	1297
D - Church Lane	0.31	8.93	0.4	1.7	A	163	163

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	995	249	92	2742	0.363	995	1237	0.4	0.6	2.060	A
B - Dereham Road	56	14	951	995	0.056	56	135	0.0	0.1	3.830	A
C - A47 West	1166	291	86	2264	0.515	1165	921	0.7	1.1	3.273	A
D - Church Lane	147	37	1183	731	0.200	146	68	0.2	0.2	6.153	A

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1219	305	112	2725	0.447	1218	1514	0.6	0.8	2.387	A
B - Dereham Road	68	17	1165	872	0.078	68	165	0.1	0.1	4.476	A
C - A47 West	1428	357	106	2252	0.634	1425	1128	1.1	1.7	4.343	A
D - Church Lane	179	45	1447	584	0.307	179	84	0.2	0.4	8.863	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1219	305	112	2725	0.447	1219	1517	0.8	0.8	2.389	A
B - Dereham Road	68	17	1166	872	0.078	68	165	0.1	0.1	4.479	A
C - A47 West	1428	357	106	2251	0.634	1428	1129	1.7	1.7	4.371	A
D - Church Lane	179	45	1450	583	0.308	179	84	0.4	0.4	8.928	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	995	249	92	2741	0.363	996	1242	0.8	0.6	2.065	A
B - Dereham Road	56	14	953	994	0.056	56	135	0.1	0.1	3.835	A
C - A47 West	1166	291	86	2264	0.515	1169	922	1.7	1.1	3.294	A
D - Church Lane	147	37	1187	729	0.201	147	68	0.4	0.3	6.196	A

Queue Variation Results for each time segment
06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.57	0.07	0.73	1.35	1.42			N/A	N/A
B - Dereham Road	0.06	0.03	0.25	0.45	0.48			N/A	N/A
C - A47 West	1.05	0.06	0.70	2.16	3.04			N/A	N/A
D - Church Lane	0.25	0.00	0.00	0.25	0.25			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.81	0.03	0.25	0.81	0.81			N/A	N/A
B - Dereham Road	0.08	0.03	0.26	0.47	0.49			N/A	N/A
C - A47 West	1.71	0.03	0.26	1.71	1.71			N/A	N/A
D - Church Lane	0.44	0.03	0.26	0.46	0.49			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.81	0.03	0.27	0.81	1.76			N/A	N/A
B - Dereham Road	0.08	0.00	0.00	0.08	0.08			N/A	N/A
C - A47 West	1.72	0.03	0.26	1.72	1.72			N/A	N/A
D - Church Lane	0.44	0.03	0.33	1.38	1.67			N/A	N/A

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.57	0.55	1.00	1.40	1.45			N/A	N/A
B - Dereham Road	0.06	0.00	0.00	0.06	0.06			N/A	N/A
C - A47 West	1.07	0.32	1.06	1.42	1.73			N/A	N/A
D - Church Lane	0.25	0.00	0.00	0.25	0.25			N/A	N/A

Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A47 West - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D6 - 2025 - Forecast Background Flows + SEP or DEP in Isolation , PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	A47 / Dereham Road / Church Lane	Standard Roundabout		A, B, C, D	3.12	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	49	B - Dereham Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D6	2025 - Forecast Background Flows + SEP or DEP in Isolation	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 East		ONE HOUR	✓	1268	100.000
B - Dereham Road		ONE HOUR	✓	165	100.000
C - A47 West		ONE HOUR	✓	1072	100.000
D - Church Lane		ONE HOUR	✓	100	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A47 East	B - Dereham Road	C - A47 West	D - Church Lane
From	A - A47 East	9	19	1151	89
	B - Dereham Road	56	0	86	23
	C - A47 West	1008	51	0	13
	D - Church Lane	64	11	25	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - A47 East	B - Dereham Road	C - A47 West	D - Church Lane
A - A47 East	13	1	6	0
B - Dereham Road	0	0	16	0
C - A47 West	7	9	0	0
D - Church Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 East	0.49	2.45	0.9	1.5	A	1268	1268
B - Dereham Road	0.25	6.54	0.3	1.4	A	165	165
C - A47 West	0.51	3.15	1.0	1.5	A	1072	1072
D - Church Lane	0.15	5.72	0.2	0.5	A	100	100

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1140	285	78	2879	0.396	1139	1021	0.5	0.7	2.070	A
B - Dereham Road	148	37	1145	866	0.171	148	73	0.1	0.2	5.013	A
C - A47 West	964	241	159	2348	0.411	963	1134	0.5	0.7	2.598	A
D - Church Lane	90	22	1010	858	0.105	90	112	0.1	0.1	4.684	A

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1396	349	96	2865	0.487	1395	1250	0.7	0.9	2.446	A
B - Dereham Road	182	45	1401	732	0.248	181	89	0.2	0.3	6.526	A
C - A47 West	1180	295	195	2324	0.508	1179	1388	0.7	1.0	3.142	A
D - Church Lane	110	28	1236	740	0.149	110	137	0.1	0.2	5.715	A

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1396	349	96	2865	0.487	1396	1252	0.9	0.9	2.450	A
B - Dereham Road	182	45	1403	732	0.248	182	89	0.3	0.3	6.543	A
C - A47 West	1180	295	195	2324	0.508	1180	1389	1.0	1.0	3.147	A
D - Church Lane	110	28	1238	739	0.149	110	138	0.2	0.2	5.724	A

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1140	285	78	2879	0.396	1141	1024	0.9	0.7	2.072	A
B - Dereham Road	148	37	1146	865	0.171	149	73	0.3	0.2	5.031	A
C - A47 West	964	241	159	2347	0.411	965	1136	1.0	0.7	2.606	A
D - Church Lane	90	22	1012	857	0.105	90	113	0.2	0.1	4.695	A

Queue Variation Results for each time segment
17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.65	0.08	0.76	1.36	1.44			N/A	N/A
B - Dereham Road	0.21	0.00	0.00	0.21	0.21			N/A	N/A
C - A47 West	0.69	0.08	0.78	1.38	1.46			N/A	N/A
D - Church Lane	0.12	0.00	0.00	0.12	0.12			N/A	N/A

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.95	0.03	0.25	0.95	0.95			N/A	N/A
B - Dereham Road	0.33	0.03	0.25	0.46	0.48			N/A	N/A
C - A47 West	1.02	0.03	0.25	1.02	1.02			N/A	N/A
D - Church Lane	0.17	0.03	0.26	0.46	0.49			N/A	N/A

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.95	0.03	0.27	0.95	1.24			N/A	N/A
B - Dereham Road	0.33	0.03	0.32	1.11	1.37			N/A	N/A
C - A47 West	1.03	0.03	0.27	1.03	1.10			N/A	N/A
D - Church Lane	0.17	0.03	0.25	0.45	0.48			N/A	N/A

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.66	0.55	1.00	1.40	1.45			N/A	N/A
B - Dereham Road	0.21	0.00	0.00	0.21	0.21			N/A	N/A
C - A47 West	0.70	0.55	1.00	1.40	1.45			N/A	N/A
D - Church Lane	0.12	0.00	0.00	0.12	0.12			N/A	N/A

Existing Layout - 2025 - Forecast Background Flows + SEP and DEP , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A47 West - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D7 - 2025 - Forecast Background Flows + SEP and DEP , AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	A47 / Dereham Road / Church Lane	Standard Roundabout		A, B, C, D	4.02	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	27	D - Church Lane

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D7	2025 - Forecast Background Flows + SEP and DEP	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 East		ONE HOUR	✓	1158	100.000
B - Dereham Road		ONE HOUR	✓	82	100.000
C - A47 West		ONE HOUR	✓	1326	100.000
D - Church Lane		ONE HOUR	✓	163	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A47 East	B - Dereham Road	C - A47 West	D - Church Lane
From	A - A47 East	3	85	1013	57
	B - Dereham Road	35	0	39	8
	C - A47 West	1256	59	0	11
	D - Church Lane	121	10	32	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - A47 East	B - Dereham Road	C - A47 West	D - Church Lane
A - A47 East	0	9	11	0
B - Dereham Road	20	0	37	0
C - A47 West	13	25	0	0
D - Church Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 East	0.47	2.49	0.9	1.5	A	1158	1158
B - Dereham Road	0.13	6.02	0.2	0.5	A	82	82
C - A47 West	0.65	4.60	1.9	3.5	A	1326	1326
D - Church Lane	0.32	9.52	0.5	1.8	A	163	163

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1041	260	91	2738	0.380	1040	1271	0.5	0.6	2.121	A
B - Dereham Road	74	18	993	793	0.093	74	138	0.1	0.1	5.005	A
C - A47 West	1192	298	93	2257	0.528	1191	974	0.8	1.1	3.372	A
D - Church Lane	147	37	1215	711	0.206	146	68	0.2	0.3	6.371	A

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1275	319	111	2721	0.469	1274	1554	0.6	0.9	2.486	A
B - Dereham Road	90	23	1215	689	0.131	90	169	0.1	0.1	6.011	A
C - A47 West	1460	365	113	2243	0.651	1457	1192	1.1	1.8	4.563	A
D - Church Lane	179	45	1487	559	0.321	179	84	0.3	0.5	9.434	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1275	319	111	2721	0.469	1275	1558	0.9	0.9	2.489	A
B - Dereham Road	90	23	1217	688	0.131	90	170	0.1	0.2	6.018	A
C - A47 West	1460	365	113	2243	0.651	1460	1193	1.8	1.9	4.598	A
D - Church Lane	179	45	1490	558	0.322	179	84	0.5	0.5	9.516	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1041	260	91	2737	0.380	1042	1275	0.9	0.6	2.126	A
B - Dereham Road	74	18	995	792	0.093	74	139	0.2	0.1	5.013	A
C - A47 West	1192	298	93	2257	0.528	1195	976	1.9	1.1	3.399	A
D - Church Lane	147	37	1219	708	0.207	147	68	0.5	0.3	6.427	A

Queue Variation Results for each time segment
06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.61	0.08	0.76	1.35	1.43			N/A	N/A
B - Dereham Road	0.10	0.00	0.00	0.10	0.10			N/A	N/A
C - A47 West	1.11	0.05	0.65	2.44	3.52			N/A	N/A
D - Church Lane	0.26	0.00	0.00	0.26	0.26			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.88	0.03	0.25	0.88	0.88			N/A	N/A
B - Dereham Road	0.15	0.03	0.26	0.46	0.49			N/A	N/A
C - A47 West	1.84	0.03	0.26	1.84	1.84			N/A	N/A
D - Church Lane	0.47	0.03	0.26	0.47	0.49			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.88	0.03	0.27	0.88	1.17			N/A	N/A
B - Dereham Road	0.15	0.03	0.25	0.45	0.48			N/A	N/A
C - A47 West	1.85	0.03	0.26	1.85	1.85			N/A	N/A
D - Church Lane	0.47	0.03	0.32	1.43	1.85			N/A	N/A

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.62	0.55	1.00	1.40	1.45			N/A	N/A
B - Dereham Road	0.10	0.00	0.00	0.10	0.10			N/A	N/A
C - A47 West	1.13	0.24	1.09	1.62	1.87			N/A	N/A
D - Church Lane	0.26	0.00	0.00	0.26	0.26			N/A	N/A

Existing Layout - 2025 - Forecast Background Flows + SEP and DEP , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A47 West - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D8 - 2025 - Forecast Background Flows + SEP and DEP , PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	A47 / Dereham Road / Church Lane	Standard Roundabout		A, B, C, D	3.36	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	44	B - Dereham Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D8	2025 - Forecast Background Flows + SEP and DEP	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 East		ONE HOUR	✓	1305	100.000
B - Dereham Road		ONE HOUR	✓	169	100.000
C - A47 West		ONE HOUR	✓	1132	100.000
D - Church Lane		ONE HOUR	✓	100	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A47 East	B - Dereham Road	C - A47 West	D - Church Lane
From	A - A47 East	9	25	1182	89
	B - Dereham Road	61	0	85	23
	C - A47 West	1055	64	0	13
	D - Church Lane	64	11	25	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A47 East	B - Dereham Road	C - A47 West	D - Church Lane
From	A - A47 East	13	27	6	0
	B - Dereham Road	12	0	15	0
	C - A47 West	7	27	0	0
	D - Church Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 East	0.51	2.58	1.0	1.5	A	1305	1305
B - Dereham Road	0.27	7.11	0.4	1.5	A	169	169
C - A47 West	0.54	3.43	1.2	1.5	A	1132	1132
D - Church Lane	0.16	6.18	0.2	0.5	A	100	100

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1173	293	90	2851	0.412	1172	1068	0.5	0.7	2.143	A
B - Dereham Road	152	38	1172	825	0.184	152	90	0.2	0.2	5.343	A
C - A47 West	1018	254	163	2322	0.438	1017	1161	0.6	0.8	2.757	A
D - Church Lane	90	22	1068	821	0.110	90	112	0.1	0.1	4.926	A

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1437	359	110	2833	0.507	1436	1307	0.7	1.0	2.573	A
B - Dereham Road	186	47	1435	693	0.269	186	110	0.2	0.4	7.087	A
C - A47 West	1246	312	200	2297	0.543	1245	1421	0.8	1.2	3.418	A
D - Church Lane	110	28	1307	693	0.159	110	137	0.1	0.2	6.165	A

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1437	359	110	2833	0.507	1437	1309	1.0	1.0	2.577	A
B - Dereham Road	186	47	1437	692	0.269	186	110	0.4	0.4	7.111	A
C - A47 West	1246	312	200	2296	0.543	1246	1423	1.2	1.2	3.427	A
D - Church Lane	110	28	1309	692	0.159	110	138	0.2	0.2	6.180	A

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1173	293	90	2851	0.412	1174	1071	1.0	0.7	2.149	A
B - Dereham Road	152	38	1175	824	0.184	152	90	0.4	0.2	5.363	A
C - A47 West	1018	254	164	2321	0.438	1019	1163	1.2	0.8	2.767	A
D - Church Lane	90	22	1071	819	0.110	90	113	0.2	0.1	4.941	A

Queue Variation Results for each time segment
17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.70	0.07	0.76	1.39	1.47			N/A	N/A
B - Dereham Road	0.22	0.00	0.00	0.22	0.22			N/A	N/A
C - A47 West	0.78	0.07	0.78	1.46	1.46			N/A	N/A
D - Church Lane	0.12	0.00	0.00	0.12	0.12			N/A	N/A

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	1.02	0.03	0.25	1.02	1.02			N/A	N/A
B - Dereham Road	0.36	0.03	0.25	0.46	0.48			N/A	N/A
C - A47 West	1.18	0.03	0.26	1.18	1.18			N/A	N/A
D - Church Lane	0.19	0.03	0.26	0.46	0.49			N/A	N/A

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	1.03	0.03	0.26	1.03	1.03			N/A	N/A
B - Dereham Road	0.37	0.03	0.33	1.22	1.49			N/A	N/A
C - A47 West	1.18	0.03	0.26	1.18	1.18			N/A	N/A
D - Church Lane	0.19	0.03	0.25	0.45	0.48			N/A	N/A

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	0.70	0.55	1.00	1.40	1.45			N/A	N/A
B - Dereham Road	0.23	0.00	0.00	0.23	0.23			N/A	N/A
C - A47 West	0.78	0.55	1.00	1.40	1.45			N/A	N/A
D - Church Lane	0.12	0.00	0.00	0.12	0.12			N/A	N/A

Junctions 9
PICADY 9 - Priority Intersection Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
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Filename: Junction 4 - Existing Layout - Construction Peaks.j9
Path: C:\Users\921707\Box\PB8164 Equinor DOW SS Ext\PB8164 Team\PB8164 Technical Data\E08 Transport\TD\Calcs\Modelling\J4
Report generation date: 14/04/2023 10:51:28

- » Existing Layout - 2021 - Network Peak - Baseline , AM
- » Existing Layout - 2021 - Network Peak - Baseline , PM
- » Existing Layout - 2025 - Forecast Background flows, AM
- » Existing Layout - 2025 - Forecast Background flows, PM
- » Existing Layout - 2025 - Forecast Background flows + SEP or DEP in Isolation , AM
- » Existing Layout - 2025 - Forecast Background flows + SEP or DEP in Isolation , PM
- » Existing Layout - 2025 - Forecast Background flows + SEP and DEP , AM
- » Existing Layout - 2025 - Forecast Background flows + SEP and DEP , PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Existing Layout - 2021 - Network Peak - Baseline														
Stream B-AC	0.1	13.64	0.10	B	0.34	A	82 %	0.0	7.27	0.02	A	0.05	A	159 %
Stream C-AB	0.0	0.00	0.00	A			[Stream B-AC]	0.0	0.00	0.00	A			[Stream B-AC]
Existing Layout - 2025 - Forecast Background flows														
Stream B-AC	0.1	14.48	0.11	B	0.36	A	69 %	0.0	7.58	0.02	A	0.05	A	140 %
Stream C-AB	0.0	0.00	0.00	A			[Stream B-AC]	0.0	0.00	0.00	A			[Stream B-AC]
Existing Layout - 2025 - Forecast Background flows + SEP or DEP in Isolation														
Stream B-AC	0.2	15.37	0.14	C	0.44	A	60 %	0.3	8.90	0.20	A	0.48	A	81 %
Stream C-AB	0.0	0.00	0.00	A			[Stream B-AC]	0.0	0.00	0.00	A			[Stream B-AC]
Existing Layout - 2025 - Forecast Background flows + SEP and DEP														
Stream B-AC	0.2	16.44	0.17	C	0.55	A	52 %	0.5	11.00	0.34	B	0.95	A	52 %
Stream C-AB	0.0	0.00	0.00	A			[Stream B-AC]	0.0	0.00	0.00	A			[Stream B-AC]

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

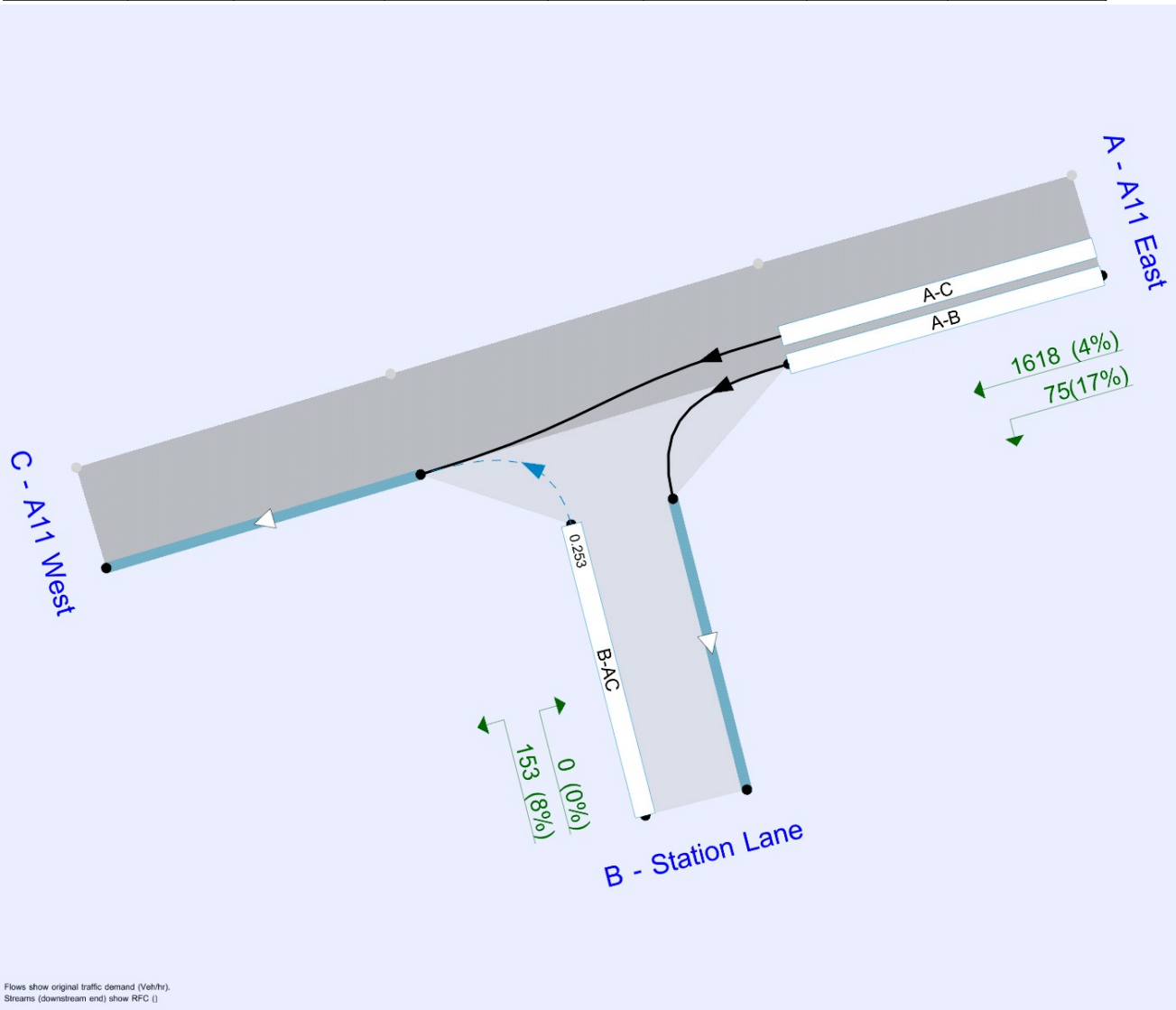
File summary

File Description

Title	Junction 4
Location	A11 / Station Lane
Site number	4
Date	16/03/2022
Version	1
Status	Existing Layout
Identifier	
Client	Equinor
Jobnumber	PB8164
Enumerator	CORPORATEROOT\921707
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓		✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021 - Network Peak - Baseline	AM	ONE HOUR	06:15	07:45	15	✓	✓
D2	2021 - Network Peak - Baseline	PM	ONE HOUR	17:10	18:40	15	✓	✓
D3	2025 - Forecast Background flows	AM	ONE HOUR	06:15	07:45	15	✓	✓
D4	2025 - Forecast Background flows	PM	ONE HOUR	17:10	18:40	15	✓	✓
D5	2025 - Forecast Background flows + SEP or DEP in Isolation	AM	ONE HOUR	06:15	07:45	15	✓	✓
D6	2025 - Forecast Background flows + SEP or DEP in Isolation	PM	ONE HOUR	17:10	18:40	15	✓	✓
D7	2025 - Forecast Background flows + SEP and DEP	AM	ONE HOUR	06:15	07:45	15	✓	✓
D8	2025 - Forecast Background flows + SEP and DEP	PM	ONE HOUR	17:10	18:40	15	✓	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A4	Existing Layout	✓	100.000	100.000

Existing Layout - 2021 - Network Peak - Baseline , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D1 - 2021 - Network Peak - Baseline , AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	A11 / Station Lane	T-Junction	One-way from A to C		0.34	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	82	Stream B-AC

Arms

Arms

Arm	Name	Description	Arm type
A	A11 East		Major
B	Station Lane		Minor
C	A11 West		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A11 West	9.00				✓	

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	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Station Lane	One lane	5.00	240	100

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
4	B-A	731	0.064	0.161	0.101	0.230
4	B-C	824	0.060	0.153	-	-
4	C-B	574	0.106	0.106	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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)	Results for central hour only	Run automatically
D1	2021 - Network Peak - Baseline	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A11 East		ONE HOUR	✓	1742	100.000
B - Station Lane		ONE HOUR	✓	27	100.000
C - A11 West		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A11 East	B - Station Lane	C - A11 West
From	A - A11 East	0	82	1660
	B - Station Lane	0	0	27
	C - A11 West	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A11 East	B - Station Lane	C - A11 West
From	A - A11 East	0	9	6
	B - Station Lane	0	0	78
	C - A11 West	9	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.10	13.64	0.1	0.5	B	27	27
C-AB	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
A-B						82	82
A-C						1660	1660

Main Results for each time segment

06:30 - 06:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	24	6	325	0.075	24	0.1	0.1	11.970	B
C-AB	0	0	379	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	74	18			74				
A-C	1492	373			1492				

06:45 - 07:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	30	7	294	0.101	30	0.1	0.1	13.626	B
C-AB	0	0	341	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	90	23			90				
A-C	1828	457			1828				

07:00 - 07:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	30	7	294	0.101	30	0.1	0.1	13.637	B
C-AB	0	0	341	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	90	23			90				
A-C	1828	457			1828				

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	24	6	325	0.075	24	0.1	0.1	11.984	B
C-AB	0	0	379	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	74	18			74				
A-C	1492	373			1492				

Queue Variation Results for each time segment

06:30 - 06:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.08	0.03	0.26	0.47	0.50			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

06:45 - 07:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.11	0.03	0.26	0.47	0.50			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

07:00 - 07:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.11	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

07:15 - 07:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.08	0.00	0.00	0.08	0.08			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Existing Layout - 2021 - Network Peak - Baseline , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2021 - Network Peak - Baseline , PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	A11 / Station Lane	T-Junction	One-way from A to C		0.05	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	159	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D2	2021 - Network Peak - Baseline	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A11 East		ONE HOUR	✓	1554	100.000
B - Station Lane		ONE HOUR	✓	9	100.000
C - A11 West		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A11 East	B - Station Lane	C - A11 West
A - A11 East	0	59	1495
B - Station Lane	0	0	9
C - A11 West	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A11 East	B - Station Lane	C - A11 West
From	A - A11 East	0	2	3
	B - Station Lane	0	0	11
	C - A11 West	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.02	7.27	0.0	0.5	A	9	9
C-AB	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
A-B						59	59
A-C						1495	1495

Main Results for each time segment

17:25 - 17:40

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	8	2	548	0.015	8	0.0	0.0	6.662	A
C-AB	0	0	415	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	53	13			53				
A-C	1344	336			1344				

17:40 - 17:55

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	10	2	505	0.020	10	0.0	0.0	7.273	A
C-AB	0	0	381	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	65	16			65				
A-C	1646	412			1646				

17:55 - 18:10

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	10	2	505	0.020	10	0.0	0.0	7.273	A
C-AB	0	0	381	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	65	16			65				
A-C	1646	412			1646				

18:10 - 18:25

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	8	2	548	0.015	8	0.0	0.0	6.663	A
C-AB	0	0	415	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	53	13			53				
A-C	1344	336			1344				

Queue Variation Results for each time segment

17:25 - 17:40

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.01	0.25	0.45	0.48			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:40 - 17:55

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:55 - 18:10

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

18:10 - 18:25

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Existing Layout - 2025 - Forecast Background flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D3 - 2025 - Forecast Background flows, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	A11 / Station Lane	T-Junction	One-way from A to C		0.36	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	69	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D3	2025 - Forecast Background flows	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A11 East		ONE HOUR	✓	1877	100.000
B - Station Lane		ONE HOUR	✓	29	100.000
C - A11 West		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A11 East	B - Station Lane	C - A11 West
A - A11 East	0	88	1789
B - Station Lane	0	0	29
C - A11 West	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A11 East	B - Station Lane	C - A11 West
From	A - A11 East	0	9	6
	B - Station Lane	0	0	78
	C - A11 West	9	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.11	14.48	0.1	0.5	B	29	29
C-AB	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
A-B						88	88
A-C						1789	1789

Main Results for each time segment

06:30 - 06:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	26	7	314	0.083	26	0.1	0.1	12.490	B
C-AB	0	0	366	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	79	20			79				
A-C	1608	402			1608				

06:45 - 07:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	32	8	281	0.114	32	0.1	0.1	14.464	B
C-AB	0	0	325	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	97	24			97				
A-C	1970	492			1970				

07:00 - 07:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	32	8	281	0.114	32	0.1	0.1	14.481	B
C-AB	0	0	325	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	97	24			97				
A-C	1970	492			1970				

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	26	7	314	0.083	26	0.1	0.1	12.509	B
C-AB	0	0	366	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	79	20			79				
A-C	1608	402			1608				

Queue Variation Results for each time segment

06:30 - 06:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.09	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

06:45 - 07:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.13	0.03	0.26	0.47	0.50			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

07:00 - 07:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.13	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

07:15 - 07:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.09	0.00	0.00	0.09	0.09			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Existing Layout - 2025 - Forecast Background flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D4 - 2025 - Forecast Background flows, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	A11 / Station Lane	T-Junction	One-way from A to C		0.05	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	140	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D4	2025 - Forecast Background flows	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A11 East		ONE HOUR	✓	1678	100.000
B - Station Lane		ONE HOUR	✓	10	100.000
C - A11 West		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A11 East	B - Station Lane	C - A11 West
From	A - A11 East	0	64	1614
	B - Station Lane	0	0	10
	C - A11 West	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A11 East	B - Station Lane	C - A11 West
From	A - A11 East	0	2	3
	B - Station Lane	0	0	11
	C - A11 West	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.02	7.58	0.0	0.5	A	10	10
C-AB	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
A-B						64	64
A-C						1614	1614

Main Results for each time segment

17:25 - 17:40

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	9	2	533	0.017	9	0.0	0.0	6.870	A
C-AB	0	0	403	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	58	14			58				
A-C	1451	363			1451				

17:40 - 17:55

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	11	3	486	0.023	11	0.0	0.0	7.579	A
C-AB	0	0	366	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	70	18			70				
A-C	1777	444			1777				

17:55 - 18:10

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	11	3	486	0.023	11	0.0	0.0	7.579	A
C-AB	0	0	366	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	70	18			70				
A-C	1777	444			1777				

18:10 - 18:25

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	9	2	533	0.017	9	0.0	0.0	6.873	A
C-AB	0	0	403	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	58	14			58				
A-C	1451	363			1451				

Queue Variation Results for each time segment

17:25 - 17:40

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.02	0.25	0.45	0.48			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:40 - 17:55

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:55 - 18:10

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

18:10 - 18:25

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Existing Layout - 2025 - Forecast Background flows + SEP or DEP in Isolation , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D5 - 2025 - Forecast Background flows + SEP or DEP in Isolation , AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	A11 / Station Lane	T-Junction	One-way from A to C		0.44	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	60	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D5	2025 - Forecast Background flows + SEP or DEP in Isolation	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A11 East		ONE HOUR	✓	1968	100.000
B - Station Lane		ONE HOUR	✓	34	100.000
C - A11 West		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A11 East	B - Station Lane	C - A11 West
From	A - A11 East	0	172	1796
	B - Station Lane	0	0	34
	C - A11 West	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A11 East	B - Station Lane	C - A11 West
A - A11 East	0	7	6
B - Station Lane	0	0	81
C - A11 West	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.14	15.37	0.2	0.5	C	34	34
C-AB	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
A-B						172	172
A-C						1796	1796

Main Results for each time segment

06:30 - 06:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	31	8	305	0.100	30	0.1	0.1	13.083	B
C-AB	0	0	369	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	155	39			155				
A-C	1615	404			1615				

06:45 - 07:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	37	9	272	0.138	37	0.1	0.2	15.351	C
C-AB	0	0	324	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	189	47			189				
A-C	1977	494			1977				

07:00 - 07:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	37	9	272	0.138	37	0.2	0.2	15.374	C
C-AB	0	0	324	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	189	47			189				
A-C	1977	494			1977				

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	31	8	305	0.100	31	0.2	0.1	13.117	B
C-AB	0	0	369	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	155	39			155				
A-C	1615	404			1615				

Queue Variation Results for each time segment

06:30 - 06:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.11	0.00	0.00	0.11	0.11			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

06:45 - 07:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.16	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

07:00 - 07:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.16	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

07:15 - 07:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.11	0.00	0.00	0.11	0.11			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Existing Layout - 2025 - Forecast Background flows + SEP or DEP in Isolation , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - 2025 - Forecast Background flows + SEP or DEP in Isolation , PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	A11 / Station Lane	T-Junction	One-way from A to C		0.48	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	81	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D6	2025 - Forecast Background flows + SEP or DEP in Isolation	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A11 East		ONE HOUR	✓	1685	100.000
B - Station Lane		ONE HOUR	✓	94	100.000
C - A11 West		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A11 East	B - Station Lane	C - A11 West
From	A - A11 East	0	68	1617
	B - Station Lane	0	0	94
	C - A11 West	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A11 East	B - Station Lane	C - A11 West
From	A - A11 East	0	8	4
	B - Station Lane	0	0	6
	C - A11 West	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.20	8.90	0.3	1.2	A	94	94
C-AB	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
A-B						68	68
A-C						1617	1617

Main Results for each time segment

17:25 - 17:40

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	85	21	557	0.152	84	0.1	0.2	7.610	A
C-AB	0	0	401	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	61	15			61				
A-C	1454	363			1454				

17:40 - 17:55

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	103	26	508	0.204	103	0.2	0.3	8.892	A
C-AB	0	0	364	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	75	19			75				
A-C	1780	445			1780				

17:55 - 18:10

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	103	26	508	0.204	103	0.3	0.3	8.904	A
C-AB	0	0	364	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	75	19			75				
A-C	1780	445			1780				

18:10 - 18:25

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	85	21	557	0.152	85	0.3	0.2	7.622	A
C-AB	0	0	401	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	61	15			61				
A-C	1454	363			1454				

Queue Variation Results for each time segment

17:25 - 17:40

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.18	0.00	0.00	0.18	0.18			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:40 - 17:55

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.25	0.03	0.26	0.46	0.49			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:55 - 18:10

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.25	0.03	0.29	0.83	1.18			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

18:10 - 18:25

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.18	0.00	0.00	0.18	0.18			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Existing Layout - 2025 - Forecast Background flows + SEP and DEP , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D7 - 2025 - Forecast Background flows + SEP and DEP , AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	A11 / Station Lane	T-Junction	One-way from A to C		0.55	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	52	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D7	2025 - Forecast Background flows + SEP and DEP	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A11 East		ONE HOUR	✓	2029	100.000
B - Station Lane		ONE HOUR	✓	41	100.000
C - A11 West		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A11 East	B - Station Lane	C - A11 West
A - A11 East	0	232	1797
B - Station Lane	0	0	41
C - A11 West	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A11 East	B - Station Lane	C - A11 West
A - A11 East	0	8	6
B - Station Lane	0	0	84
C - A11 West	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.17	16.44	0.2	0.9	C	41	41
C-AB	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
A-B						232	232
A-C						1797	1797

Main Results for each time segment

06:30 - 06:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	37	9	298	0.124	37	0.1	0.1	13.784	B
C-AB	0	0	362	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	209	52			209				
A-C	1615	404			1615				

06:45 - 07:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	45	11	264	0.171	45	0.1	0.2	16.398	C
C-AB	0	0	317	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	255	64			255				
A-C	1979	495			1979				

07:00 - 07:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	45	11	264	0.171	45	0.2	0.2	16.441	C
C-AB	0	0	317	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	255	64			255				
A-C	1979	495			1979				

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	37	9	298	0.124	37	0.2	0.1	13.823	B
C-AB	0	0	362	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	209	52			209				
A-C	1615	404			1615				

Queue Variation Results for each time segment

06:30 - 06:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.14	0.00	0.00	0.14	0.14			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

06:45 - 07:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.20	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

07:00 - 07:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.20	0.03	0.27	0.49	0.90			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

07:15 - 07:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.14	0.00	0.00	0.14	0.14			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Existing Layout - 2025 - Forecast Background flows + SEP and DEP , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D8 - 2025 - Forecast Background flows + SEP and DEP , PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	A11 / Station Lane	T-Junction	One-way from A to C		0.95	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	52	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D8	2025 - Forecast Background flows + SEP and DEP	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A11 East		ONE HOUR	✓	1693	100.000
B - Station Lane		ONE HOUR	✓	153	100.000
C - A11 West		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A11 East	B - Station Lane	C - A11 West
A - A11 East	0	75	1618
B - Station Lane	0	0	153
C - A11 West	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A11 East	B - Station Lane	C - A11 West
A - A11 East	0	17	4
B - Station Lane	0	0	8
C - A11 West	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.34	11.00	0.5	2.3	B	153	153
C-AB	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
A-B						75	75
A-C						1618	1618

Main Results for each time segment

17:25 - 17:40

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	138	34	544	0.253	137	0.2	0.3	8.838	A
C-AB	0	0	400	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	67	17			67				
A-C	1455	364			1455				

17:40 - 17:55

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	168	42	495	0.340	168	0.3	0.5	10.962	B
C-AB	0	0	363	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	83	21			83				
A-C	1781	445			1781				

17:55 - 18:10

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	168	42	495	0.340	168	0.5	0.5	11.005	B
C-AB	0	0	363	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	83	21			83				
A-C	1781	445			1781				

18:10 - 18:25

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	138	34	544	0.253	138	0.5	0.3	8.884	A
C-AB	0	0	400	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	67	17			67				
A-C	1455	364			1455				

Queue Variation Results for each time segment

17:25 - 17:40

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.33	0.00	0.00	0.33	0.33			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:40 - 17:55

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.51	0.03	0.26	0.51	0.51			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:55 - 18:10

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.51	0.03	0.30	1.40	2.33			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

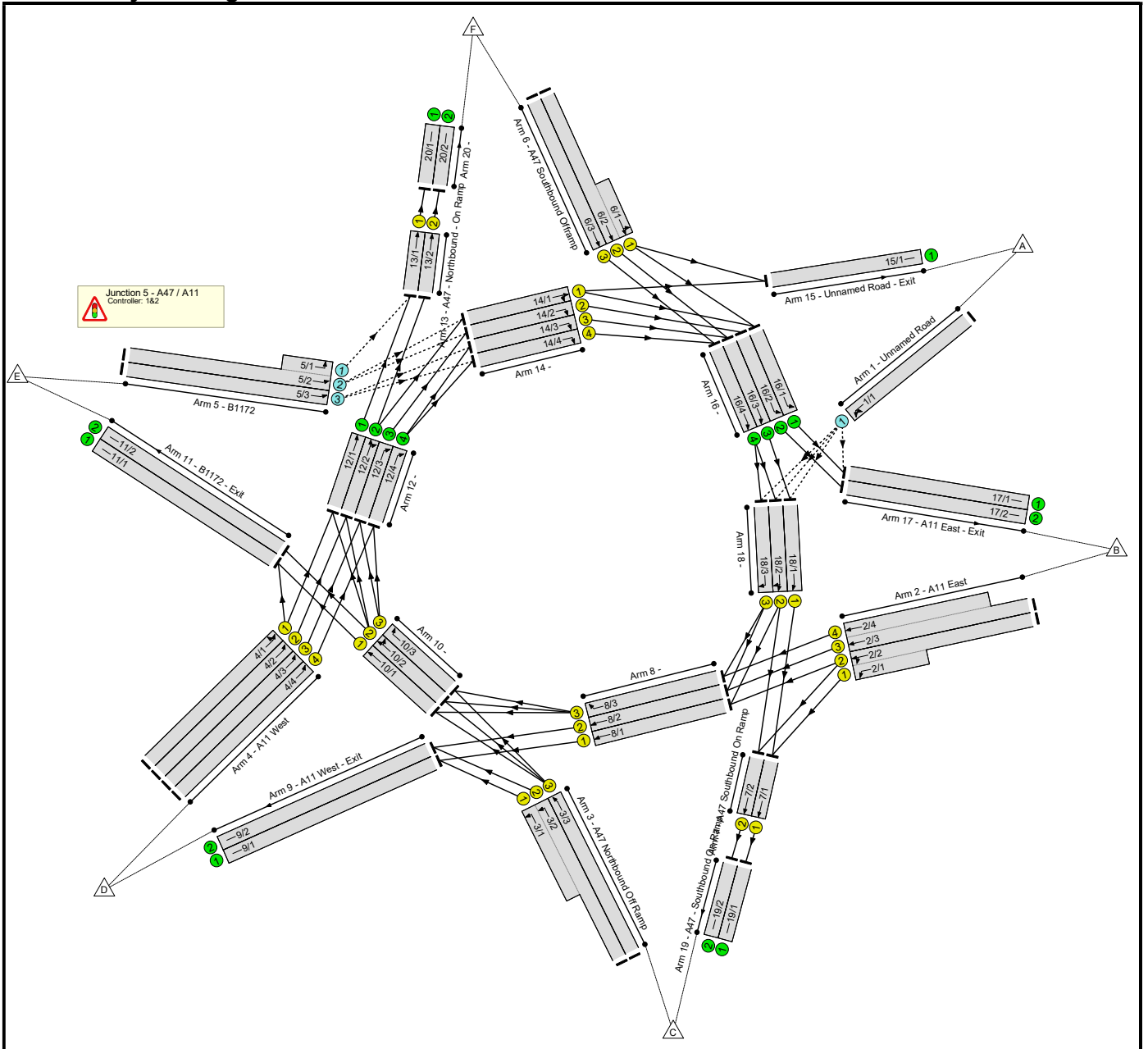
18:10 - 18:25

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.34	0.00	0.00	0.34	0.34			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

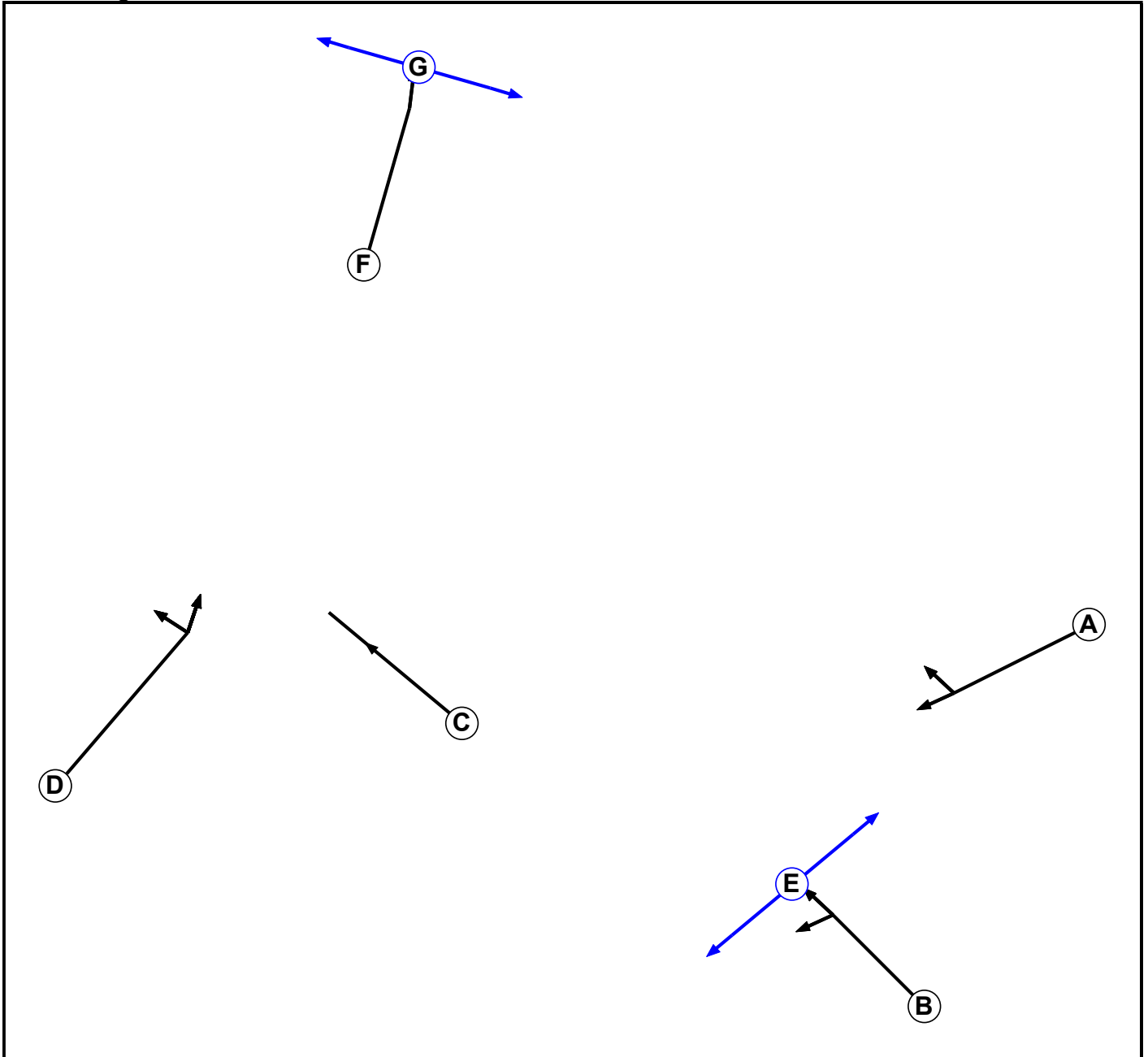
Full Input Data And Results**User and Project Details**

Project:	Dudgeon and Sheringham Extensions Projects
Title:	Junction 5 - A47 / A11 Grade Separated Roundabout
Location:	
Client:	Equinor
Design Layout Ref:	Existing Layout
Date Started:	21.03.22
Date Completed:	11.05.22
Model Purpose:	Assessment of Impacts
Additional detail:	
File name:	Junction 5 - Construction Peak.lsg3x
Author:	Ryan Eldon
Company:	Royal HaskoningDHV
Address:	Peterborough

Network Layout Diagram



**C1 - West Controller
Phase Diagram**



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Pedestrian		7	7
F	Traffic		7	7
G	Pedestrian		7	7

Full Input Data And Results

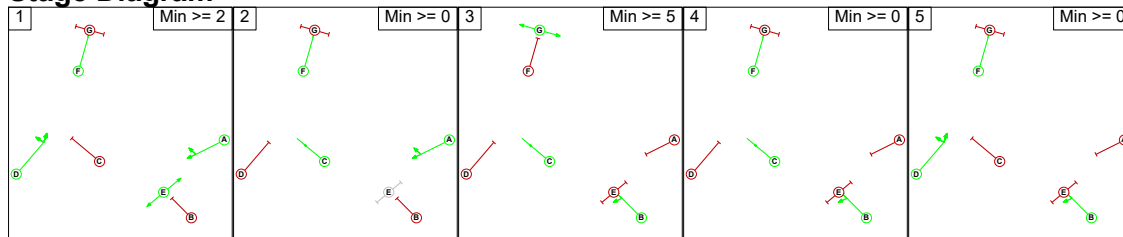
Phase Intergrens Matrix

		Starting Phase						
		A	B	C	D	E	F	G
Terminating Phase	A		5	-	-	-	-	-
	B	7		-	-	7	-	-
	C	-	-		5	-	-	-
	D	-	-	7		-	-	-
	E	-	5	-	-		-	-
	F	-	-	-	-	-		5
	G	-	-	-	-	-	8	

Phases in Stage

Stage No.	Phases in Stage
1	A D E F
2	A C F
3	B C G
4	B C F
5	B D F

Stage Diagram



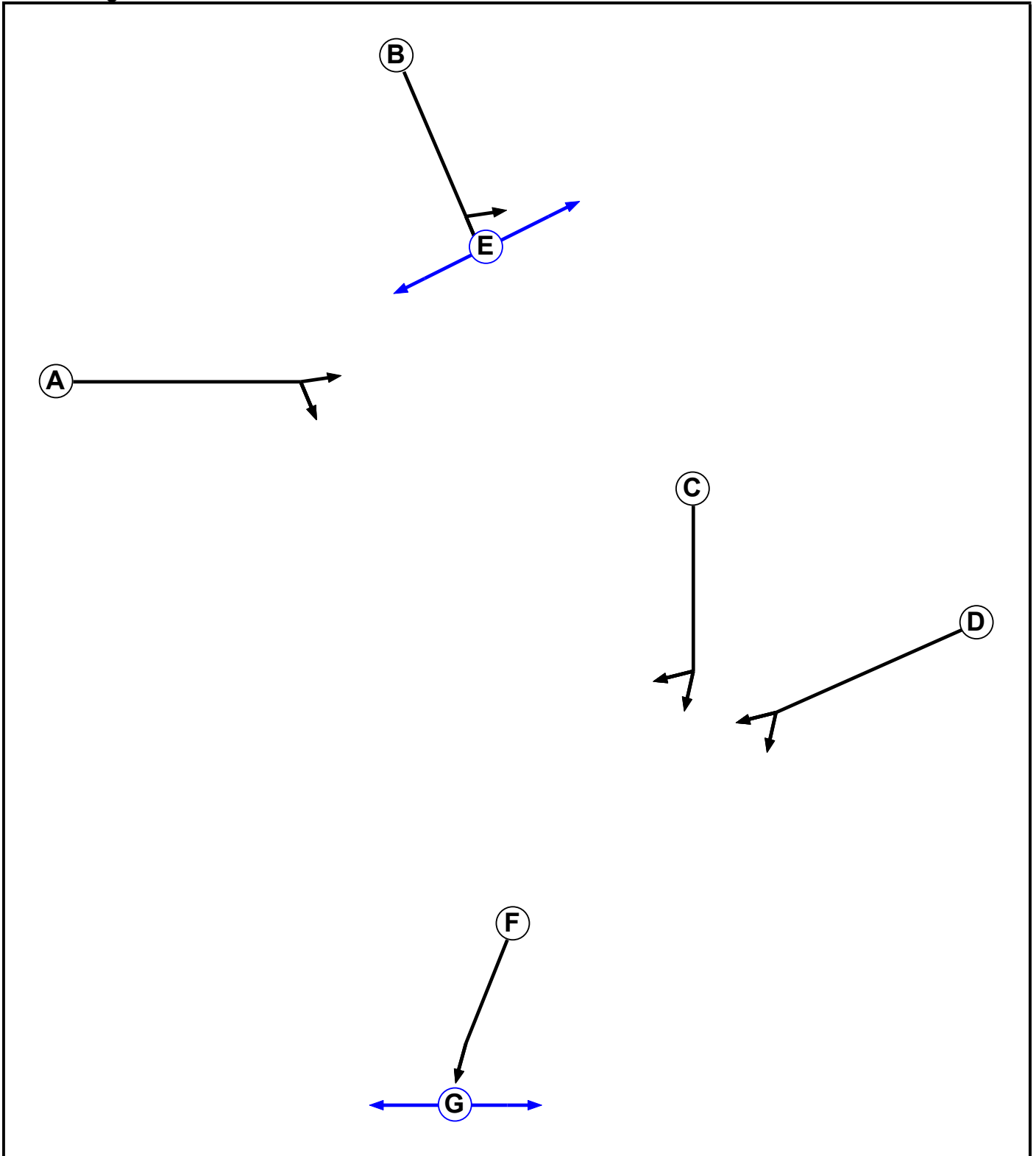
Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

		To Stage				
		1	2	3	4	5
From Stage	1		7	7	7	5
	2	5		5	5	5
	3	8	8		8	8
	4	7	7	5		5
	5	7	7	7	7	

**C2 - East Controller
Phase Diagram**



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Pedestrian		7	7
F	Traffic		7	7
G	Pedestrian		7	7

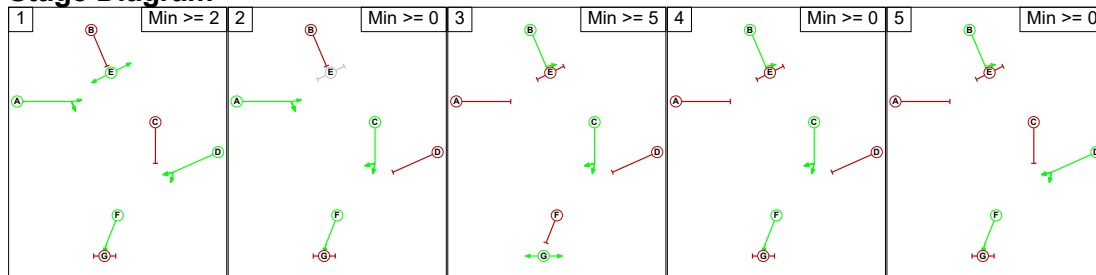
Phase Intergreens Matrix

		Starting Phase						
		A	B	C	D	E	F	G
Terminating Phase	A		5	-	-	-	-	-
	B	8		-	-	7	-	-
	C	-	-		5	-	-	-
	D	-	-	7		-	-	-
	E	-	5	-	-		-	-
	F	-	-	-	-	-		5
	G	-	-	-	-	-	10	

Phases in Stage

Stage No.	Phases in Stage
1	A D E F
2	A C F
3	B C G
4	B C F
5	B D F

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Full Input Data And Results

Prohibited Stage Change

		To Stage				
		1	2	3	4	5
From Stage	1	7	7	7	5	
	2	5	5	5	5	
	3	10	10	10	10	
	4	8	8	5	5	
	5	8	8	7	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Junction 5 - A47 / A11											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/1 (Unnamed Road)	17/1 (Left)	1439	0	16/1	1.09	All	-	-	-	-	-
				16/1	1.09	All					
	18/1 (Left)	1439	0	16/2	1.09	All					
				16/3	1.09	All					
				16/1	1.09	All					
	18/2 (Left)	1439	0	16/2	1.09	All					
				16/3	1.09	All					
				16/4	1.09	All					
				16/1	1.09	All					
	18/3 (Left)	1439	0	16/2	1.09	All					
				16/3	1.09	All					
				16/4	1.09	All					
16/1				1.09	All						
5/1 (B1172)	13/1 (Left)	1439	0	12/1	1.09	All	-	-	-	-	-
5/2 (B1172)	14/1 (Ahead)	1439	0	12/1	1.09	All	-	-	-	-	-
				12/2	1.09	All					
				12/3	1.09	All					
	14/2 (Ahead)	1439	0	12/1	1.09	All					
				12/2	1.09	All					
				12/3	1.09	All					
5/3 (B1172)	14/3 (Ahead)	1439	0	12/1	1.09	All	-	-	-	-	-
				12/2	1.09	All					
				12/3	1.09	All					
				12/4	1.09	All					

Full Input Data And Results

				12/1	1.09	All					
	14/4 (Ahead)	1439	0	12/2	1.09	All					
				12/3	1.09	All					
				12/4	1.09	All					

Full Input Data And Results

Lane Input Data

Junction: Junction 5 - A47 / A11												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Unnamed Road)	O		2	3	60.0	User	1900	-	-	-	-	-
2/1 (A11 East)	U	D	2	3	7.8	User	1900	-	-	-	-	-
2/2 (A11 East)	U	D	2	3	60.0	User	1900	-	-	-	-	-
2/3 (A11 East)	U	D	2	3	60.0	User	1900	-	-	-	-	-
2/4 (A11 East)	U	D	2	3	16.9	User	1900	-	-	-	-	-
3/1 (A47 Northbound Off Ramp)	U	B	2	3	10.4	User	1900	-	-	-	-	-
3/2 (A47 Northbound Off Ramp)	U	B	2	3	60.0	User	1900	-	-	-	-	-
3/3 (A47 Northbound Off Ramp)	U	B	2	3	60.0	User	1900	-	-	-	-	-
4/1 (A11 West)	U	D	2	3	13.9	User	1900	-	-	-	-	-
4/2 (A11 West)	U	D	2	3	60.0	User	1900	-	-	-	-	-
4/3 (A11 West)	U	D	2	3	60.0	User	1900	-	-	-	-	-
4/4 (A11 West)	U	D	2	3	24.3	User	1900	-	-	-	-	-
5/1 (B1172)	O		2	3	5.2	User	1900	-	-	-	-	-
5/2 (B1172)	O		2	3	60.0	User	1900	-	-	-	-	-
5/3 (B1172)	O		2	3	60.0	User	1900	-	-	-	-	-
6/1 (A47 Southbound Offramp)	U	B	2	3	6.1	User	1900	-	-	-	-	-
6/2 (A47 Southbound Offramp)	U	B	2	3	60.0	User	1900	-	-	-	-	-
6/3 (A47 Southbound Offramp)	U	B	2	3	60.0	User	1900	-	-	-	-	-

Full Input Data And Results

7/1 (A47 Southbound On Ramp)	U	F	2	3	60.0	User	1900	-	-	-	-	-
7/2 (A47 Southbound On Ramp)	U	F	2	3	60.0	User	1900	-	-	-	-	-
8/1	U	A	2	3	60.0	User	1900	-	-	-	-	-
8/2	U	A	2	3	60.0	User	1900	-	-	-	-	-
8/3	U	A	2	3	60.0	User	1900	-	-	-	-	-
9/1 (A11 West - Exit)	U		2	3	60.0	User	1900	-	-	-	-	-
9/2 (A11 West - Exit)	U		2	3	60.0	User	1900	-	-	-	-	-
10/1	U	D	2	3	60.0	User	1900	-	-	-	-	-
10/2	U	D	2	3	60.0	User	1900	-	-	-	-	-
10/3	U	D	2	3	60.0	User	1900	-	-	-	-	-
11/1 (B1172 - Exit)	U		2	3	60.0	User	1900	-	-	-	-	-
11/2 (B1172 - Exit)	U		2	3	60.0	User	1900	-	-	-	-	-
12/1	U		2	3	60.0	User	1900	-	-	-	-	-
12/2	U		2	3	60.0	User	1900	-	-	-	-	-
12/3	U		2	3	60.0	User	1900	-	-	-	-	-
12/4	U		2	3	60.0	User	1900	-	-	-	-	-
13/1 (A47 - Northbound - On Ramp)	U	F	2	3	60.0	User	1900	-	-	-	-	-
13/2 (A47 - Northbound - On Ramp)	U	F	2	3	60.0	User	1900	-	-	-	-	-
14/1	U	A	2	3	60.0	User	1900	-	-	-	-	-
14/2	U	A	2	3	60.0	User	1900	-	-	-	-	-
14/3	U	A	2	3	60.0	User	1900	-	-	-	-	-
14/4	U	A	2	3	60.0	User	1900	-	-	-	-	-
15/1 (Unnamed Road - Exit)	U		2	3	60.0	User	1900	-	-	-	-	-
16/1	U		2	3	60.0	User	1900	-	-	-	-	-
16/2	U		2	3	60.0	User	1900	-	-	-	-	-
16/3	U		2	3	60.0	User	1900	-	-	-	-	-
16/4	U		2	3	60.0	User	1900	-	-	-	-	-
17/1 (A11 East - Exit)	U		2	3	60.0	User	1900	-	-	-	-	-
17/2 (A11 East - Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

18/1	U	C	2	3	60.0	User	1900	-	-	-	-	-
18/2	U	C	2	3	60.0	User	1900	-	-	-	-	-
18/3	U	C	2	3	60.0	User	1900	-	-	-	-	-
19/1 (A47 - Southbound On Ramp)	U		2	3	60.0	User	1900	-	-	-	-	-
19/2 (A47 - Southbound On Ramp)	U		2	3	60.0	User	1900	-	-	-	-	-
20/1	U		2	3	60.0	User	1900	-	-	-	-	-
20/2	U		2	3	60.0	User	1900	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2021 Surveyed Flows'	06:30	07:30	01:00	
2: '2021 Surveyed Flows'	17:25	18:25	01:00	
3: '2025 Forecast Baseline'	06:30	07:30	01:00	
4: '2025 Forecast Baseline'	17:25	18:25	01:00	
5: '2025 Forecast Baseline + DEP or SEP Flows in Isolation '	06:30	07:30	01:00	
6: '2025 Forecast Baseline + DEP or SEP Flows in Isolation '	17:25	18:25	01:00	
7: '2025 Forecast Baseline + DEP and SEP Flows '	06:30	07:30	01:00	
8: '2025 Forecast Baseline + DEP and SEP Flows '	17:25	18:25	01:00	

Scenario 1: '2021 Surveyed Flows - AM' (FG1: '2021 Surveyed Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							Tot.
	A	B	C	D	E	F		
Origin	A	0	2	0	0	0	0	2
	B	3	0	122	586	94	97	902
	C	4	294	8	828	177	51	1362
	D	1	550	505	8	72	375	1511
	E	1	171	271	44	0	19	506
	F	0	129	0	396	140	0	665
	Tot.	9	1146	906	1862	483	542	4948

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2021 Surveyed Flows - AM
Junction: Junction 5 - A47 / A11	
1/1	2
2/1 (short)	89
2/2 (with short)	394(In) 305(Out)
2/3 (with short)	508(In) 314(Out)
2/4 (short)	194
3/1 (short)	419
3/2 (with short)	828(In) 409(Out)
3/3	526
4/1	447
4/2	271
4/3	280
4/4	505
5/1 (short)	19
5/2 (with short)	191(In) 172(Out)
5/3	315
6/1 (short)	129
6/2 (with short)	129(In) 0(Out)
6/3	536
7/1	504
7/2	394
8/1	485
8/2	541
8/3	334
9/1	904
9/2	950
10/1	318
10/2	363
10/3	179
11/1	390
11/2	93
12/1	452
12/2	464
12/3	459
12/4	505

Full Input Data And Results

13/1	471
13/2	71
14/1	476
14/2	548
14/3	415
14/4	405
15/1	9
16/1	596
16/2	548
16/3	415
16/4	941
17/1	598
17/2	548
18/1	415
18/2	574
18/3	367
19/1	504
19/2	394
20/1	471
20/2	71

Full Input Data And Results

Lane Saturation Flows

Junction: Junction 5 - A47 / A11								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Unnamed Road Lane 1)							1900	1900
2/1 (A11 East Lane 1)							1900	1900
2/2 (A11 East Lane 2)							1900	1900
2/3 (A11 East Lane 3)							1900	1900
2/4 (A11 East Lane 4)							1900	1900
3/1 (A47 Northbound Off Ramp Lane 1)							1900	1900
3/2 (A47 Northbound Off Ramp Lane 2)							1900	1900
3/3 (A47 Northbound Off Ramp Lane 3)							1900	1900
4/1 (A11 West Lane 1)							1900	1900
4/2 (A11 West Lane 2)							1900	1900
4/3 (A11 West Lane 3)							1900	1900
4/4 (A11 West Lane 4)							1900	1900
5/1 (B1172 Lane 1)							1900	1900
5/2 (B1172 Lane 2)							1900	1900
5/3 (B1172 Lane 3)							1900	1900
6/1 (A47 Southbound Offramp Lane 1)							1900	1900
6/2 (A47 Southbound Offramp Lane 2)							1900	1900
6/3 (A47 Southbound Offramp Lane 3)							1900	1900
7/1 (A47 Southbound On Ramp Lane 1)							1900	1900
7/2 (A47 Southbound On Ramp Lane 2)							1900	1900
8/1							1900	1900
8/2							1900	1900
8/3							1900	1900
9/1 (A11 West - Exit Lane 1)							1900	1900

Full Input Data And Results

9/2 (A11 West - Exit Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1 (B1172 - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
11/2 (B1172 - Exit Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
12/1	This lane uses a directly entered Saturation Flow	1900	1900
12/2	This lane uses a directly entered Saturation Flow	1900	1900
12/3	This lane uses a directly entered Saturation Flow	1900	1900
12/4	This lane uses a directly entered Saturation Flow	1900	1900
13/1 (A47 - Northbound - On Ramp Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
13/2 (A47 - Northbound - On Ramp Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
14/1	This lane uses a directly entered Saturation Flow	1900	1900
14/2	This lane uses a directly entered Saturation Flow	1900	1900
14/3	This lane uses a directly entered Saturation Flow	1900	1900
14/4	This lane uses a directly entered Saturation Flow	1900	1900
15/1 (Unnamed Road - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
16/1	This lane uses a directly entered Saturation Flow	1900	1900
16/2	This lane uses a directly entered Saturation Flow	1900	1900
16/3	This lane uses a directly entered Saturation Flow	1900	1900
16/4	This lane uses a directly entered Saturation Flow	1900	1900
17/1 (A11 East - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
17/2 (A11 East - Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
18/1	This lane uses a directly entered Saturation Flow	1900	1900
18/2	This lane uses a directly entered Saturation Flow	1900	1900
18/3	This lane uses a directly entered Saturation Flow	1900	1900
19/1 (A47 - Southbound On Ramp Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
19/2 (A47 - Southbound On Ramp Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
20/1	This lane uses a directly entered Saturation Flow	1900	1900
20/2	This lane uses a directly entered Saturation Flow	1900	1900

Full Input Data And Results

Scenario 2: '2021 Surveyed Flows - PM' (FG2: '2021 Surveyed Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination						
		A	B	C	D	E	F	Tot.
Origin	A	0	0	0	1	0	0	1
	B	0	0	269	659	178	170	1276
	C	1	186	3	577	206	21	994
	D	2	648	521	5	59	364	1599
	E	0	182	334	42	0	47	605
	F	0	173	3	342	87	0	605
	Tot.	3	1189	1130	1626	530	602	5080

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2021 Surveyed Flows - PM
Junction: Junction 5 - A47 / A11	
1/1	1
2/1 (short)	212
2/2 (with short)	569(In) 357(Out)
2/3 (with short)	707(In) 359(Out)
2/4 (short)	348
3/1 (short)	297
3/2 (with short)	577(In) 280(Out)
3/3	414
4/1	423
4/2	323
4/3	327
4/4	521
5/1 (short)	47
5/2 (with short)	229(In) 182(Out)
5/3	376
6/1 (short)	173
6/2 (with short)	176(In) 3(Out)
6/3	429
7/1	677
7/2	450
8/1	461
8/2	583
8/3	435
9/1	758
9/2	863
10/1	336
10/2	356
10/3	157
11/1	395
11/2	135
12/1	474
12/2	434
12/3	484
12/4	521

Full Input Data And Results

13/1	521
13/2	81
14/1	458
14/2	561
14/3	462
14/4	435
15/1	3
16/1	628
16/2	561
16/3	465
16/4	864
17/1	628
17/2	561
18/1	465
18/2	554
18/3	311
19/1	677
19/2	450
20/1	521
20/2	81

Full Input Data And Results

Lane Saturation Flows

Junction: Junction 5 - A47 / A11								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Unnamed Road Lane 1)							1900	1900
2/1 (A11 East Lane 1)							1900	1900
2/2 (A11 East Lane 2)							1900	1900
2/3 (A11 East Lane 3)							1900	1900
2/4 (A11 East Lane 4)							1900	1900
3/1 (A47 Northbound Off Ramp Lane 1)							1900	1900
3/2 (A47 Northbound Off Ramp Lane 2)							1900	1900
3/3 (A47 Northbound Off Ramp Lane 3)							1900	1900
4/1 (A11 West Lane 1)							1900	1900
4/2 (A11 West Lane 2)							1900	1900
4/3 (A11 West Lane 3)							1900	1900
4/4 (A11 West Lane 4)							1900	1900
5/1 (B1172 Lane 1)							1900	1900
5/2 (B1172 Lane 2)							1900	1900
5/3 (B1172 Lane 3)							1900	1900
6/1 (A47 Southbound Offramp Lane 1)							1900	1900
6/2 (A47 Southbound Offramp Lane 2)							1900	1900
6/3 (A47 Southbound Offramp Lane 3)							1900	1900
7/1 (A47 Southbound On Ramp Lane 1)							1900	1900
7/2 (A47 Southbound On Ramp Lane 2)							1900	1900
8/1							1900	1900
8/2							1900	1900
8/3							1900	1900
9/1 (A11 West - Exit Lane 1)							1900	1900

Full Input Data And Results

9/2 (A11 West - Exit Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1 (B1172 - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
11/2 (B1172 - Exit Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
12/1	This lane uses a directly entered Saturation Flow	1900	1900
12/2	This lane uses a directly entered Saturation Flow	1900	1900
12/3	This lane uses a directly entered Saturation Flow	1900	1900
12/4	This lane uses a directly entered Saturation Flow	1900	1900
13/1 (A47 - Northbound - On Ramp Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
13/2 (A47 - Northbound - On Ramp Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
14/1	This lane uses a directly entered Saturation Flow	1900	1900
14/2	This lane uses a directly entered Saturation Flow	1900	1900
14/3	This lane uses a directly entered Saturation Flow	1900	1900
14/4	This lane uses a directly entered Saturation Flow	1900	1900
15/1 (Unnamed Road - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
16/1	This lane uses a directly entered Saturation Flow	1900	1900
16/2	This lane uses a directly entered Saturation Flow	1900	1900
16/3	This lane uses a directly entered Saturation Flow	1900	1900
16/4	This lane uses a directly entered Saturation Flow	1900	1900
17/1 (A11 East - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
17/2 (A11 East - Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
18/1	This lane uses a directly entered Saturation Flow	1900	1900
18/2	This lane uses a directly entered Saturation Flow	1900	1900
18/3	This lane uses a directly entered Saturation Flow	1900	1900
19/1 (A47 - Southbound On Ramp Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
19/2 (A47 - Southbound On Ramp Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
20/1	This lane uses a directly entered Saturation Flow	1900	1900
20/2	This lane uses a directly entered Saturation Flow	1900	1900

Full Input Data And Results

Scenario 3: '2025 Forecast Baseline - AM' (FG3: '2025 Forecast Baseline', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
	A	B	C	D	E	F	Tot.	
Origin	A	0	2	0	0	0	0	2
	B	3	0	131	632	101	105	972
	C	4	317	9	892	191	55	1468
	D	1	593	544	9	78	404	1629
	E	1	184	292	47	0	20	544
	F	0	139	0	427	151	0	717
	Tot.	9	1235	976	2007	521	584	5332

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: 2025 Forecast Baseline - AM
Junction: Junction 5 - A47 / A11	
1/1	2
2/1 (short)	70
2/2 (with short)	425(In) 355(Out)
2/3 (with short)	547(In) 338(Out)
2/4 (short)	209
3/1 (short)	450
3/2 (with short)	892(In) 442(Out)
3/3	567
4/1	482
4/2	293
4/3	301
4/4	544
5/1 (short)	20
5/2 (with short)	205(In) 185(Out)
5/3	339
6/1 (short)	139
6/2 (with short)	139(In) 0(Out)
6/3	578
7/1	523
7/2	444
8/1	530
8/2	576
8/3	360
9/1	980
9/2	1018
10/1	327
10/2	406
10/3	194
11/1	405
11/2	116
12/1	479
12/2	508
12/3	495
12/4	544

Full Input Data And Results

13/1	499
13/2	85
14/1	525
14/2	578
14/3	453
14/4	430
15/1	9
16/1	655
16/2	578
16/3	453
16/4	1008
17/1	657
17/2	578
18/1	453
18/2	619
18/3	389
19/1	523
19/2	444
20/1	499
20/2	85

Full Input Data And Results

Lane Saturation Flows

Junction: Junction 5 - A47 / A11								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Unnamed Road Lane 1)							1900	1900
2/1 (A11 East Lane 1)							1900	1900
2/2 (A11 East Lane 2)							1900	1900
2/3 (A11 East Lane 3)							1900	1900
2/4 (A11 East Lane 4)							1900	1900
3/1 (A47 Northbound Off Ramp Lane 1)							1900	1900
3/2 (A47 Northbound Off Ramp Lane 2)							1900	1900
3/3 (A47 Northbound Off Ramp Lane 3)							1900	1900
4/1 (A11 West Lane 1)							1900	1900
4/2 (A11 West Lane 2)							1900	1900
4/3 (A11 West Lane 3)							1900	1900
4/4 (A11 West Lane 4)							1900	1900
5/1 (B1172 Lane 1)							1900	1900
5/2 (B1172 Lane 2)							1900	1900
5/3 (B1172 Lane 3)							1900	1900
6/1 (A47 Southbound Offramp Lane 1)							1900	1900
6/2 (A47 Southbound Offramp Lane 2)							1900	1900
6/3 (A47 Southbound Offramp Lane 3)							1900	1900
7/1 (A47 Southbound On Ramp Lane 1)							1900	1900
7/2 (A47 Southbound On Ramp Lane 2)							1900	1900
8/1							1900	1900
8/2							1900	1900
8/3							1900	1900
9/1 (A11 West - Exit Lane 1)							1900	1900

Full Input Data And Results

9/2 (A11 West - Exit Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1 (B1172 - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
11/2 (B1172 - Exit Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
12/1	This lane uses a directly entered Saturation Flow	1900	1900
12/2	This lane uses a directly entered Saturation Flow	1900	1900
12/3	This lane uses a directly entered Saturation Flow	1900	1900
12/4	This lane uses a directly entered Saturation Flow	1900	1900
13/1 (A47 - Northbound - On Ramp Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
13/2 (A47 - Northbound - On Ramp Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
14/1	This lane uses a directly entered Saturation Flow	1900	1900
14/2	This lane uses a directly entered Saturation Flow	1900	1900
14/3	This lane uses a directly entered Saturation Flow	1900	1900
14/4	This lane uses a directly entered Saturation Flow	1900	1900
15/1 (Unnamed Road - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
16/1	This lane uses a directly entered Saturation Flow	1900	1900
16/2	This lane uses a directly entered Saturation Flow	1900	1900
16/3	This lane uses a directly entered Saturation Flow	1900	1900
16/4	This lane uses a directly entered Saturation Flow	1900	1900
17/1 (A11 East - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
17/2 (A11 East - Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
18/1	This lane uses a directly entered Saturation Flow	1900	1900
18/2	This lane uses a directly entered Saturation Flow	1900	1900
18/3	This lane uses a directly entered Saturation Flow	1900	1900
19/1 (A47 - Southbound On Ramp Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
19/2 (A47 - Southbound On Ramp Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
20/1	This lane uses a directly entered Saturation Flow	1900	1900
20/2	This lane uses a directly entered Saturation Flow	1900	1900

Full Input Data And Results

Scenario 4: '2025 Forecast Baseline - PM' (FG4: '2025 Forecast Baseline', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination						
		A	B	C	D	E	F	Tot.
Origin	A	0	0	0	1	0	0	1
	B	0	0	290	711	192	183	1376
	C	1	201	3	623	222	23	1073
	D	2	699	562	5	64	393	1725
	E	0	196	361	45	0	51	653
	F	0	187	3	369	94	0	653
	Tot.	3	1283	1219	1754	572	650	5481

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2025 Forecast Baseline - PM
Junction: Junction 5 - A47 / A11	
1/1	1
2/1 (short)	244
2/2 (with short)	671(In) 427(Out)
2/3 (with short)	705(In) 330(Out)
2/4 (short)	375
3/1 (short)	315
3/2 (with short)	623(In) 308(Out)
3/3	447
4/1	457
4/2	352
4/3	349
4/4	562
5/1 (short)	51
5/2 (with short)	247(In) 196(Out)
5/3	406
6/1 (short)	187
6/2 (with short)	190(In) 3(Out)
6/3	463
7/1	733
7/2	483
8/1	540
8/2	586
8/3	469
9/1	855
9/2	894
10/1	364
10/2	395
10/3	157
11/1	428
11/2	144
12/1	483
12/2	513
12/3	506
12/4	562

Full Input Data And Results

13/1	534
13/2	116
14/1	501
14/2	598
14/3	486
14/4	482
15/1	3
16/1	685
16/2	598
16/3	489
16/4	945
17/1	685
17/2	598
18/1	489
18/2	596
18/3	350
19/1	733
19/2	483
20/1	534
20/2	116

Full Input Data And Results

Lane Saturation Flows

Junction: Junction 5 - A47 / A11								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Unnamed Road Lane 1)							1900	1900
2/1 (A11 East Lane 1)							1900	1900
2/2 (A11 East Lane 2)							1900	1900
2/3 (A11 East Lane 3)							1900	1900
2/4 (A11 East Lane 4)							1900	1900
3/1 (A47 Northbound Off Ramp Lane 1)							1900	1900
3/2 (A47 Northbound Off Ramp Lane 2)							1900	1900
3/3 (A47 Northbound Off Ramp Lane 3)							1900	1900
4/1 (A11 West Lane 1)							1900	1900
4/2 (A11 West Lane 2)							1900	1900
4/3 (A11 West Lane 3)							1900	1900
4/4 (A11 West Lane 4)							1900	1900
5/1 (B1172 Lane 1)							1900	1900
5/2 (B1172 Lane 2)							1900	1900
5/3 (B1172 Lane 3)							1900	1900
6/1 (A47 Southbound Offramp Lane 1)							1900	1900
6/2 (A47 Southbound Offramp Lane 2)							1900	1900
6/3 (A47 Southbound Offramp Lane 3)							1900	1900
7/1 (A47 Southbound On Ramp Lane 1)							1900	1900
7/2 (A47 Southbound On Ramp Lane 2)							1900	1900
8/1							1900	1900
8/2							1900	1900
8/3							1900	1900
9/1 (A11 West - Exit Lane 1)							1900	1900

Full Input Data And Results

9/2 (A11 West - Exit Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1 (B1172 - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
11/2 (B1172 - Exit Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
12/1	This lane uses a directly entered Saturation Flow	1900	1900
12/2	This lane uses a directly entered Saturation Flow	1900	1900
12/3	This lane uses a directly entered Saturation Flow	1900	1900
12/4	This lane uses a directly entered Saturation Flow	1900	1900
13/1 (A47 - Northbound - On Ramp Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
13/2 (A47 - Northbound - On Ramp Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
14/1	This lane uses a directly entered Saturation Flow	1900	1900
14/2	This lane uses a directly entered Saturation Flow	1900	1900
14/3	This lane uses a directly entered Saturation Flow	1900	1900
14/4	This lane uses a directly entered Saturation Flow	1900	1900
15/1 (Unnamed Road - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
16/1	This lane uses a directly entered Saturation Flow	1900	1900
16/2	This lane uses a directly entered Saturation Flow	1900	1900
16/3	This lane uses a directly entered Saturation Flow	1900	1900
16/4	This lane uses a directly entered Saturation Flow	1900	1900
17/1 (A11 East - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
17/2 (A11 East - Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
18/1	This lane uses a directly entered Saturation Flow	1900	1900
18/2	This lane uses a directly entered Saturation Flow	1900	1900
18/3	This lane uses a directly entered Saturation Flow	1900	1900
19/1 (A47 - Southbound On Ramp Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
19/2 (A47 - Southbound On Ramp Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
20/1	This lane uses a directly entered Saturation Flow	1900	1900
20/2	This lane uses a directly entered Saturation Flow	1900	1900

Full Input Data And Results

Scenario 5: '2025 Forecast Baseline + DEP or SEP in Isolation - AM' (FG5: '2025 Forecast Baseline + DEP or SEP Flows in Isolation ', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination						
Origin		A	B	C	D	E	F	Tot.
	A	0	2	0	0	0	0	2
	B	3	0	131	633	102	106	975
	C	4	317	9	919	206	55	1510
	D	1	593	550	9	78	462	1693
	E	1	184	292	47	0	26	550
	F	0	139	0	491	164	0	794
	Tot.	9	1235	982	2099	550	649	5524

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: 2025 Forecast Baseline + DEP or SEP in Isolation - AM
Junction: Junction 5 - A47 / A11	
1/1	2
2/1 (short)	79
2/2 (with short)	447(In) 368(Out)
2/3 (with short)	528(In) 317(Out)
2/4 (short)	211
3/1 (short)	464
3/2 (with short)	919(In) 455(Out)
3/3	582
4/1	540
4/2	295
4/3	299
4/4	550
5/1 (short)	26
5/2 (with short)	211(In) 185(Out)
5/3	339
6/1 (short)	139
6/2 (with short)	139(In) 0(Out)
6/3	655
7/1	536
7/2	437
8/1	564
8/2	607
8/3	375
9/1	1028
9/2	1062
10/1	346
10/2	423
10/3	188
11/1	424
11/2	126
12/1	528
12/2	526
12/3	487

Full Input Data And Results

12/4	550
13/1	554
13/2	95
14/1	527
14/2	576
14/3	457
14/4	432
15/1	9
16/1	657
16/2	576
16/3	457
16/4	1087
17/1	659
17/2	576
18/1	457
18/2	633
18/3	454
19/1	536
19/2	437
20/1	554
20/2	95

Full Input Data And Results

Lane Saturation Flows

Junction: Junction 5 - A47 / A11								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Unnamed Road Lane 1)							1900	1900
2/1 (A11 East Lane 1)							1900	1900
2/2 (A11 East Lane 2)							1900	1900
2/3 (A11 East Lane 3)							1900	1900
2/4 (A11 East Lane 4)							1900	1900
3/1 (A47 Northbound Off Ramp Lane 1)							1900	1900
3/2 (A47 Northbound Off Ramp Lane 2)							1900	1900
3/3 (A47 Northbound Off Ramp Lane 3)							1900	1900
4/1 (A11 West Lane 1)							1900	1900
4/2 (A11 West Lane 2)							1900	1900
4/3 (A11 West Lane 3)							1900	1900
4/4 (A11 West Lane 4)							1900	1900
5/1 (B1172 Lane 1)							1900	1900
5/2 (B1172 Lane 2)							1900	1900
5/3 (B1172 Lane 3)							1900	1900
6/1 (A47 Southbound Offramp Lane 1)							1900	1900
6/2 (A47 Southbound Offramp Lane 2)							1900	1900
6/3 (A47 Southbound Offramp Lane 3)							1900	1900
7/1 (A47 Southbound On Ramp Lane 1)							1900	1900
7/2 (A47 Southbound On Ramp Lane 2)							1900	1900
8/1							1900	1900
8/2							1900	1900
8/3							1900	1900
9/1 (A11 West - Exit Lane 1)							1900	1900

Full Input Data And Results

9/2 (A11 West - Exit Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1 (B1172 - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
11/2 (B1172 - Exit Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
12/1	This lane uses a directly entered Saturation Flow	1900	1900
12/2	This lane uses a directly entered Saturation Flow	1900	1900
12/3	This lane uses a directly entered Saturation Flow	1900	1900
12/4	This lane uses a directly entered Saturation Flow	1900	1900
13/1 (A47 - Northbound - On Ramp Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
13/2 (A47 - Northbound - On Ramp Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
14/1	This lane uses a directly entered Saturation Flow	1900	1900
14/2	This lane uses a directly entered Saturation Flow	1900	1900
14/3	This lane uses a directly entered Saturation Flow	1900	1900
14/4	This lane uses a directly entered Saturation Flow	1900	1900
15/1 (Unnamed Road - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
16/1	This lane uses a directly entered Saturation Flow	1900	1900
16/2	This lane uses a directly entered Saturation Flow	1900	1900
16/3	This lane uses a directly entered Saturation Flow	1900	1900
16/4	This lane uses a directly entered Saturation Flow	1900	1900
17/1 (A11 East - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
17/2 (A11 East - Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
18/1	This lane uses a directly entered Saturation Flow	1900	1900
18/2	This lane uses a directly entered Saturation Flow	1900	1900
18/3	This lane uses a directly entered Saturation Flow	1900	1900
19/1 (A47 - Southbound On Ramp Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
19/2 (A47 - Southbound On Ramp Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
20/1	This lane uses a directly entered Saturation Flow	1900	1900
20/2	This lane uses a directly entered Saturation Flow	1900	1900

Full Input Data And Results

Scenario 6: '2025 Forecast Baseline + DEP or SEP in Isolation - PM' (FG6: '2025 Forecast Baseline + DEP or SEP Flows in Isolation ', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination						
Origin		A	B	C	D	E	F	Tot.
	A	0	0	0	1	0	0	1
	B	0	0	290	711	192	183	1376
	C	1	201	3	629	223	23	1080
	D	2	701	589	5	64	457	1818
	E	0	197	375	45	0	64	681
	F	0	189	3	427	100	0	719
	Tot.	3	1288	1260	1818	579	727	5675

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 2025 Forecast Baseline + DEP or SEP in Isolation - PM
Junction: Junction 5 - A47 / A11	
1/1	1
2/1 (short)	234
2/2 (with short)	737(In) 503(Out)
2/3 (with short)	639(In) 264(Out)
2/4 (short)	375
3/1 (short)	313
3/2 (with short)	629(In) 316(Out)
3/3	448
4/1	521
4/2	354
4/3	349
4/4	589
5/1 (short)	64
5/2 (with short)	261(In) 197(Out)
5/3	420
6/1 (short)	189
6/2 (with short)	192(In) 3(Out)
6/3	527
7/1	744
7/2	513
8/1	598
8/2	586
8/3	475
9/1	911
9/2	902
10/1	377
10/2	412
10/3	134
11/1	441
11/2	138
12/1	547
12/2	538
12/3	483

Full Input Data And Results

12/4	589
13/1	611
13/2	116
14/1	536
14/2	566
14/3	507
14/4	502
15/1	3
16/1	722
16/2	566
16/3	510
16/4	1029
17/1	722
17/2	566
18/1	510
18/2	608
18/3	422
19/1	744
19/2	513
20/1	611
20/2	116

Full Input Data And Results

Lane Saturation Flows

Junction: Junction 5 - A47 / A11								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Unnamed Road Lane 1)							1900	1900
2/1 (A11 East Lane 1)							1900	1900
2/2 (A11 East Lane 2)							1900	1900
2/3 (A11 East Lane 3)							1900	1900
2/4 (A11 East Lane 4)							1900	1900
3/1 (A47 Northbound Off Ramp Lane 1)							1900	1900
3/2 (A47 Northbound Off Ramp Lane 2)							1900	1900
3/3 (A47 Northbound Off Ramp Lane 3)							1900	1900
4/1 (A11 West Lane 1)							1900	1900
4/2 (A11 West Lane 2)							1900	1900
4/3 (A11 West Lane 3)							1900	1900
4/4 (A11 West Lane 4)							1900	1900
5/1 (B1172 Lane 1)							1900	1900
5/2 (B1172 Lane 2)							1900	1900
5/3 (B1172 Lane 3)							1900	1900
6/1 (A47 Southbound Offramp Lane 1)							1900	1900
6/2 (A47 Southbound Offramp Lane 2)							1900	1900
6/3 (A47 Southbound Offramp Lane 3)							1900	1900
7/1 (A47 Southbound On Ramp Lane 1)							1900	1900
7/2 (A47 Southbound On Ramp Lane 2)							1900	1900
8/1							1900	1900
8/2							1900	1900
8/3							1900	1900
9/1 (A11 West - Exit Lane 1)							1900	1900

Full Input Data And Results

9/2 (A11 West - Exit Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1 (B1172 - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
11/2 (B1172 - Exit Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
12/1	This lane uses a directly entered Saturation Flow	1900	1900
12/2	This lane uses a directly entered Saturation Flow	1900	1900
12/3	This lane uses a directly entered Saturation Flow	1900	1900
12/4	This lane uses a directly entered Saturation Flow	1900	1900
13/1 (A47 - Northbound - On Ramp Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
13/2 (A47 - Northbound - On Ramp Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
14/1	This lane uses a directly entered Saturation Flow	1900	1900
14/2	This lane uses a directly entered Saturation Flow	1900	1900
14/3	This lane uses a directly entered Saturation Flow	1900	1900
14/4	This lane uses a directly entered Saturation Flow	1900	1900
15/1 (Unnamed Road - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
16/1	This lane uses a directly entered Saturation Flow	1900	1900
16/2	This lane uses a directly entered Saturation Flow	1900	1900
16/3	This lane uses a directly entered Saturation Flow	1900	1900
16/4	This lane uses a directly entered Saturation Flow	1900	1900
17/1 (A11 East - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
17/2 (A11 East - Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
18/1	This lane uses a directly entered Saturation Flow	1900	1900
18/2	This lane uses a directly entered Saturation Flow	1900	1900
18/3	This lane uses a directly entered Saturation Flow	1900	1900
19/1 (A47 - Southbound On Ramp Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
19/2 (A47 - Southbound On Ramp Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
20/1	This lane uses a directly entered Saturation Flow	1900	1900
20/2	This lane uses a directly entered Saturation Flow	1900	1900

Full Input Data And Results

Scenario 7: '2025 Forecast Baseline + DEP and SEP - AM' (FG7: '2025 Forecast Baseline + DEP and SEP Flows ', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination						
Origin		A	B	C	D	E	F	Tot.
	A	0	2	0	0	0	0	2
	B	3	0	131	633	102	107	976
	C	4	317	9	947	218	55	1550
	D	1	593	564	9	78	476	1721
	E	1	184	295	47	0	26	553
	F	0	139	0	522	169	0	830
	Tot.	9	1235	999	2158	567	664	5632

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: 2025 Forecast Baseline + DEP and SEP - AM
Junction: Junction 5 - A47 / A11	
1/1	2
2/1 (short)	109
2/2 (with short)	420(In) 311(Out)
2/3 (with short)	556(In) 344(Out)
2/4 (short)	212
3/1 (short)	477
3/2 (with short)	947(In) 470(Out)
3/3	594
4/1	554
4/2	298
4/3	296
4/4	564
5/1 (short)	26
5/2 (with short)	211(In) 185(Out)
5/3	342
6/1 (short)	139
6/2 (with short)	139(In) 0(Out)
6/3	691
7/1	582
7/2	408
8/1	579
8/2	623
8/3	381
9/1	1056
9/2	1093
10/1	331
10/2	457
10/3	187
11/1	409
11/2	158
12/1	552
12/2	521
12/3	483

Full Input Data And Results

12/4	564
13/1	578
13/2	86
14/1	538
14/2	565
14/3	473
14/4	433
15/1	9
16/1	668
16/2	565
16/3	473
16/4	1124
17/1	670
17/2	565
18/1	473
18/2	676
18/3	448
19/1	582
19/2	408
20/1	578
20/2	86

Full Input Data And Results

Lane Saturation Flows

Junction: Junction 5 - A47 / A11								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Unnamed Road Lane 1)							1900	1900
2/1 (A11 East Lane 1)							1900	1900
2/2 (A11 East Lane 2)							1900	1900
2/3 (A11 East Lane 3)							1900	1900
2/4 (A11 East Lane 4)							1900	1900
3/1 (A47 Northbound Off Ramp Lane 1)							1900	1900
3/2 (A47 Northbound Off Ramp Lane 2)							1900	1900
3/3 (A47 Northbound Off Ramp Lane 3)							1900	1900
4/1 (A11 West Lane 1)							1900	1900
4/2 (A11 West Lane 2)							1900	1900
4/3 (A11 West Lane 3)							1900	1900
4/4 (A11 West Lane 4)							1900	1900
5/1 (B1172 Lane 1)							1900	1900
5/2 (B1172 Lane 2)							1900	1900
5/3 (B1172 Lane 3)							1900	1900
6/1 (A47 Southbound Offramp Lane 1)							1900	1900
6/2 (A47 Southbound Offramp Lane 2)							1900	1900
6/3 (A47 Southbound Offramp Lane 3)							1900	1900
7/1 (A47 Southbound On Ramp Lane 1)							1900	1900
7/2 (A47 Southbound On Ramp Lane 2)							1900	1900
8/1							1900	1900
8/2							1900	1900
8/3							1900	1900
9/1 (A11 West - Exit Lane 1)							1900	1900

Full Input Data And Results

9/2 (A11 West - Exit Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1 (B1172 - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
11/2 (B1172 - Exit Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
12/1	This lane uses a directly entered Saturation Flow	1900	1900
12/2	This lane uses a directly entered Saturation Flow	1900	1900
12/3	This lane uses a directly entered Saturation Flow	1900	1900
12/4	This lane uses a directly entered Saturation Flow	1900	1900
13/1 (A47 - Northbound - On Ramp Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
13/2 (A47 - Northbound - On Ramp Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
14/1	This lane uses a directly entered Saturation Flow	1900	1900
14/2	This lane uses a directly entered Saturation Flow	1900	1900
14/3	This lane uses a directly entered Saturation Flow	1900	1900
14/4	This lane uses a directly entered Saturation Flow	1900	1900
15/1 (Unnamed Road - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
16/1	This lane uses a directly entered Saturation Flow	1900	1900
16/2	This lane uses a directly entered Saturation Flow	1900	1900
16/3	This lane uses a directly entered Saturation Flow	1900	1900
16/4	This lane uses a directly entered Saturation Flow	1900	1900
17/1 (A11 East - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
17/2 (A11 East - Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
18/1	This lane uses a directly entered Saturation Flow	1900	1900
18/2	This lane uses a directly entered Saturation Flow	1900	1900
18/3	This lane uses a directly entered Saturation Flow	1900	1900
19/1 (A47 - Southbound On Ramp Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
19/2 (A47 - Southbound On Ramp Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
20/1	This lane uses a directly entered Saturation Flow	1900	1900
20/2	This lane uses a directly entered Saturation Flow	1900	1900

Full Input Data And Results

Scenario 8: '2025 Forecast Baseline + DEP and SEP - PM' (FG8: '2025 Forecast Baseline + DEP and SEP Flows ', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination						
Origin		A	B	C	D	E	F	Tot.
	A	0	0	0	1	0	0	1
	B	0	0	290	711	192	183	1376
	C	1	201	3	642	226	23	1096
	D	2	701	617	5	64	488	1877
	E	0	197	388	45	0	69	699
	F	0	189	3	441	100	0	733
	Tot.	3	1288	1301	1845	582	763	5782

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: 2025 Forecast Baseline + DEP and SEP - PM
Junction: Junction 5 - A47 / A11	
1/1	1
2/1 (short)	224
2/2 (with short)	605(In) 381(Out)
2/3 (with short)	771(In) 396(Out)
2/4 (short)	375
3/1 (short)	327
3/2 (with short)	642(In) 315(Out)
3/3	451
4/1	552
4/2	350
4/3	353
4/4	617
5/1 (short)	69
5/2 (with short)	266(In) 197(Out)
5/3	433
6/1 (short)	189
6/2 (with short)	192(In) 3(Out)
6/3	541
7/1	782
7/2	516
8/1	535
8/2	663
8/3	475
9/1	862
9/2	978
10/1	368
10/2	405
10/3	153
11/1	432
11/2	150
12/1	576
12/2	517
12/3	506

Full Input Data And Results

12/4	617
13/1	645
13/2	118
14/1	503
14/2	599
14/3	555
14/4	495
15/1	3
16/1	689
16/2	599
16/3	558
16/4	1036
17/1	689
17/2	599
18/1	558
18/2	670
18/3	367
19/1	782
19/2	516
20/1	645
20/2	118

Full Input Data And Results

Lane Saturation Flows

Junction: Junction 5 - A47 / A11								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Unnamed Road Lane 1)							1900	1900
2/1 (A11 East Lane 1)							1900	1900
2/2 (A11 East Lane 2)							1900	1900
2/3 (A11 East Lane 3)							1900	1900
2/4 (A11 East Lane 4)							1900	1900
3/1 (A47 Northbound Off Ramp Lane 1)							1900	1900
3/2 (A47 Northbound Off Ramp Lane 2)							1900	1900
3/3 (A47 Northbound Off Ramp Lane 3)							1900	1900
4/1 (A11 West Lane 1)							1900	1900
4/2 (A11 West Lane 2)							1900	1900
4/3 (A11 West Lane 3)							1900	1900
4/4 (A11 West Lane 4)							1900	1900
5/1 (B1172 Lane 1)							1900	1900
5/2 (B1172 Lane 2)							1900	1900
5/3 (B1172 Lane 3)							1900	1900
6/1 (A47 Southbound Offramp Lane 1)							1900	1900
6/2 (A47 Southbound Offramp Lane 2)							1900	1900
6/3 (A47 Southbound Offramp Lane 3)							1900	1900
7/1 (A47 Southbound On Ramp Lane 1)							1900	1900
7/2 (A47 Southbound On Ramp Lane 2)							1900	1900
8/1							1900	1900
8/2							1900	1900
8/3							1900	1900
9/1 (A11 West - Exit Lane 1)							1900	1900

Full Input Data And Results

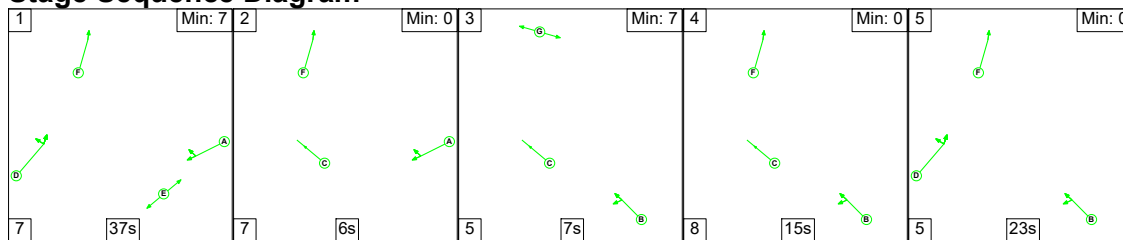
9/2 (A11 West - Exit Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1 (B1172 - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
11/2 (B1172 - Exit Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
12/1	This lane uses a directly entered Saturation Flow	1900	1900
12/2	This lane uses a directly entered Saturation Flow	1900	1900
12/3	This lane uses a directly entered Saturation Flow	1900	1900
12/4	This lane uses a directly entered Saturation Flow	1900	1900
13/1 (A47 - Northbound - On Ramp Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
13/2 (A47 - Northbound - On Ramp Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
14/1	This lane uses a directly entered Saturation Flow	1900	1900
14/2	This lane uses a directly entered Saturation Flow	1900	1900
14/3	This lane uses a directly entered Saturation Flow	1900	1900
14/4	This lane uses a directly entered Saturation Flow	1900	1900
15/1 (Unnamed Road - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
16/1	This lane uses a directly entered Saturation Flow	1900	1900
16/2	This lane uses a directly entered Saturation Flow	1900	1900
16/3	This lane uses a directly entered Saturation Flow	1900	1900
16/4	This lane uses a directly entered Saturation Flow	1900	1900
17/1 (A11 East - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
17/2 (A11 East - Exit Lane 2)	Infinite Saturation Flow	Inf	Inf
18/1	This lane uses a directly entered Saturation Flow	1900	1900
18/2	This lane uses a directly entered Saturation Flow	1900	1900
18/3	This lane uses a directly entered Saturation Flow	1900	1900
19/1 (A47 - Southbound On Ramp Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
19/2 (A47 - Southbound On Ramp Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
20/1	This lane uses a directly entered Saturation Flow	1900	1900
20/2	This lane uses a directly entered Saturation Flow	1900	1900

Full Input Data And Results

Scenario 1: '2021 Surveyed Flows - AM' (FG1: '2021 Surveyed Flows', Plan 1: 'Network Control Plan 1')

C1 - West Controller

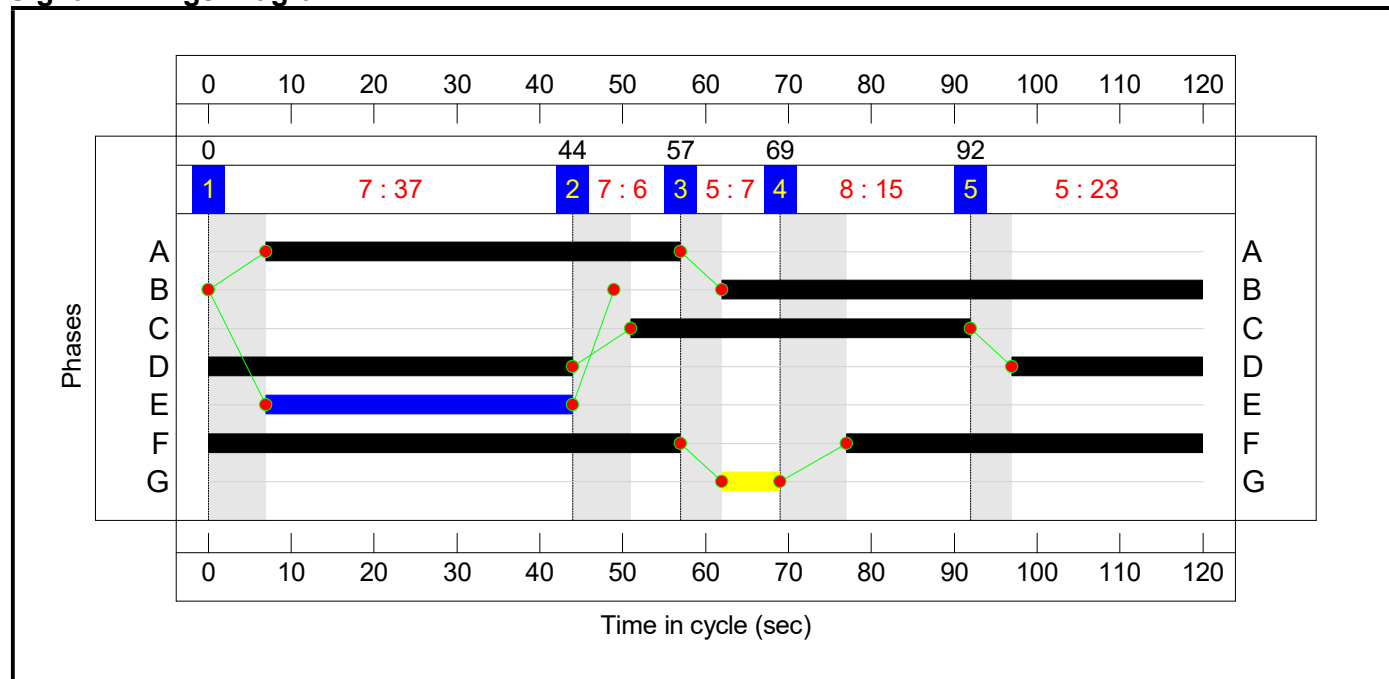
Stage Sequence Diagram



Stage Timings

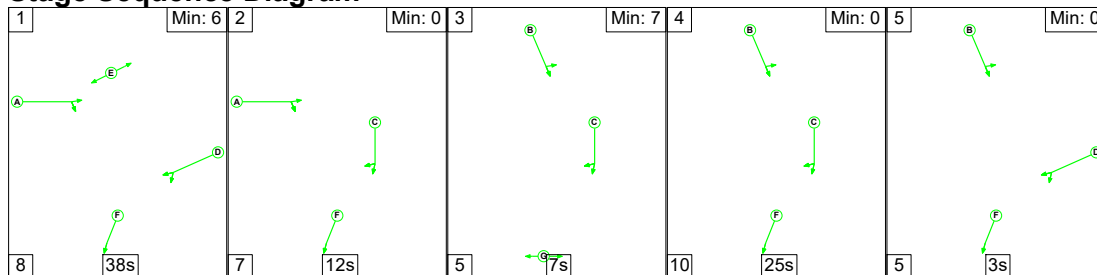
Stage	1	2	3	4	5
Duration	37	6	7	15	23
Change Point	0	44	57	69	92

Signal Timings Diagram



C2 - East Controller

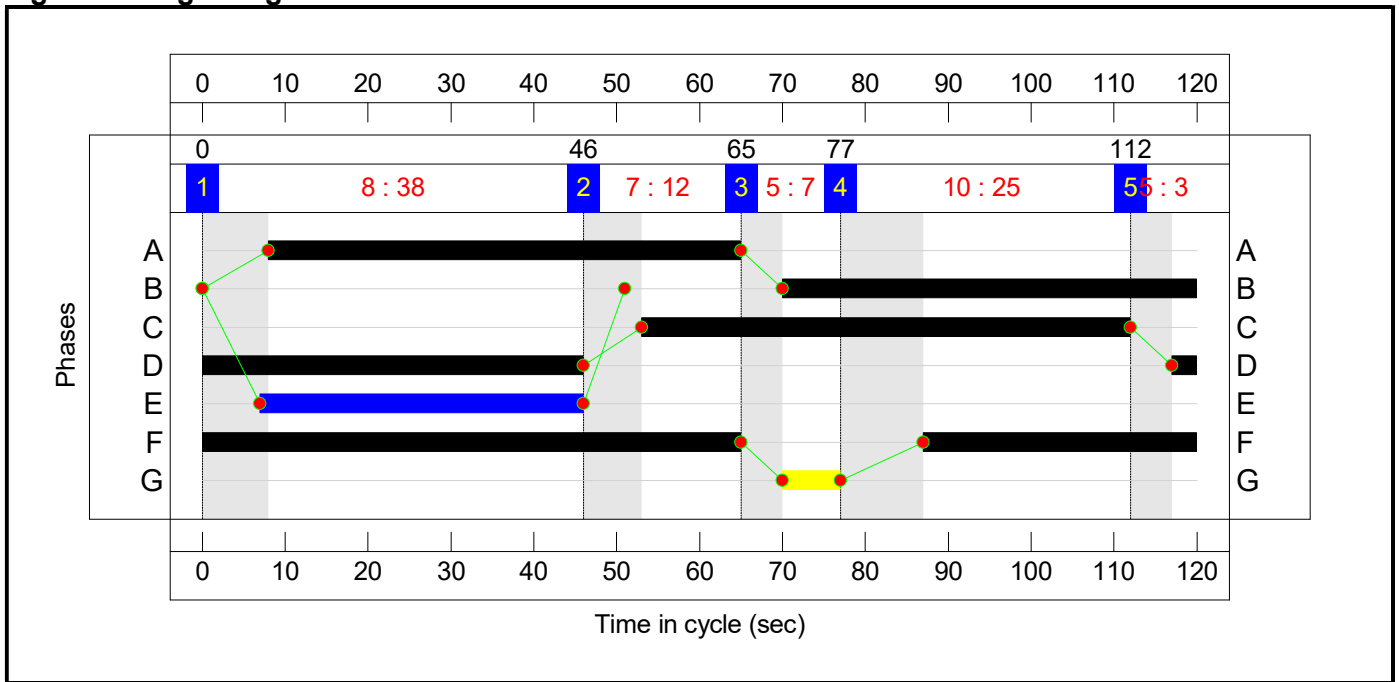
Stage Sequence Diagram



Stage Timings

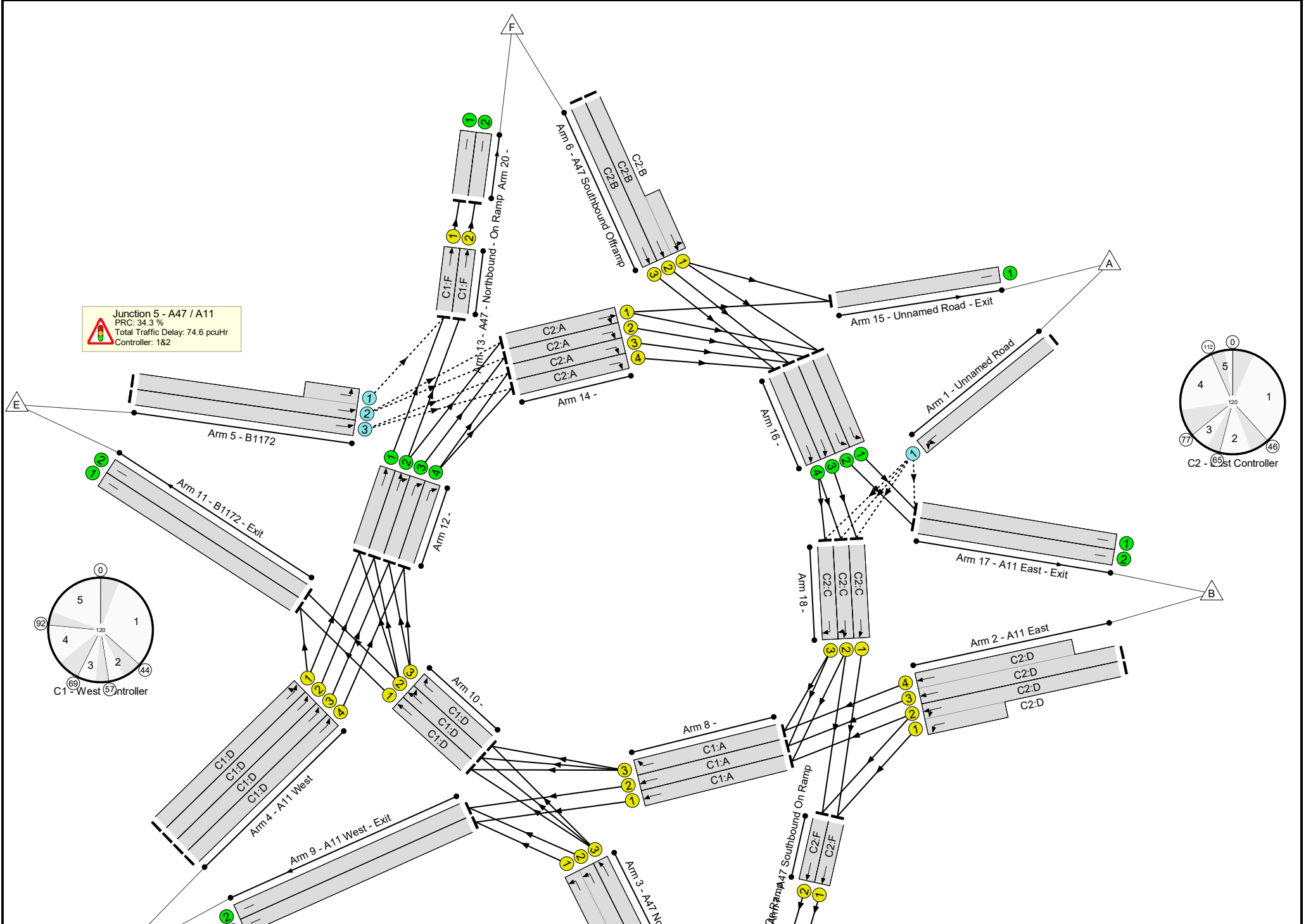
Stage	1	2	3	4	5
Duration	38	12	7	25	3
Change Point	0	46	65	77	112

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Junction 5 - A47 / A11 Grade Separated Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	67.0%
Junction 5 - A47 / A11	-	-	N/A	-	-		-	-	-	-	-	-	67.0%
1/1	Unnamed Road Left Left2	O	N/A	N/A	-		-	-	-	2	1900	798	0.3%
2/2+2/1	A11 East Left Ahead	U	N/A	N/A	C2:D		1	49	-	394	1900:1900	678+198	45.0 : 45.0%
2/3+2/4	A11 East Ahead	U	N/A	N/A	C2:D		1	49	-	508	1900:1900	694+429	45.2 : 45.2%
3/2+3/1	A47 Northbound Off Ramp Left	U	N/A	N/A	C1:B		1	58	-	828	1900:1900	615+630	66.5 : 66.5%
3/3	A47 Northbound Off Ramp Ahead	U	N/A	N/A	C1:B		1	58	-	526	1900	934	56.3%
4/1	A11 West Left Ahead	U	N/A	N/A	C1:D		1	67	-	447	1900	1077	41.5%
4/2	A11 West Ahead	U	N/A	N/A	C1:D		1	67	-	271	1900	1077	25.2%
4/3	A11 West Ahead	U	N/A	N/A	C1:D		1	67	-	280	1900	1077	26.0%
4/4	A11 West Ahead	U	N/A	N/A	C1:D		1	67	-	505	1900	1077	46.9%
5/2+5/1	B1172 Left Ahead	O	N/A	N/A	-		-	-	-	191	1900:1900	520+57	33.1 : 33.1%
5/3	B1172 Ahead	O	N/A	N/A	-		-	-	-	315	1900	474	66.4%
6/2+6/1	A47 Southbound Offramp Left Ahead	U	N/A	N/A	C2:B		1	50	-	129	1900:1900	0+808	0.0 : 16.0%
6/3	A47 Southbound Offramp Ahead	U	N/A	N/A	C2:B		1	50	-	536	1900	808	66.4%

Full Input Data And Results

7/1	A47 Southbound On Ramp Ahead	U	N/A	N/A	C2:F		1	98	-	504	1900	1568	32.2%
7/2	A47 Southbound On Ramp Ahead	U	N/A	N/A	C2:F		1	98	-	394	1900	1568	25.1%
8/1	Ahead	U	N/A	N/A	C1:A		1	50	-	485	1900	808	60.1%
8/2	Ahead	U	N/A	N/A	C1:A		1	50	-	541	1900	808	67.0%
8/3	Right	U	N/A	N/A	C1:A		1	50	-	334	1900	808	41.4%
9/1	A11 West - Exit	U	N/A	N/A	-		-	-	-	904	1900	1900	47.6%
9/2	A11 West - Exit	U	N/A	N/A	-		-	-	-	950	1900	1900	50.0%
10/1	Ahead	U	N/A	N/A	C1:D		1	67	-	318	1900	1077	29.5%
10/2	Ahead Right	U	N/A	N/A	C1:D		1	67	-	363	1900	1077	33.7%
10/3	Right	U	N/A	N/A	C1:D		1	67	-	179	1900	1077	16.6%
11/1	B1172 - Exit	U	N/A	N/A	-		-	-	-	390	1900	1900	20.5%
11/2	B1172 - Exit	U	N/A	N/A	-		-	-	-	93	1900	1900	4.9%
12/1	Ahead	U	N/A	N/A	-		-	-	-	452	1900	1900	23.8%
12/2	Ahead Right	U	N/A	N/A	-		-	-	-	464	1900	1900	24.4%
12/3	Right	U	N/A	N/A	-		-	-	-	459	1900	1900	24.2%
12/4	Right	U	N/A	N/A	-		-	-	-	505	1900	1900	26.6%
13/1	A47 - Northbound - On Ramp Ahead	U	N/A	N/A	C1:F		1	100	-	471	1900	1599	29.5%
13/2	A47 - Northbound - On Ramp Ahead	U	N/A	N/A	C1:F		1	100	-	71	1900	1599	4.4%
14/1	Ahead Right	U	N/A	N/A	C2:A		1	57	-	476	1900	918	51.8%
14/2	Right	U	N/A	N/A	C2:A		1	57	-	548	1900	918	59.7%
14/3	Right	U	N/A	N/A	C2:A		1	57	-	415	1900	918	45.2%
14/4	Right	U	N/A	N/A	C2:A		1	57	-	405	1900	918	44.1%
15/1	Unnamed Road - Exit	U	N/A	N/A	-		-	-	-	9	1900	1900	0.5%
16/1	Left	U	N/A	N/A	-		-	-	-	596	1900	1900	31.4%

Full Input Data And Results

16/2	Left	U	N/A	N/A	-		-	-	-	548	1900	1900	28.8%
16/3	Ahead	U	N/A	N/A	-		-	-	-	415	1900	1900	21.8%
16/4	Ahead	U	N/A	N/A	-		-	-	-	941	1900	1900	49.5%
17/1	A11 East - Exit	U	N/A	N/A	-		-	-	-	598	1900	1900	31.5%
17/2	A11 East - Exit	U	N/A	N/A	-		-	-	-	548	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	C2:C		1	59	-	415	1900	950	43.7%
18/2	Ahead Right	U	N/A	N/A	C2:C		1	59	-	574	1900	950	60.4%
18/3	Right	U	N/A	N/A	C2:C		1	59	-	367	1900	950	38.6%
19/1	A47 - Southbound On Ramp	U	N/A	N/A	-		-	-	-	504	1900	1900	26.5%
19/2	A47 - Southbound On Ramp	U	N/A	N/A	-		-	-	-	394	1900	1900	20.7%
20/1		U	N/A	N/A	-		-	-	-	471	1900	1900	24.8%
20/2		U	N/A	N/A	-		-	-	-	71	1900	1900	3.7%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Junction 5 - A47 / A11 Grade Separated Roundabout	-	-	699	0	0	58.3	16.3	0.0	74.6	-	-	-	-
Junction 5 - A47 / A11	-	-	699	0	0	58.3	16.3	0.0	74.6	-	-	-	-
1/1	2	2	2	0	0	0.0	0.0	-	0.0	2.5	0.0	0.0	0.0
2/2+2/1	394	394	-	-	-	2.6	0.4	-	3.0	27.4	7.0	0.4	7.4
2/3+2/4	508	508	-	-	-	3.4	0.4	-	3.8	26.7	7.2	0.4	7.7
3/2+3/1	828	828	-	-	-	4.6	1.0	-	5.5	24.1	9.1	1.0	10.1
3/3	526	526	-	-	-	3.1	0.6	-	3.8	25.8	12.3	0.6	12.9
4/1	447	447	-	-	-	1.8	0.4	-	2.2	17.6	8.3	0.4	8.7
4/2	271	271	-	-	-	1.0	0.2	-	1.2	15.4	4.5	0.2	4.7
4/3	280	280	-	-	-	1.0	0.2	-	1.2	15.5	4.7	0.2	4.8
4/4	505	505	-	-	-	2.2	0.4	-	2.6	18.5	9.8	0.4	10.3
5/2+5/1	191	191	382	0	0	1.2	0.2	-	1.4	26.9	4.0	0.2	4.3
5/3	315	315	315	0	0	2.8	1.0	-	3.8	43.3	8.8	1.0	9.8
6/2+6/1	129	129	-	-	-	0.8	0.1	-	0.9	23.9	2.7	0.1	2.7
6/3	536	536	-	-	-	4.1	1.0	-	5.1	34.2	14.3	1.0	15.3
7/1	504	504	-	-	-	0.1	0.2	-	0.3	2.4	2.7	0.2	3.0
7/2	394	394	-	-	-	0.0	0.2	-	0.2	2.0	1.6	0.2	1.8
8/1	485	485	-	-	-	3.0	0.7	-	3.8	28.0	9.3	0.7	10.1
8/2	541	541	-	-	-	3.5	1.0	-	4.5	30.3	10.3	1.0	11.3
8/3	334	334	-	-	-	2.0	0.4	-	2.4	25.5	6.2	0.4	6.6
9/1	904	904	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
9/2	950	950	-	-	-	0.0	0.5	-	0.5	1.9	0.0	0.5	0.5
10/1	318	318	-	-	-	1.6	0.2	-	1.8	20.2	6.0	0.2	6.2
10/2	363	363	-	-	-	1.3	0.3	-	1.6	15.6	7.0	0.3	7.2

Full Input Data And Results

10/3	179	179	-	-	-	0.0	0.1	-	0.1	3.0	0.6	0.1	0.7
11/1	390	390	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
11/2	93	93	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
12/1	452	452	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
12/2	464	464	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/3	459	459	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
12/4	505	505	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
13/1	471	471	-	-	-	0.6	0.2	-	0.8	6.3	6.4	0.2	6.6
13/2	71	71	-	-	-	0.1	0.0	-	0.1	4.6	0.7	0.0	0.8
14/1	476	476	-	-	-	3.1	0.5	-	3.6	27.2	9.5	0.5	10.1
14/2	548	548	-	-	-	3.7	0.7	-	4.4	29.0	11.0	0.7	11.7
14/3	415	415	-	-	-	2.2	0.4	-	2.6	22.6	8.5	0.4	8.9
14/4	405	405	-	-	-	1.8	0.4	-	2.2	19.7	8.5	0.4	8.9
15/1	9	9	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
16/1	596	596	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
16/2	548	548	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
16/3	415	415	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
16/4	941	941	-	-	-	0.0	0.5	-	0.5	1.9	0.0	0.5	0.5
17/1	598	598	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
17/2	548	548	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	415	415	-	-	-	1.8	0.4	-	2.2	19.3	4.7	0.4	5.1
18/2	574	574	-	-	-	2.8	0.8	-	3.6	22.5	10.3	0.8	11.0
18/3	367	367	-	-	-	2.1	0.3	-	2.4	23.5	10.8	0.3	11.1
19/1	504	504	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
19/2	394	394	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
20/1	471	471	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
20/2	71	71	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0

C1 - West Controller
C2 - East Controller

PRC for Signalled Lanes (%): 34.3
PRC for Signalled Lanes (%): 35.6
PRC Over All Lanes (%): 34.3

Total Delay for Signalled Lanes (pcuHr): 31.56
Total Delay for Signalled Lanes (pcuHr): 34.30
Total Delay Over All Lanes(pcuHr): 74.63

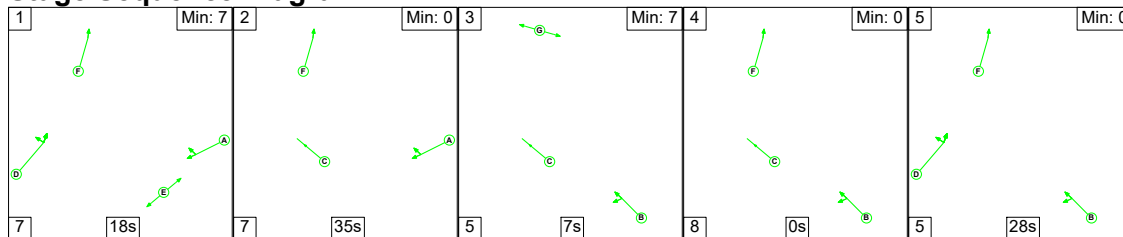
Cycle Time (s): 120
Cycle Time (s): 120

Full Input Data And Results

Scenario 2: '2021 Surveyed Flows - PM' (FG2: '2021 Surveyed Flows', Plan 1: 'Network Control Plan 1')

C1 - West Controller

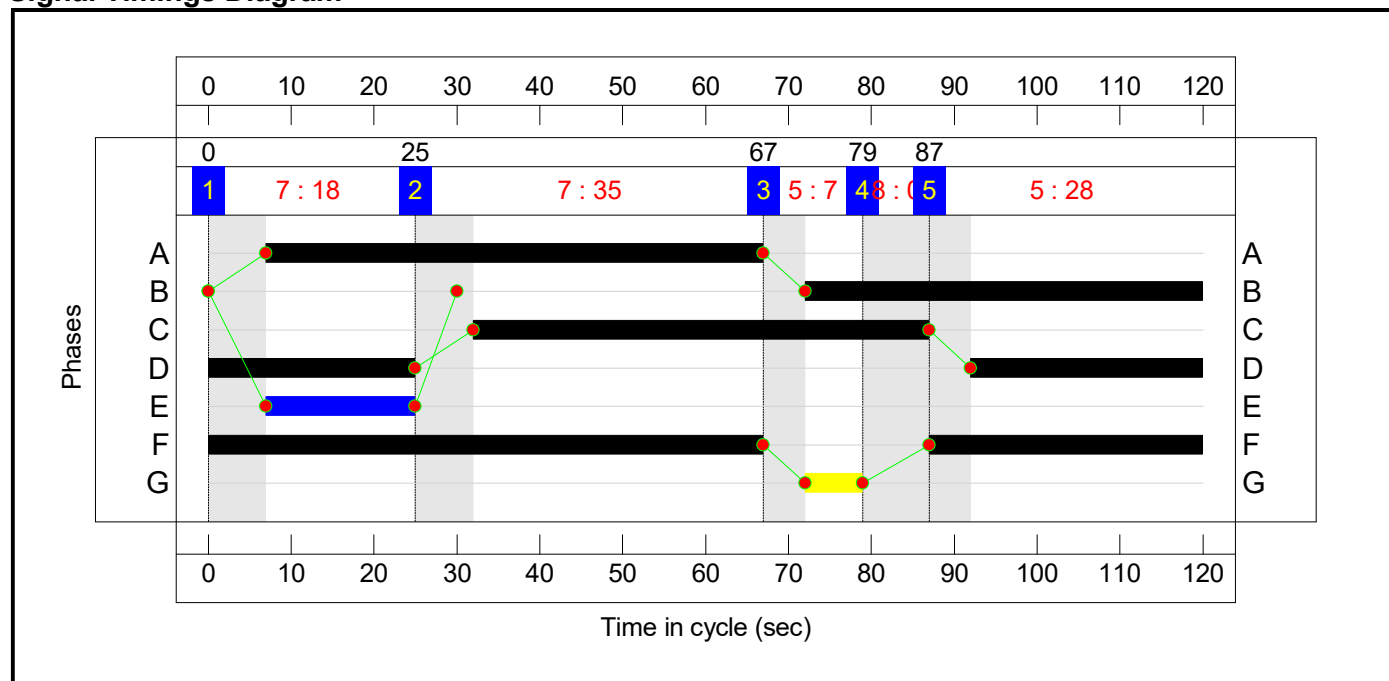
Stage Sequence Diagram



Stage Timings

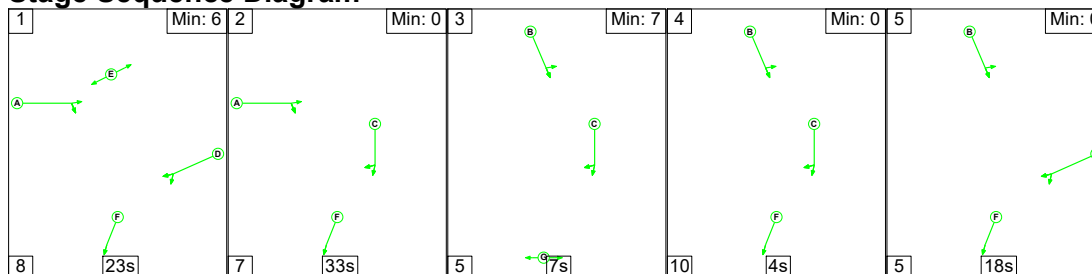
Stage	1	2	3	4	5
Duration	18	35	7	0	28
Change Point	0	25	67	79	87

Signal Timings Diagram



C2 - East Controller

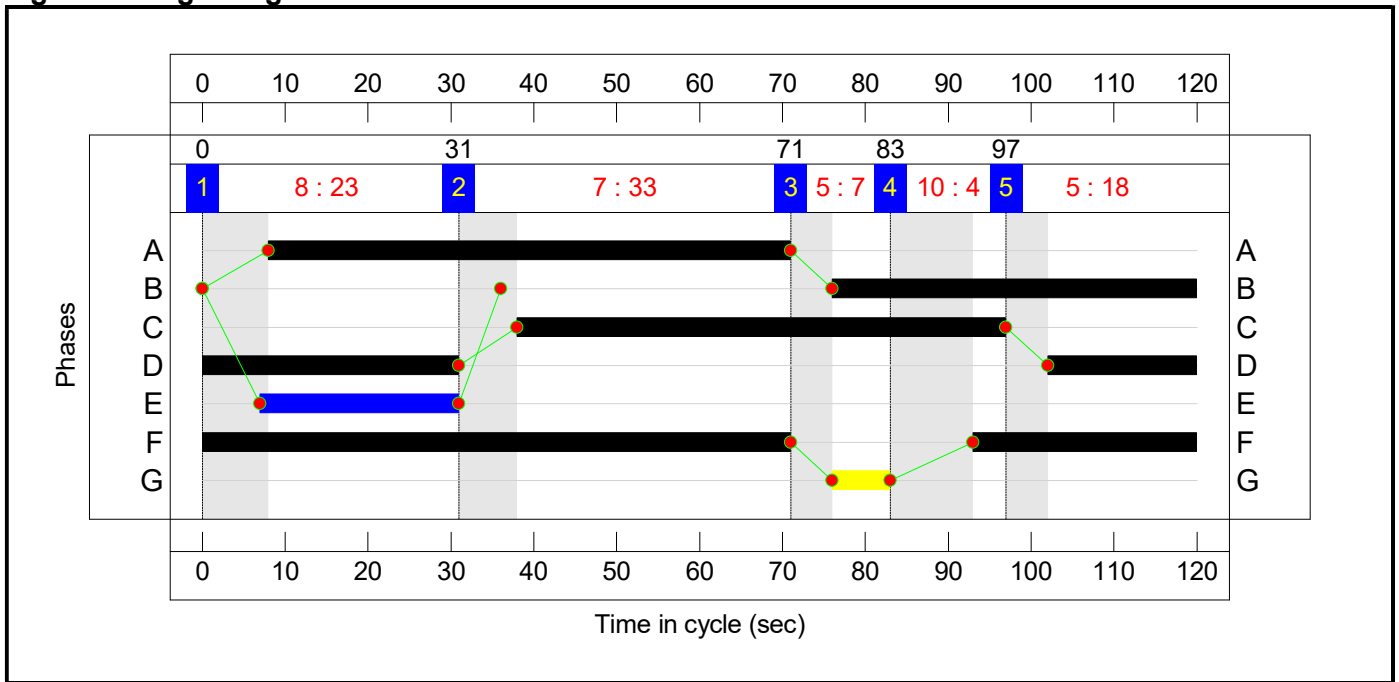
Stage Sequence Diagram



Stage Timings

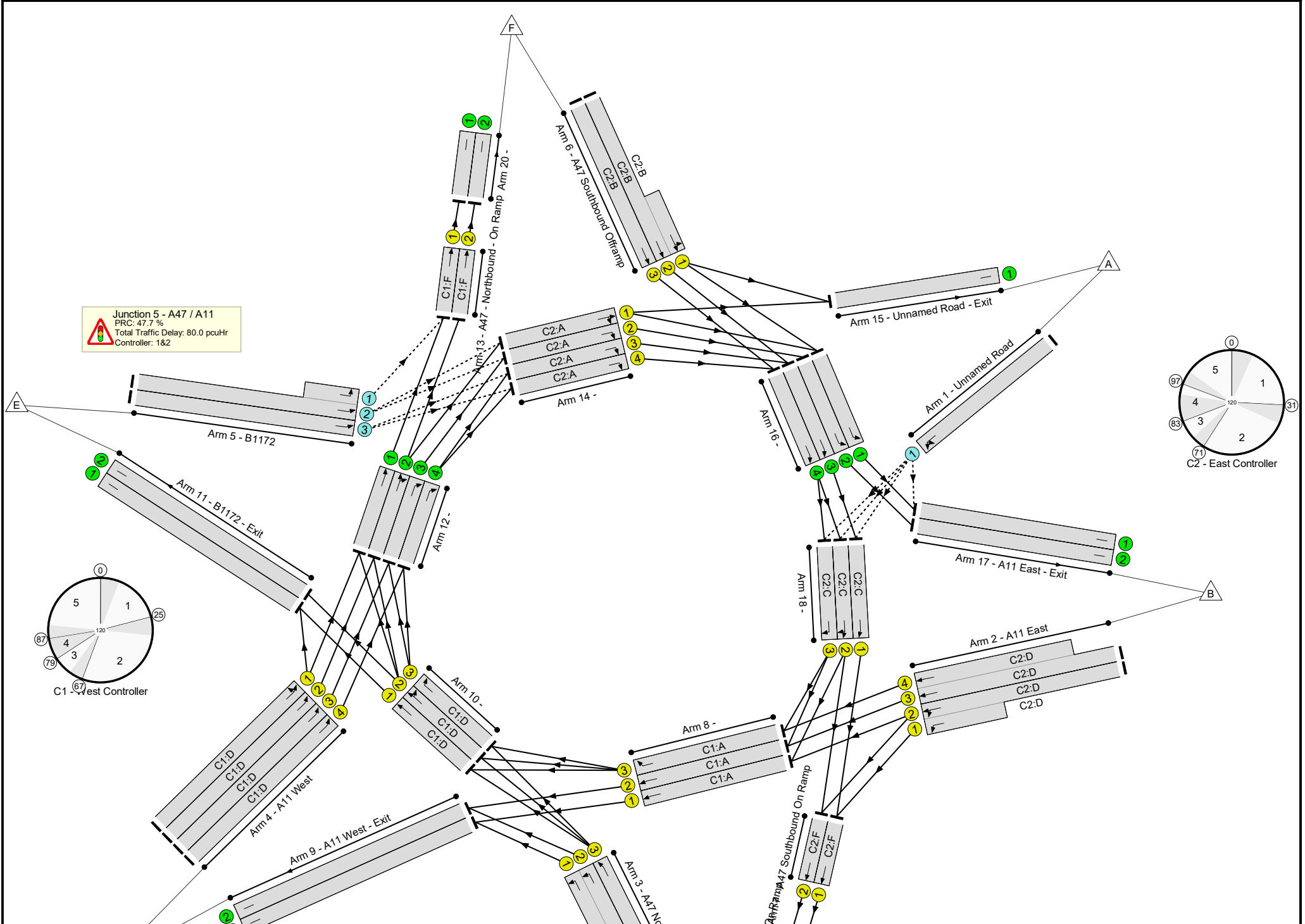
Stage	1	2	3	4	5
Duration	23	33	7	4	18
Change Point	0	31	71	83	97

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Junction 5 - A47 / A11 Grade Seperated Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	60.9%
Junction 5 - A47 / A11	-	-	N/A	-	-		-	-	-	-	-	-	60.9%
1/1	Unnamed Road Left Left2	O	N/A	N/A	-		-	-	-	1	1900	97	1.0%
2/2+2/1	A11 East Left Ahead	U	N/A	N/A	C2:D		1	49	-	569	1900:1900	594+353	60.1 : 60.1%
2/3+2/4	A11 East Ahead	U	N/A	N/A	C2:D		1	49	-	707	1900:1900	661+641	54.3 : 54.3%
3/2+3/1	A47 Northbound Off Ramp Left	U	N/A	N/A	C1:B		1	48	-	577	1900:1900	523+554	53.6 : 53.6%
3/3	A47 Northbound Off Ramp Ahead	U	N/A	N/A	C1:B		1	48	-	414	1900	776	53.4%
4/1	A11 West Left Ahead	U	N/A	N/A	C1:D		1	53	-	423	1900	855	49.5%
4/2	A11 West Ahead	U	N/A	N/A	C1:D		1	53	-	323	1900	855	37.8%
4/3	A11 West Ahead	U	N/A	N/A	C1:D		1	53	-	327	1900	855	38.2%
4/4	A11 West Ahead	U	N/A	N/A	C1:D		1	53	-	521	1900	855	60.9%
5/2+5/1	B1172 Left Ahead	O	N/A	N/A	-		-	-	-	229	1900:1900	666+172	27.3 : 27.3%
5/3	B1172 Ahead	O	N/A	N/A	-		-	-	-	376	1900	623	60.4%
6/2+6/1	A47 Southbound Offramp Left Ahead	U	N/A	N/A	C2:B		1	44	-	176	1900:1900	12+711	24.3 : 24.3%
6/3	A47 Southbound Offramp Ahead	U	N/A	N/A	C2:B		1	44	-	429	1900	713	60.2%

Full Input Data And Results

7/1	A47 Southbound On Ramp Ahead	U	N/A	N/A	C2:F		1	98	-	677	1900	1568	43.2%
7/2	A47 Southbound On Ramp Ahead	U	N/A	N/A	C2:F		1	98	-	450	1900	1568	28.7%
8/1	Ahead	U	N/A	N/A	C1:A		1	60	-	461	1900	966	47.7%
8/2	Ahead	U	N/A	N/A	C1:A		1	60	-	583	1900	966	60.4%
8/3	Right	U	N/A	N/A	C1:A		1	60	-	435	1900	966	45.0%
9/1	A11 West - Exit	U	N/A	N/A	-		-	-	-	758	1900	1900	39.9%
9/2	A11 West - Exit	U	N/A	N/A	-		-	-	-	863	1900	1900	45.4%
10/1	Ahead	U	N/A	N/A	C1:D		1	53	-	336	1900	855	39.3%
10/2	Ahead Right	U	N/A	N/A	C1:D		1	53	-	356	1900	855	41.6%
10/3	Right	U	N/A	N/A	C1:D		1	53	-	157	1900	855	18.4%
11/1	B1172 - Exit	U	N/A	N/A	-		-	-	-	395	1900	1900	20.8%
11/2	B1172 - Exit	U	N/A	N/A	-		-	-	-	135	1900	1900	7.1%
12/1	Ahead	U	N/A	N/A	-		-	-	-	474	1900	1900	24.9%
12/2	Ahead Right	U	N/A	N/A	-		-	-	-	434	1900	1900	22.8%
12/3	Right	U	N/A	N/A	-		-	-	-	484	1900	1900	25.5%
12/4	Right	U	N/A	N/A	-		-	-	-	521	1900	1900	27.4%
13/1	A47 - Northbound - On Ramp Ahead	U	N/A	N/A	C1:F		1	100	-	521	1900	1599	32.6%
13/2	A47 - Northbound - On Ramp Ahead	U	N/A	N/A	C1:F		1	100	-	81	1900	1599	5.1%
14/1	Ahead Right	U	N/A	N/A	C2:A		1	63	-	458	1900	1013	45.2%
14/2	Right	U	N/A	N/A	C2:A		1	63	-	561	1900	1013	55.4%
14/3	Right	U	N/A	N/A	C2:A		1	63	-	462	1900	1013	45.6%
14/4	Right	U	N/A	N/A	C2:A		1	63	-	435	1900	1013	42.9%
15/1	Unnamed Road - Exit	U	N/A	N/A	-		-	-	-	3	1900	1900	0.2%
16/1	Left	U	N/A	N/A	-		-	-	-	628	1900	1900	33.1%

Full Input Data And Results

16/2	Left	U	N/A	N/A	-		-	-	-	561	1900	1900	29.5%
16/3	Ahead	U	N/A	N/A	-		-	-	-	465	1900	1900	24.5%
16/4	Ahead	U	N/A	N/A	-		-	-	-	864	1900	1900	45.5%
17/1	A11 East - Exit	U	N/A	N/A	-		-	-	-	628	1900	1900	33.1%
17/2	A11 East - Exit	U	N/A	N/A	-		-	-	-	561	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	C2:C		1	59	-	465	1900	950	48.9%
18/2	Ahead Right	U	N/A	N/A	C2:C		1	59	-	554	1900	950	58.3%
18/3	Right	U	N/A	N/A	C2:C		1	59	-	311	1900	950	32.7%
19/1	A47 - Southbound On Ramp	U	N/A	N/A	-		-	-	-	677	1900	1900	35.6%
19/2	A47 - Southbound On Ramp	U	N/A	N/A	-		-	-	-	450	1900	1900	23.7%
20/1		U	N/A	N/A	-		-	-	-	521	1900	1900	27.4%
20/2		U	N/A	N/A	-		-	-	-	81	1900	1900	4.3%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Junction 5 - A47 / A11 Grade Separated Roundabout	-	-	835	0	0	63.7	16.3	0.0	80.0	-	-	-	-
Junction 5 - A47 / A11	-	-	835	0	0	63.7	16.3	0.0	80.0	-	-	-	-
1/1	1	1	1	0	0	0.0	0.0	-	0.0	58.9	0.0	0.0	0.0
2/2+2/1	569	569	-	-	-	3.9	0.7	-	4.6	29.1	8.9	0.7	9.7
2/3+2/4	707	707	-	-	-	4.9	0.6	-	5.5	28.1	8.6	0.6	9.2
3/2+3/1	577	577	-	-	-	4.0	0.6	-	4.5	28.4	6.9	0.6	7.5
3/3	414	414	-	-	-	3.1	0.6	-	3.7	31.8	10.3	0.6	10.9
4/1	423	423	-	-	-	2.7	0.5	-	3.2	27.5	9.9	0.5	10.4
4/2	323	323	-	-	-	2.0	0.3	-	2.3	25.3	7.1	0.3	7.4
4/3	327	327	-	-	-	2.0	0.3	-	2.3	25.3	7.2	0.3	7.5
4/4	521	521	-	-	-	3.6	0.8	-	4.4	30.4	13.0	0.8	13.8
5/2+5/1	229	229	458	0	0	0.9	0.2	-	1.1	16.8	3.5	0.2	3.7
5/3	376	376	376	0	0	2.5	0.8	-	3.3	31.3	9.4	0.8	10.2
6/2+6/1	176	176	-	-	-	1.3	0.2	-	1.4	29.0	3.9	0.2	4.1
6/3	429	429	-	-	-	3.6	0.8	-	4.4	36.6	11.4	0.8	12.2
7/1	677	677	-	-	-	1.1	0.4	-	1.5	8.1	9.2	0.4	9.6
7/2	450	450	-	-	-	0.8	0.2	-	1.0	8.2	6.7	0.2	6.9
8/1	461	461	-	-	-	1.8	0.5	-	2.2	17.5	8.0	0.5	8.5
8/2	583	583	-	-	-	3.2	0.8	-	4.0	24.4	15.0	0.8	15.7
8/3	435	435	-	-	-	1.2	0.4	-	1.6	13.2	3.8	0.4	4.2
9/1	758	758	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
9/2	863	863	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
10/1	336	336	-	-	-	2.2	0.3	-	2.5	27.3	7.0	0.3	7.3
10/2	356	356	-	-	-	2.5	0.4	-	2.8	28.7	8.8	0.4	9.2

Full Input Data And Results

10/3	157	157	-	-	-	0.3	0.1	-	0.4	9.6	0.7	0.1	0.8
11/1	395	395	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
11/2	135	135	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
12/1	474	474	-	-	-	0.0	0.2	-	0.2	1.3	1.6	0.2	1.8
12/2	434	434	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
12/3	484	484	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/4	521	521	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
13/1	521	521	-	-	-	0.5	0.2	-	0.7	4.9	4.8	0.2	5.0
13/2	81	81	-	-	-	0.0	0.0	-	0.1	3.3	0.5	0.0	0.5
14/1	458	458	-	-	-	2.0	0.4	-	2.4	19.0	6.6	0.4	7.1
14/2	561	561	-	-	-	2.8	0.6	-	3.4	21.6	8.1	0.6	8.7
14/3	462	462	-	-	-	2.0	0.4	-	2.4	18.8	8.0	0.4	8.5
14/4	435	435	-	-	-	1.9	0.4	-	2.2	18.6	8.5	0.4	8.9
15/1	3	3	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
16/1	628	628	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
16/2	561	561	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
16/3	465	465	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
16/4	864	864	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
17/1	628	628	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
17/2	561	561	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	465	465	-	-	-	3.2	0.5	-	3.7	28.5	9.1	0.5	9.6
18/2	554	554	-	-	-	3.2	0.7	-	3.9	25.5	11.3	0.7	12.0
18/3	311	311	-	-	-	0.6	0.2	-	0.8	9.6	6.5	0.2	6.7
19/1	677	677	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
19/2	450	450	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
20/1	521	521	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
20/2	81	81	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0

C1 - West Controller
C2 - East Controller

PRC for Signalled Lanes (%): 47.7
PRC for Signalled Lanes (%): 49.5
PRC Over All Lanes (%): 47.7

Total Delay for Signalled Lanes (pcuHr): 34.78
Total Delay for Signalled Lanes (pcuHr): 37.32
Total Delay Over All Lanes(pcuHr): 79.97

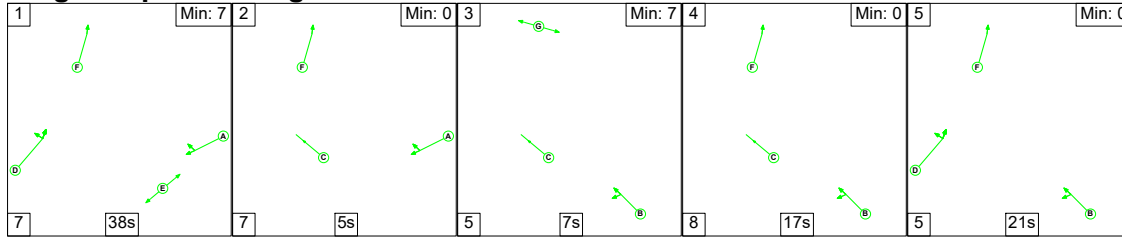
Cycle Time (s): 120
Cycle Time (s): 120

Full Input Data And Results

Scenario 3: '2025 Forecast Baseline - AM' (FG3: '2025 Forecast Baseline', Plan 1: 'Network Control Plan 1')

C1 - West Controller

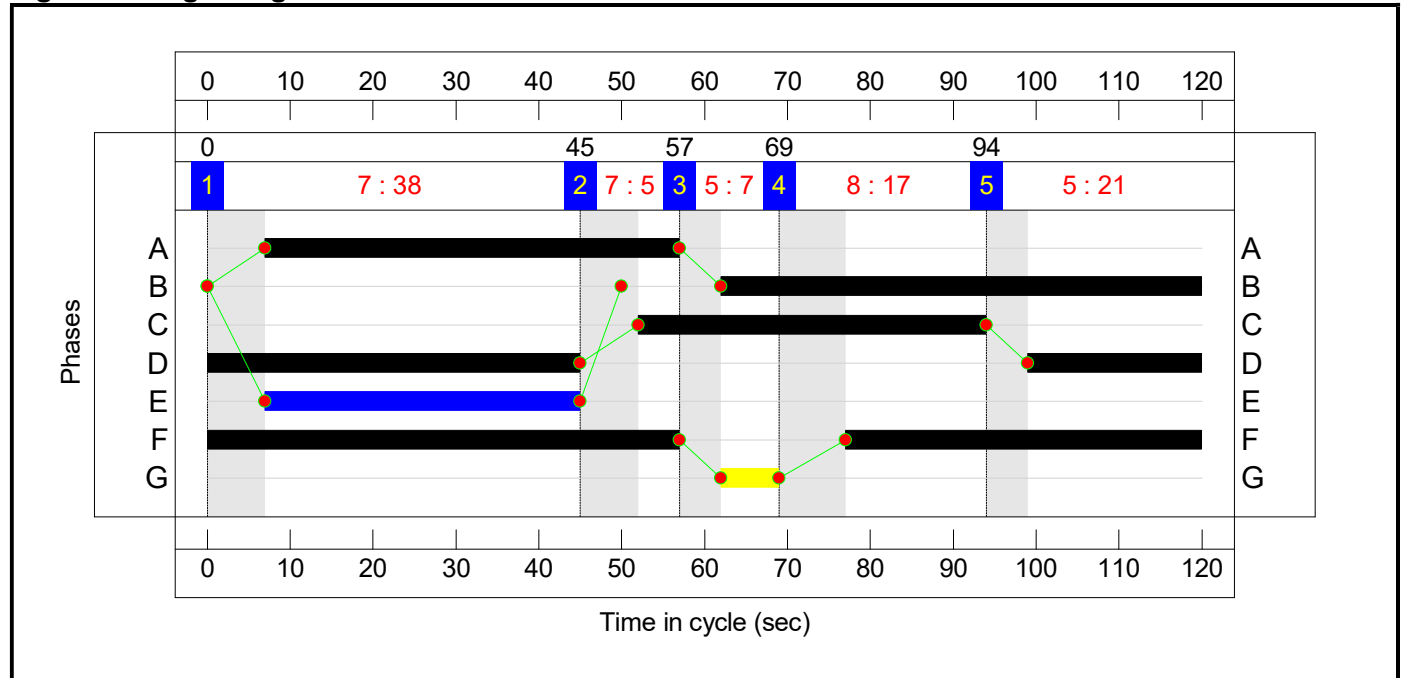
Stage Sequence Diagram



Stage Timings

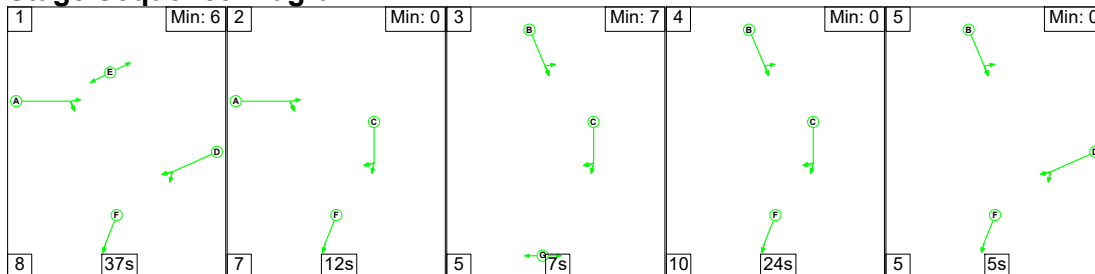
Stage	1	2	3	4	5
Duration	38	5	7	17	21
Change Point	0	45	57	69	94

Signal Timings Diagram



C2 - East Controller

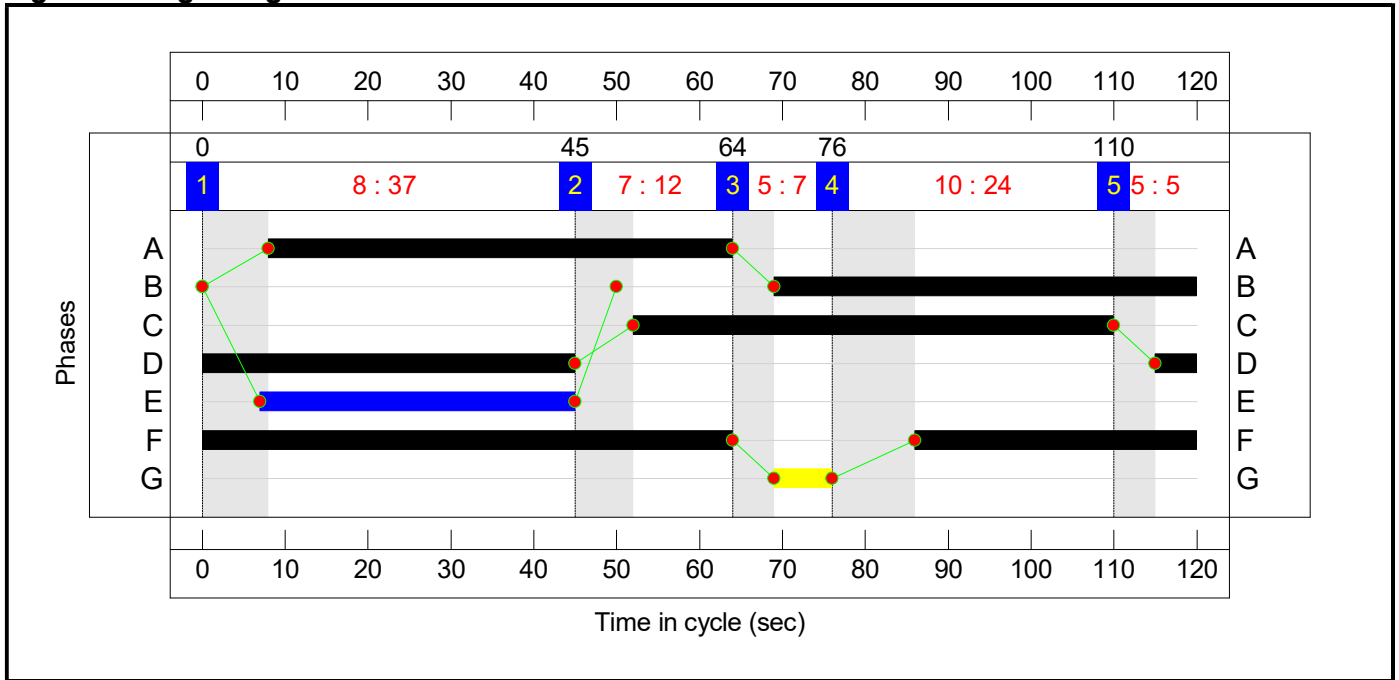
Stage Sequence Diagram



Stage Timings

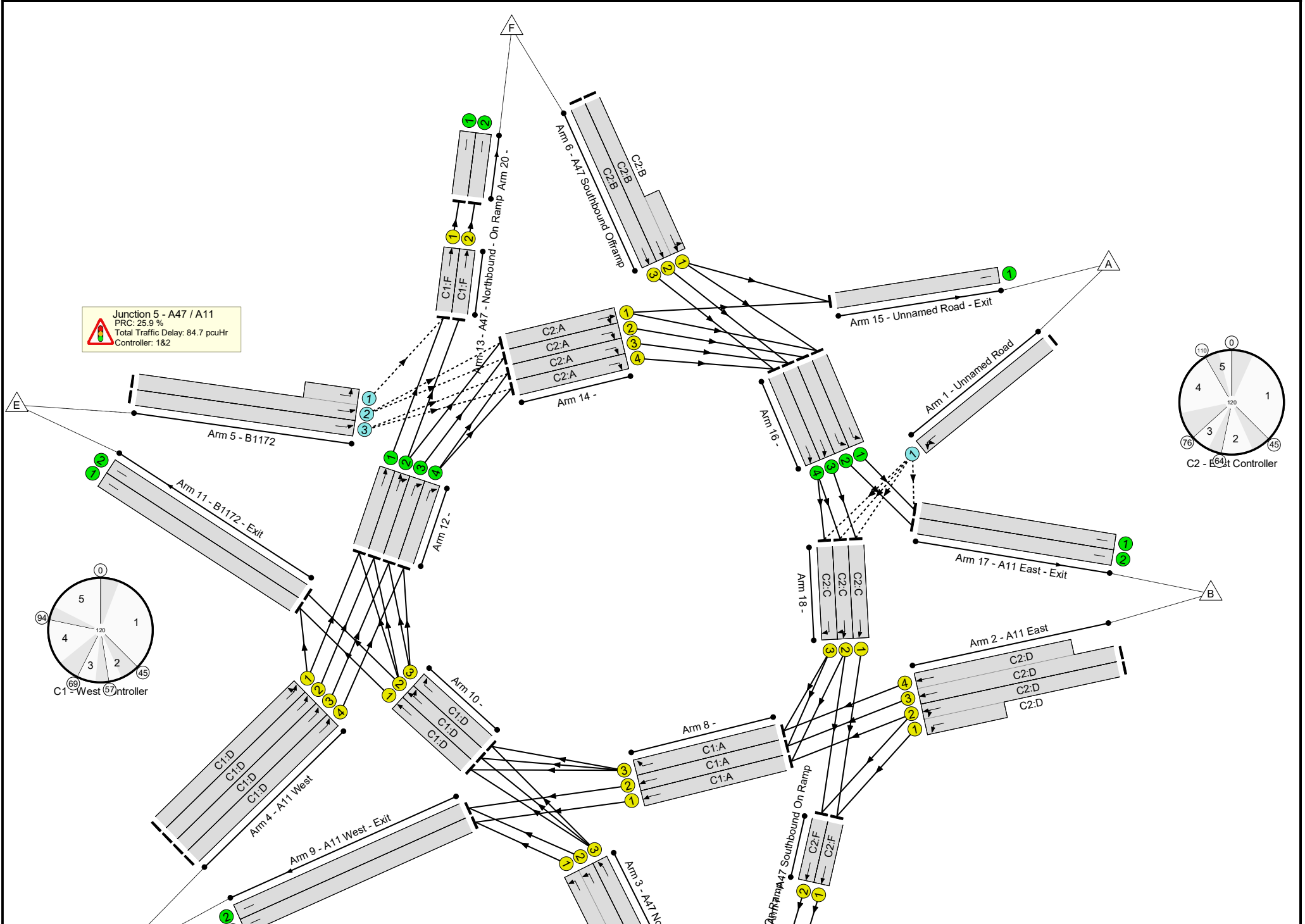
Stage	1	2	3	4	5
Duration	37	12	7	24	5
Change Point	0	45	64	76	110

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Junction 5 - A47 / A11 Grade Seperated Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	71.5%
Junction 5 - A47 / A11	-	-	N/A	-	-		-	-	-	-	-	-	71.5%
1/1	Unnamed Road Left Left2	O	N/A	N/A	-		-	-	-	2	1900	745	0.3%
2/2+2/1	A11 East Left Ahead	U	N/A	N/A	C2:D		1	50	-	425	1900:1900	726+143	48.9 : 48.9%
2/3+2/4	A11 East Ahead	U	N/A	N/A	C2:D		1	50	-	547	1900:1900	704+435	48.0 : 48.0%
3/2+3/1	A47 Northbound Off Ramp Left	U	N/A	N/A	C1:B		1	58	-	892	1900:1900	618+629	71.5 : 71.5%
3/3	A47 Northbound Off Ramp Ahead	U	N/A	N/A	C1:B		1	58	-	567	1900	934	60.7%
4/1	A11 West Left Ahead	U	N/A	N/A	C1:D		1	66	-	482	1900	1061	45.4%
4/2	A11 West Ahead	U	N/A	N/A	C1:D		1	66	-	293	1900	1061	27.6%
4/3	A11 West Ahead	U	N/A	N/A	C1:D		1	66	-	301	1900	1061	28.4%
4/4	A11 West Ahead	U	N/A	N/A	C1:D		1	66	-	544	1900	1061	51.3%
5/2+5/1	B1172 Left Ahead	O	N/A	N/A	-		-	-	-	205	1900:1900	522+56	35.5 : 35.5%
5/3	B1172 Ahead	O	N/A	N/A	-		-	-	-	339	1900	478	71.0%
6/2+6/1	A47 Southbound Offramp Left Ahead	U	N/A	N/A	C2:B		1	51	-	139	1900:1900	0+823	0.0 : 16.9%
6/3	A47 Southbound Offramp Ahead	U	N/A	N/A	C2:B		1	51	-	578	1900	823	70.2%

Full Input Data And Results

7/1	A47 Southbound On Ramp Ahead	U	N/A	N/A	C2:F		1	98	-	523	1900	1568	33.4%
7/2	A47 Southbound On Ramp Ahead	U	N/A	N/A	C2:F		1	98	-	444	1900	1568	28.3%
8/1	Ahead	U	N/A	N/A	C1:A		1	50	-	530	1900	808	65.6%
8/2	Ahead	U	N/A	N/A	C1:A		1	50	-	576	1900	808	71.3%
8/3	Right	U	N/A	N/A	C1:A		1	50	-	360	1900	808	44.6%
9/1	A11 West - Exit	U	N/A	N/A	-		-	-	-	980	1900	1900	51.6%
9/2	A11 West - Exit	U	N/A	N/A	-		-	-	-	1018	1900	1900	53.6%
10/1	Ahead	U	N/A	N/A	C1:D		1	66	-	327	1900	1061	30.8%
10/2	Ahead Right	U	N/A	N/A	C1:D		1	66	-	406	1900	1061	38.3%
10/3	Right	U	N/A	N/A	C1:D		1	66	-	194	1900	1061	18.3%
11/1	B1172 - Exit	U	N/A	N/A	-		-	-	-	405	1900	1900	21.3%
11/2	B1172 - Exit	U	N/A	N/A	-		-	-	-	116	1900	1900	6.1%
12/1	Ahead	U	N/A	N/A	-		-	-	-	479	1900	1900	25.2%
12/2	Ahead Right	U	N/A	N/A	-		-	-	-	508	1900	1900	26.7%
12/3	Right	U	N/A	N/A	-		-	-	-	495	1900	1900	26.1%
12/4	Right	U	N/A	N/A	-		-	-	-	544	1900	1900	28.6%
13/1	A47 - Northbound - On Ramp Ahead	U	N/A	N/A	C1:F		1	100	-	499	1900	1599	31.2%
13/2	A47 - Northbound - On Ramp Ahead	U	N/A	N/A	C1:F		1	100	-	85	1900	1599	5.3%
14/1	Ahead Right	U	N/A	N/A	C2:A		1	56	-	525	1900	903	58.2%
14/2	Right	U	N/A	N/A	C2:A		1	56	-	578	1900	903	64.0%
14/3	Right	U	N/A	N/A	C2:A		1	56	-	453	1900	903	50.2%
14/4	Right	U	N/A	N/A	C2:A		1	56	-	430	1900	903	47.6%
15/1	Unnamed Road - Exit	U	N/A	N/A	-		-	-	-	9	1900	1900	0.5%
16/1	Left	U	N/A	N/A	-		-	-	-	655	1900	1900	34.5%

Full Input Data And Results

16/2	Left	U	N/A	N/A	-		-	-	-	578	1900	1900	30.4%
16/3	Ahead	U	N/A	N/A	-		-	-	-	453	1900	1900	23.8%
16/4	Ahead	U	N/A	N/A	-		-	-	-	1008	1900	1900	53.1%
17/1	A11 East - Exit	U	N/A	N/A	-		-	-	-	657	1900	1900	34.6%
17/2	A11 East - Exit	U	N/A	N/A	-		-	-	-	578	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	C2:C		1	58	-	453	1900	934	48.5%
18/2	Ahead Right	U	N/A	N/A	C2:C		1	58	-	619	1900	934	66.3%
18/3	Right	U	N/A	N/A	C2:C		1	58	-	389	1900	934	41.6%
19/1	A47 - Southbound On Ramp	U	N/A	N/A	-		-	-	-	523	1900	1900	27.5%
19/2	A47 - Southbound On Ramp	U	N/A	N/A	-		-	-	-	444	1900	1900	23.4%
20/1		U	N/A	N/A	-		-	-	-	499	1900	1900	26.3%
20/2		U	N/A	N/A	-		-	-	-	85	1900	1900	4.5%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Junction 5 - A47 / A11 Grade Separated Roundabout	-	-	751	0	0	65.4	19.3	0.0	84.7	-	-	-	-
Junction 5 - A47 / A11	-	-	751	0	0	65.4	19.3	0.0	84.7	-	-	-	-
1/1	2	2	2	0	0	0.0	0.0	-	0.0	3.1	0.0	0.0	0.0
2/2+2/1	425	425	-	-	-	2.8	0.5	-	3.3	27.8	8.3	0.5	8.8
2/3+2/4	547	547	-	-	-	3.6	0.5	-	4.0	26.5	7.8	0.5	8.3
3/2+3/1	892	892	-	-	-	5.0	1.2	-	6.3	25.3	9.9	1.2	11.1
3/3	567	567	-	-	-	3.5	0.8	-	4.2	27.0	13.5	0.8	14.3
4/1	482	482	-	-	-	2.1	0.4	-	2.5	18.8	9.5	0.4	9.9
4/2	293	293	-	-	-	1.1	0.2	-	1.3	16.2	5.0	0.2	5.2
4/3	301	301	-	-	-	1.2	0.2	-	1.4	16.3	5.2	0.2	5.4
4/4	544	544	-	-	-	2.5	0.5	-	3.0	19.9	11.2	0.5	11.7
5/2+5/1	205	205	410	0	0	1.3	0.3	-	1.6	27.5	4.4	0.3	4.6
5/3	339	339	339	0	0	3.1	1.2	-	4.3	45.5	9.7	1.2	10.9
6/2+6/1	139	139	-	-	-	0.8	0.1	-	0.9	23.4	2.8	0.1	2.9
6/3	578	578	-	-	-	4.4	1.2	-	5.6	35.0	15.6	1.2	16.7
7/1	523	523	-	-	-	0.1	0.3	-	0.3	2.3	2.7	0.3	3.0
7/2	444	444	-	-	-	0.1	0.2	-	0.3	2.1	1.8	0.2	2.0
8/1	530	530	-	-	-	3.3	0.9	-	4.3	29.0	10.6	0.9	11.5
8/2	576	576	-	-	-	3.8	1.2	-	5.0	31.3	11.3	1.2	12.6
8/3	360	360	-	-	-	2.2	0.4	-	2.6	25.6	6.6	0.4	7.0
9/1	980	980	-	-	-	0.0	0.5	-	0.5	2.0	0.0	0.5	0.5
9/2	1018	1018	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6
10/1	327	327	-	-	-	1.6	0.2	-	1.8	20.1	6.1	0.2	6.3
10/2	406	406	-	-	-	1.7	0.3	-	2.0	17.9	8.6	0.3	8.9

Full Input Data And Results

10/3	194	194	-	-	-	0.1	0.1	-	0.2	3.2	0.8	0.1	0.9
11/1	405	405	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
11/2	116	116	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
12/1	479	479	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/2	508	508	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/3	495	495	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/4	544	544	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
13/1	499	499	-	-	-	0.8	0.2	-	1.0	7.2	7.7	0.2	7.9
13/2	85	85	-	-	-	0.1	0.0	-	0.1	5.1	1.0	0.0	1.0
14/1	525	525	-	-	-	3.8	0.7	-	4.5	30.6	11.4	0.7	12.1
14/2	578	578	-	-	-	4.3	0.9	-	5.2	32.3	12.2	0.9	13.1
14/3	453	453	-	-	-	2.8	0.5	-	3.3	26.0	9.8	0.5	10.4
14/4	430	430	-	-	-	2.1	0.5	-	2.6	21.4	9.3	0.5	9.8
15/1	9	9	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
16/1	655	655	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
16/2	578	578	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
16/3	453	453	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
16/4	1008	1008	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6
17/1	657	657	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
17/2	578	578	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	453	453	-	-	-	2.1	0.5	-	2.6	20.5	5.3	0.5	5.8
18/2	619	619	-	-	-	3.2	1.0	-	4.1	24.0	11.3	1.0	12.3
18/3	389	389	-	-	-	2.2	0.4	-	2.6	23.8	11.6	0.4	12.0
19/1	523	523	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
19/2	444	444	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
20/1	499	499	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
20/2	85	85	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0

C1 - West Controller
C2 - East Controller

PRC for Signalled Lanes (%): 25.9
PRC for Signalled Lanes (%): 28.2
PRC Over All Lanes (%): 25.9

Total Delay for Signalled Lanes (pcuHr): 35.66
Total Delay for Signalled Lanes (pcuHr): 39.18
Total Delay Over All Lanes(pcuHr): 84.71

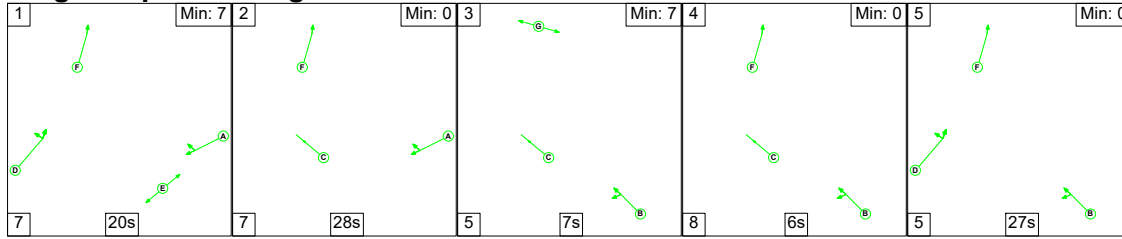
Cycle Time (s): 120
Cycle Time (s): 120

Full Input Data And Results

Scenario 4: '2025 Forecast Baseline - PM' (FG4: '2025 Forecast Baseline', Plan 1: 'Network Control Plan 1')

C1 - West Controller

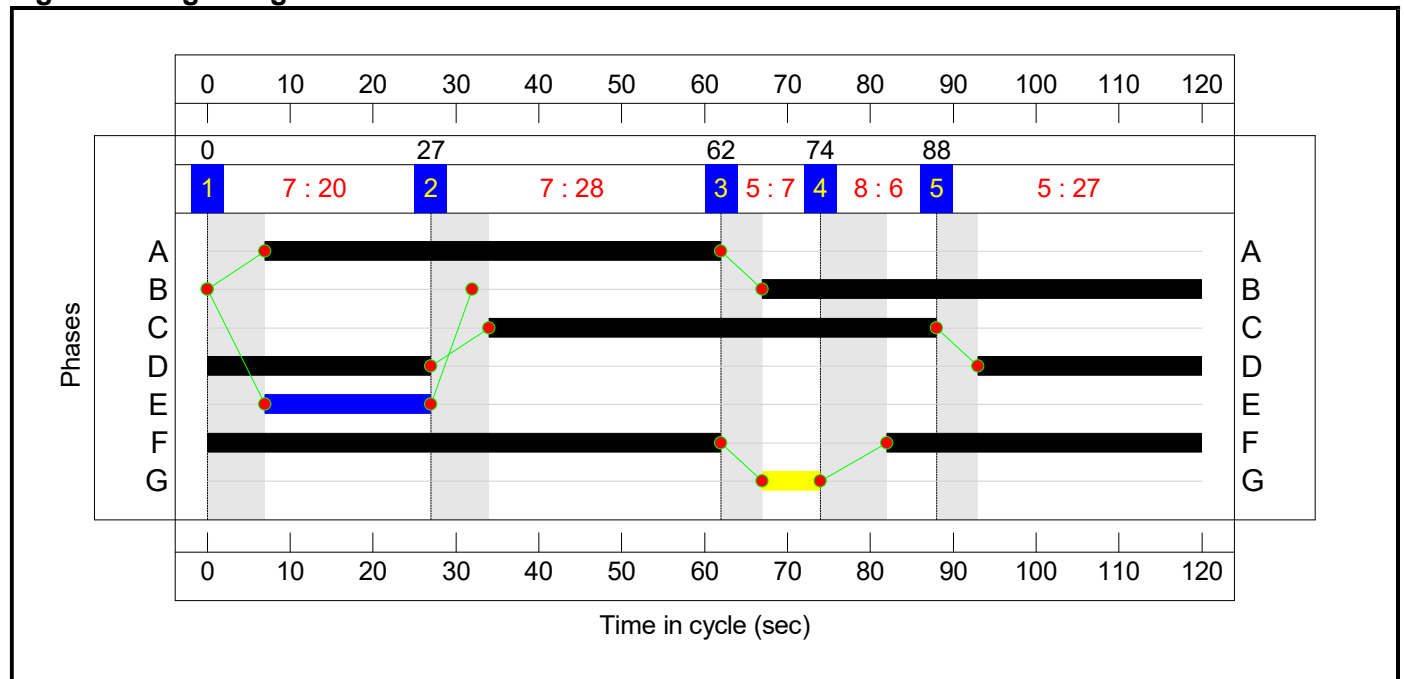
Stage Sequence Diagram



Stage Timings

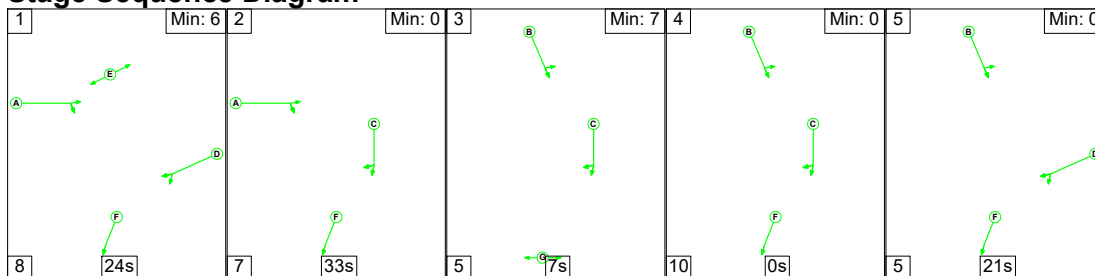
Stage	1	2	3	4	5
Duration	20	28	7	6	27
Change Point	0	27	62	74	88

Signal Timings Diagram



C2 - East Controller

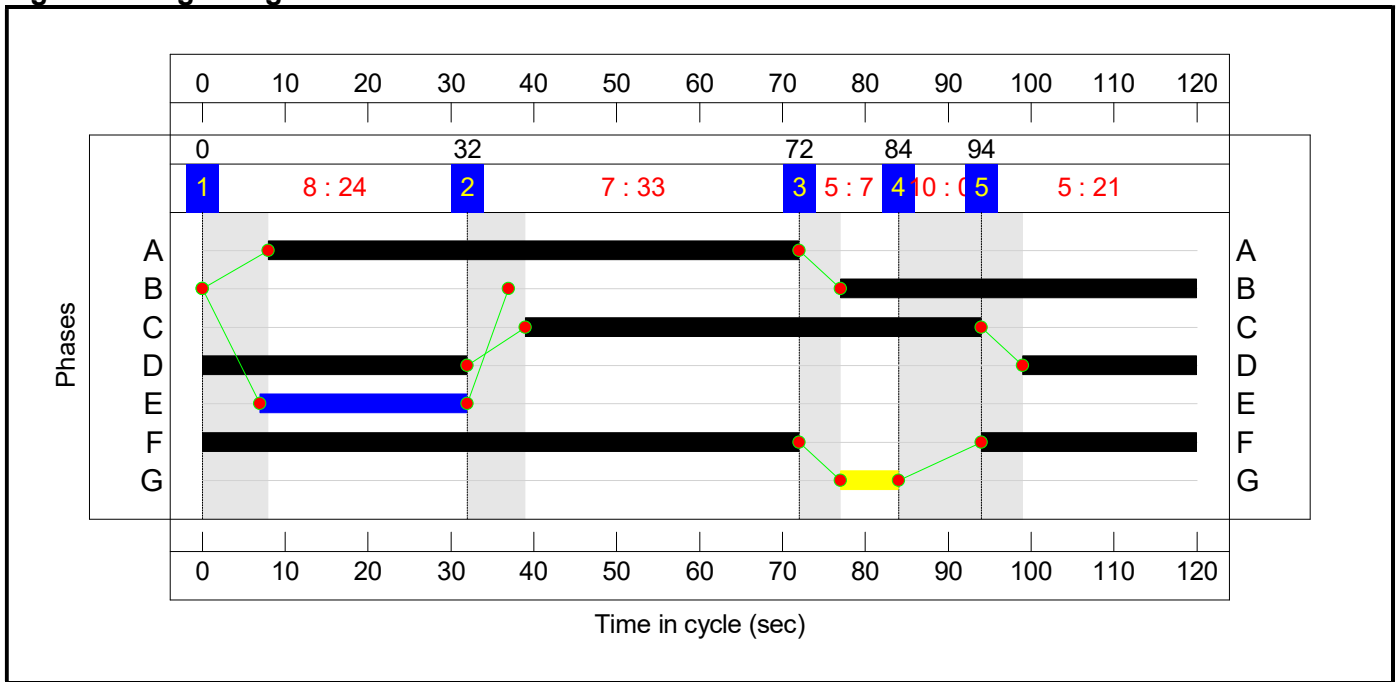
Stage Sequence Diagram



Stage Timings

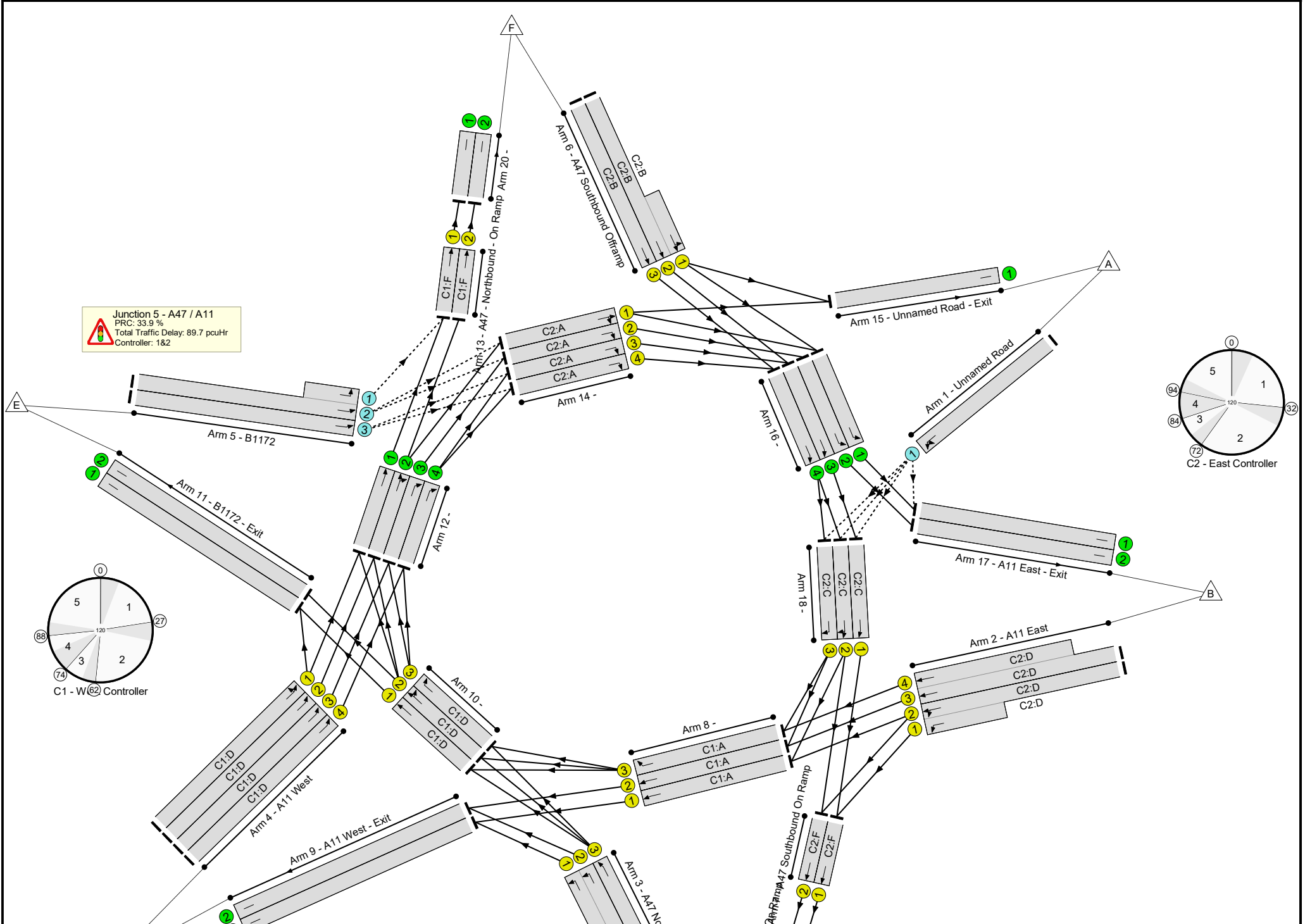
Stage	1	2	3	4	5
Duration	24	33	7	0	21
Change Point	0	32	72	84	94

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Junction 5 - A47 / A11 Grade Seperated Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	67.2%
Junction 5 - A47 / A11	-	-	N/A	-	-		-	-	-	-	-	-	67.2%
1/1	Unnamed Road Left Left2	O	N/A	N/A	-		-	-	-	1	1900	71	1.4%
2/2+2/1	A11 East Left Ahead	U	N/A	N/A	C2:D		1	53	-	671	1900:1900	640+366	66.7 : 66.7%
2/3+2/4	A11 East Ahead	U	N/A	N/A	C2:D		1	53	-	705	1900:1900	618+702	53.4 : 53.4%
3/2+3/1	A47 Northbound Off Ramp Left	U	N/A	N/A	C1:B		1	53	-	623	1900:1900	577+590	53.4 : 53.4%
3/3	A47 Northbound Off Ramp Ahead	U	N/A	N/A	C1:B		1	53	-	447	1900	855	52.3%
4/1	A11 West Left Ahead	U	N/A	N/A	C1:D		1	54	-	457	1900	871	52.5%
4/2	A11 West Ahead	U	N/A	N/A	C1:D		1	54	-	352	1900	871	40.4%
4/3	A11 West Ahead	U	N/A	N/A	C1:D		1	54	-	349	1900	871	40.1%
4/4	A11 West Ahead	U	N/A	N/A	C1:D		1	54	-	562	1900	871	64.5%
5/2+5/1	B1172 Left Ahead	O	N/A	N/A	-		-	-	-	247	1900:1900	650+169	30.1 : 30.1%
5/3	B1172 Ahead	O	N/A	N/A	-		-	-	-	406	1900	605	67.2%
6/2+6/1	A47 Southbound Offramp Left Ahead	U	N/A	N/A	C2:B		1	43	-	190	1900:1900	11+696	26.9 : 26.9%
6/3	A47 Southbound Offramp Ahead	U	N/A	N/A	C2:B		1	43	-	463	1900	697	66.5%

Full Input Data And Results

7/1	A47 Southbound On Ramp Ahead	U	N/A	N/A	C2:F		1	98	-	733	1900	1568	46.8%
7/2	A47 Southbound On Ramp Ahead	U	N/A	N/A	C2:F		1	98	-	483	1900	1568	30.8%
8/1	Ahead	U	N/A	N/A	C1:A		1	55	-	540	1900	887	60.9%
8/2	Ahead	U	N/A	N/A	C1:A		1	55	-	586	1900	887	66.1%
8/3	Right	U	N/A	N/A	C1:A		1	55	-	469	1900	887	52.9%
9/1	A11 West - Exit	U	N/A	N/A	-		-	-	-	855	1900	1900	45.0%
9/2	A11 West - Exit	U	N/A	N/A	-		-	-	-	894	1900	1900	47.1%
10/1	Ahead	U	N/A	N/A	C1:D		1	54	-	364	1900	871	41.8%
10/2	Ahead Right	U	N/A	N/A	C1:D		1	54	-	395	1900	871	45.4%
10/3	Right	U	N/A	N/A	C1:D		1	54	-	157	1900	871	18.0%
11/1	B1172 - Exit	U	N/A	N/A	-		-	-	-	428	1900	1900	22.5%
11/2	B1172 - Exit	U	N/A	N/A	-		-	-	-	144	1900	1900	7.6%
12/1	Ahead	U	N/A	N/A	-		-	-	-	483	1900	1900	25.4%
12/2	Ahead Right	U	N/A	N/A	-		-	-	-	513	1900	1900	27.0%
12/3	Right	U	N/A	N/A	-		-	-	-	506	1900	1900	26.6%
12/4	Right	U	N/A	N/A	-		-	-	-	562	1900	1900	29.6%
13/1	A47 - Northbound - On Ramp Ahead	U	N/A	N/A	C1:F		1	100	-	534	1900	1599	33.4%
13/2	A47 - Northbound - On Ramp Ahead	U	N/A	N/A	C1:F		1	100	-	116	1900	1599	7.3%
14/1	Ahead Right	U	N/A	N/A	C2:A		1	64	-	501	1900	1029	48.7%
14/2	Right	U	N/A	N/A	C2:A		1	64	-	598	1900	1029	58.1%
14/3	Right	U	N/A	N/A	C2:A		1	64	-	486	1900	1029	47.2%
14/4	Right	U	N/A	N/A	C2:A		1	64	-	482	1900	1029	46.8%
15/1	Unnamed Road - Exit	U	N/A	N/A	-		-	-	-	3	1900	1900	0.2%
16/1	Left	U	N/A	N/A	-		-	-	-	685	1900	1900	36.1%

Full Input Data And Results

16/2	Left	U	N/A	N/A	-		-	-	-	598	1900	1900	31.5%
16/3	Ahead	U	N/A	N/A	-		-	-	-	489	1900	1900	25.7%
16/4	Ahead	U	N/A	N/A	-		-	-	-	945	1900	1900	49.7%
17/1	A11 East - Exit	U	N/A	N/A	-		-	-	-	685	1900	1900	36.1%
17/2	A11 East - Exit	U	N/A	N/A	-		-	-	-	598	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	C2:C		1	55	-	489	1900	887	55.2%
18/2	Ahead Right	U	N/A	N/A	C2:C		1	55	-	596	1900	887	67.2%
18/3	Right	U	N/A	N/A	C2:C		1	55	-	350	1900	887	39.5%
19/1	A47 - Southbound On Ramp	U	N/A	N/A	-		-	-	-	733	1900	1900	38.6%
19/2	A47 - Southbound On Ramp	U	N/A	N/A	-		-	-	-	483	1900	1900	25.4%
20/1		U	N/A	N/A	-		-	-	-	534	1900	1900	28.1%
20/2		U	N/A	N/A	-		-	-	-	116	1900	1900	6.1%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Junction 5 - A47 / A11 Grade Separated Roundabout	-	-	901	0	0	70.4	19.3	0.0	89.7	-	-	-	-
Junction 5 - A47 / A11	-	-	901	0	0	70.4	19.3	0.0	89.7	-	-	-	-
1/1	1	1	1	0	0	0.0	0.0	-	0.0	69.3	0.0	0.0	0.0
2/2+2/1	671	671	-	-	-	4.3	1.0	-	5.3	28.2	11.8	1.0	12.8
2/3+2/4	705	705	-	-	-	4.4	0.6	-	4.9	25.2	8.5	0.6	9.1
3/2+3/1	623	623	-	-	-	3.8	0.6	-	4.3	25.0	6.9	0.6	7.5
3/3	447	447	-	-	-	2.9	0.5	-	3.5	28.1	10.7	0.5	11.2
4/1	457	457	-	-	-	2.9	0.6	-	3.5	27.5	10.8	0.6	11.3
4/2	352	352	-	-	-	2.1	0.3	-	2.5	25.1	7.7	0.3	8.1
4/3	349	349	-	-	-	2.1	0.3	-	2.4	25.0	7.7	0.3	8.0
4/4	562	562	-	-	-	3.9	0.9	-	4.8	30.8	14.4	0.9	15.3
5/2+5/1	247	247	494	0	0	1.0	0.2	-	1.2	17.8	4.0	0.2	4.2
5/3	406	406	406	0	0	2.9	1.0	-	4.0	35.0	10.7	1.0	11.7
6/2+6/1	190	190	-	-	-	1.4	0.2	-	1.6	30.1	4.4	0.2	4.5
6/3	463	463	-	-	-	4.1	1.0	-	5.1	39.5	12.9	1.0	13.8
7/1	733	733	-	-	-	1.3	0.4	-	1.8	8.6	11.2	0.4	11.7
7/2	483	483	-	-	-	1.1	0.2	-	1.3	9.6	9.1	0.2	9.3
8/1	540	540	-	-	-	2.1	0.8	-	2.9	19.5	12.9	0.8	13.6
8/2	586	586	-	-	-	4.1	1.0	-	5.1	31.2	16.7	1.0	17.7
8/3	469	469	-	-	-	1.5	0.6	-	2.1	16.2	8.0	0.6	8.5
9/1	855	855	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
9/2	894	894	-	-	-	0.0	0.4	-	0.4	1.8	0.0	0.4	0.4
10/1	364	364	-	-	-	2.7	0.4	-	3.0	29.8	8.8	0.4	9.2
10/2	395	395	-	-	-	2.8	0.4	-	3.3	29.7	10.3	0.4	10.7

Full Input Data And Results

10/3	157	157	-	-	-	0.2	0.1	-	0.3	8.0	0.5	0.1	0.6
11/1	428	428	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
11/2	144	144	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
12/1	483	483	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/2	513	513	-	-	-	0.0	0.2	-	0.2	1.3	3.2	0.2	3.4
12/3	506	506	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/4	562	562	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
13/1	534	534	-	-	-	0.7	0.3	-	0.9	6.2	6.6	0.3	6.8
13/2	116	116	-	-	-	0.1	0.0	-	0.1	4.2	1.0	0.0	1.0
14/1	501	501	-	-	-	2.2	0.5	-	2.6	18.9	7.2	0.5	7.7
14/2	598	598	-	-	-	2.8	0.7	-	3.5	20.8	8.5	0.7	9.2
14/3	486	486	-	-	-	2.0	0.4	-	2.5	18.4	8.9	0.4	9.3
14/4	482	482	-	-	-	2.0	0.4	-	2.5	18.3	9.2	0.4	9.6
15/1	3	3	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
16/1	685	685	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
16/2	598	598	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
16/3	489	489	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
16/4	945	945	-	-	-	0.0	0.5	-	0.5	1.9	0.0	0.5	0.5
17/1	685	685	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
17/2	598	598	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	489	489	-	-	-	3.9	0.6	-	4.5	33.1	10.2	0.6	10.8
18/2	596	596	-	-	-	4.2	1.0	-	5.2	31.4	13.4	1.0	14.5
18/3	350	350	-	-	-	0.8	0.3	-	1.1	11.7	7.6	0.3	7.9
19/1	733	733	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
19/2	483	483	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
20/1	534	534	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
20/2	116	116	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0

C1 - West Controller
C2 - East Controller

PRC for Signalled Lanes (%): 36.2
PRC for Signalled Lanes (%): 33.9
PRC Over All Lanes (%): 33.9

Total Delay for Signalled Lanes (pcuHr): 38.78
Total Delay for Signalled Lanes (pcuHr): 41.77
Total Delay Over All Lanes(pcuHr): 89.70

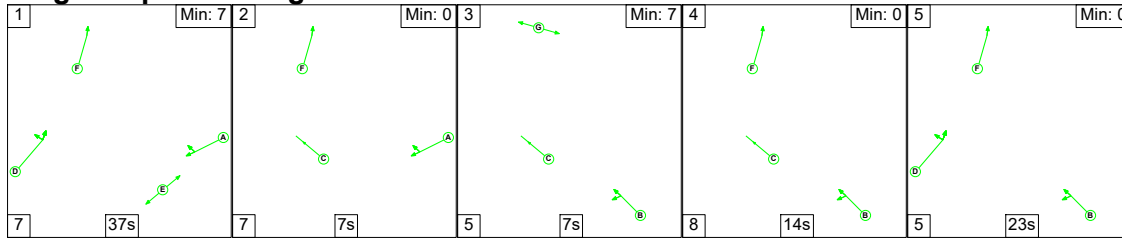
Cycle Time (s): 120
Cycle Time (s): 120

Full Input Data And Results

Scenario 5: '2025 Forecast Baseline + DEP or SEP in Isolation - AM' (FG5: '2025 Forecast Baseline + DEP or SEP Flows in Isolation ', Plan 1: 'Network Control Plan 1')

C1 - West Controller

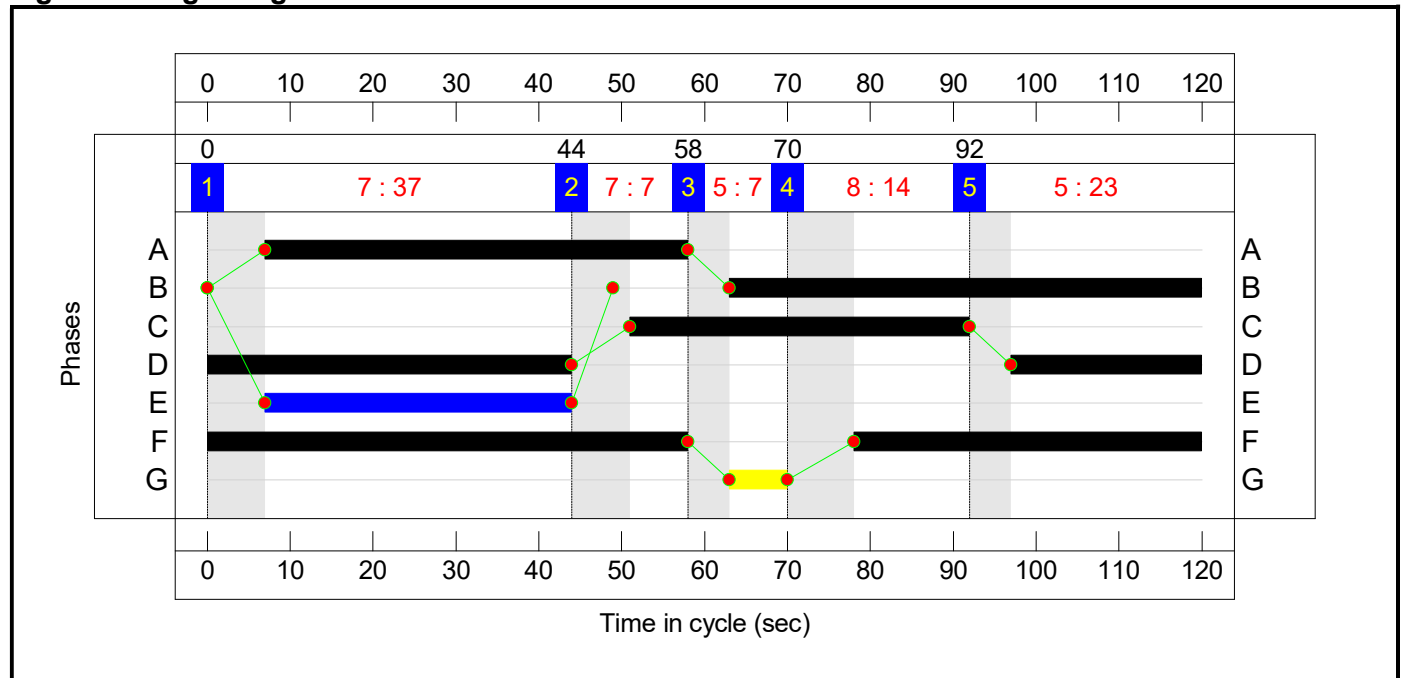
Stage Sequence Diagram



Stage Timings

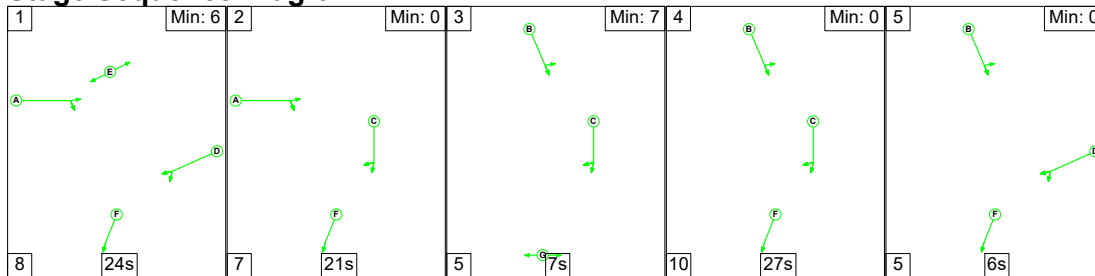
Stage	1	2	3	4	5
Duration	37	7	7	14	23
Change Point	0	44	58	70	92

Signal Timings Diagram



C2 - East Controller

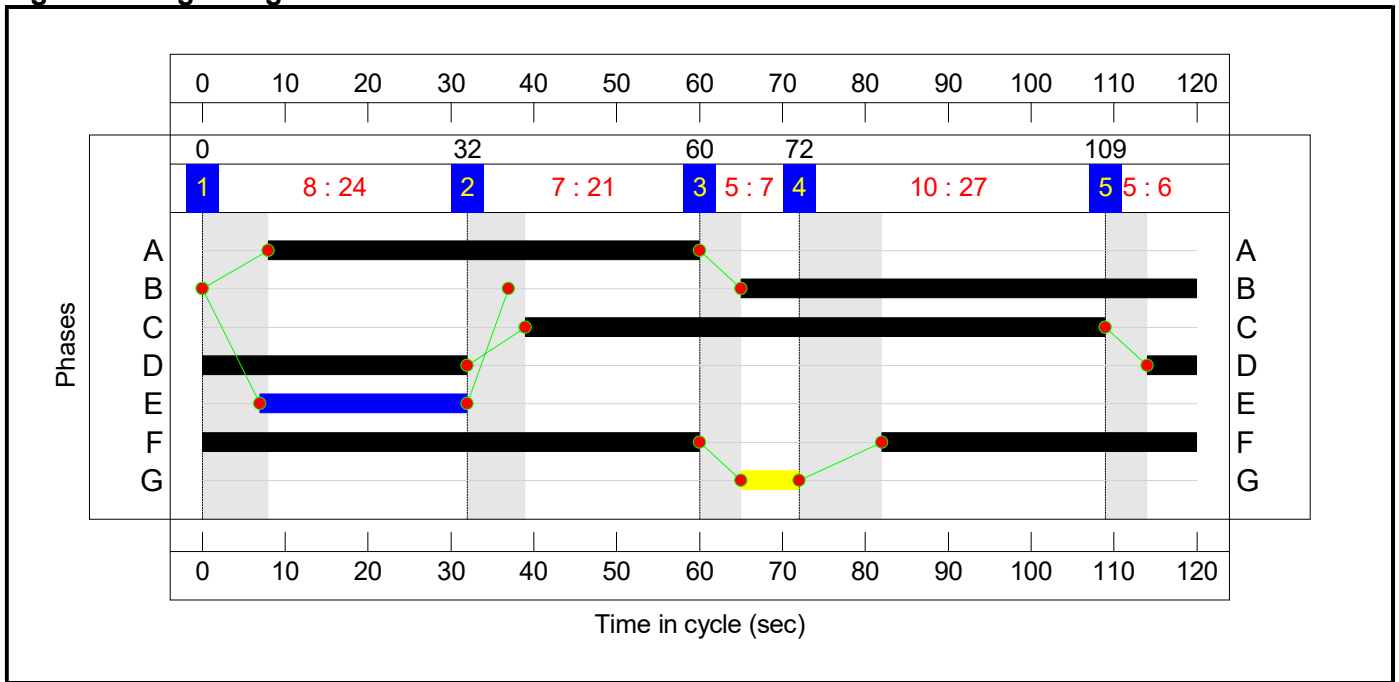
Stage Sequence Diagram



Stage Timings

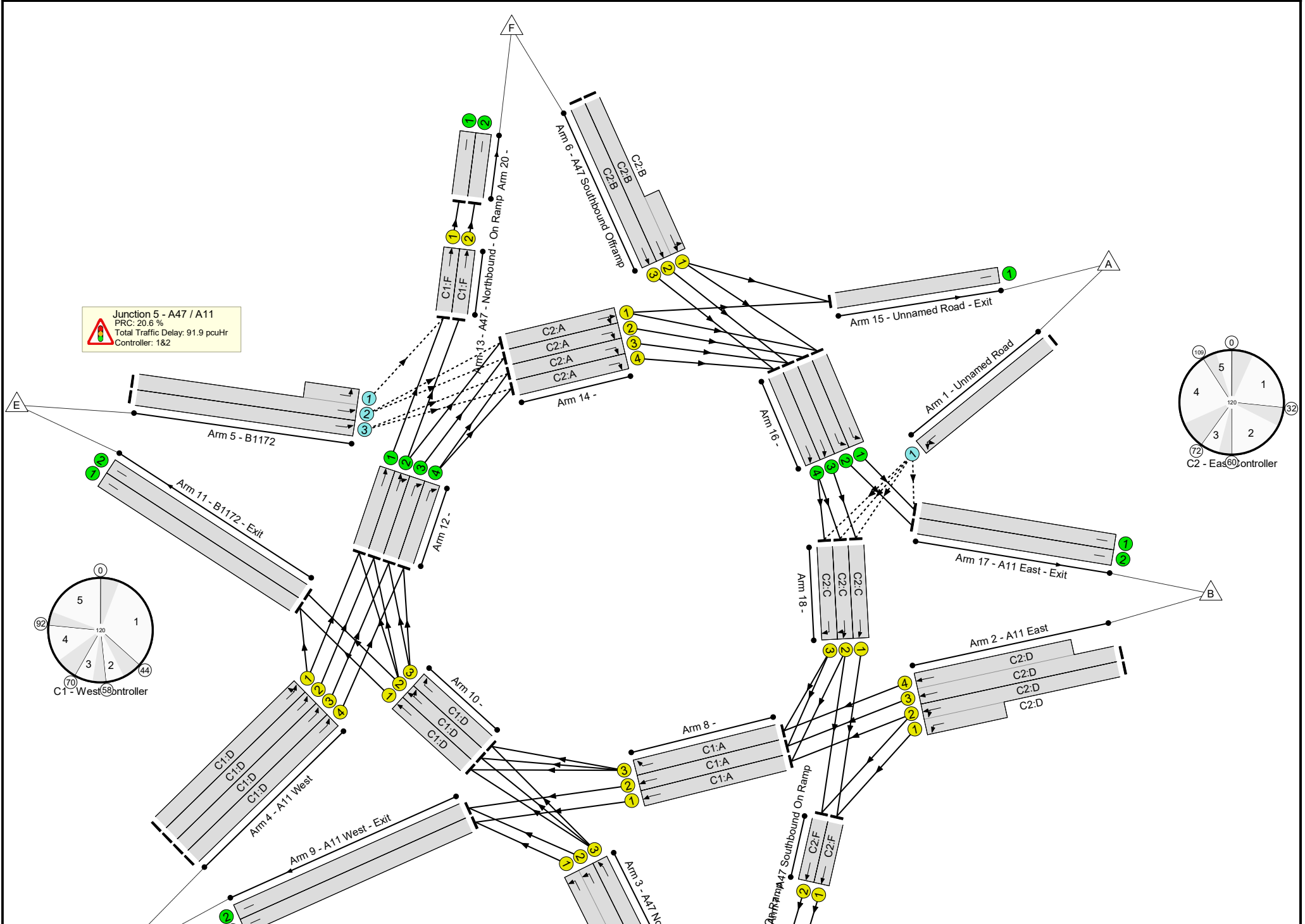
Stage	1	2	3	4	5
Duration	24	21	7	27	6
Change Point	0	32	60	72	109

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Junction 5 - A47 / A11 Grade Separated Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	74.6%
Junction 5 - A47 / A11	-	-	N/A	-	-		-	-	-	-	-	-	74.6%
1/1	Unnamed Road Left Left2	O	N/A	N/A	-		-	-	-	2	1900	748	0.3%
2/2+2/1	A11 East Left Ahead	U	N/A	N/A	C2:D		1	38	-	447	1900:1900	563+121	65.4 : 65.4%
2/3+2/4	A11 East Ahead	U	N/A	N/A	C2:D		1	38	-	528	1900:1900	585+389	54.2 : 54.2%
3/2+3/1	A47 Northbound Off Ramp Left	U	N/A	N/A	C1:B		1	57	-	919	1900:1900	610+622	74.6 : 74.6%
3/3	A47 Northbound Off Ramp Ahead	U	N/A	N/A	C1:B		1	57	-	582	1900	918	63.4%
4/1	A11 West Left Ahead	U	N/A	N/A	C1:D		1	67	-	540	1900	1077	50.2%
4/2	A11 West Ahead	U	N/A	N/A	C1:D		1	67	-	295	1900	1077	27.4%
4/3	A11 West Ahead	U	N/A	N/A	C1:D		1	67	-	299	1900	1077	27.8%
4/4	A11 West Ahead	U	N/A	N/A	C1:D		1	67	-	550	1900	1077	51.1%
5/2+5/1	B1172 Left Ahead	O	N/A	N/A	-		-	-	-	211	1900:1900	508+71	36.4 : 36.4%
5/3	B1172 Ahead	O	N/A	N/A	-		-	-	-	339	1900	464	73.1%
6/2+6/1	A47 Southbound Offramp Left Ahead	U	N/A	N/A	C2:B		1	55	-	139	1900:1900	0+887	0.0 : 15.7%
6/3	A47 Southbound Offramp Ahead	U	N/A	N/A	C2:B		1	55	-	655	1900	887	73.9%

Full Input Data And Results

7/1	A47 Southbound On Ramp Ahead	U	N/A	N/A	C2:F		1	98	-	536	1900	1568	34.2%
7/2	A47 Southbound On Ramp Ahead	U	N/A	N/A	C2:F		1	98	-	437	1900	1568	27.9%
8/1	Ahead	U	N/A	N/A	C1:A		1	51	-	564	1900	823	68.5%
8/2	Ahead	U	N/A	N/A	C1:A		1	51	-	607	1900	823	73.7%
8/3	Right	U	N/A	N/A	C1:A		1	51	-	375	1900	823	45.5%
9/1	A11 West - Exit	U	N/A	N/A	-		-	-	-	1028	1900	1900	54.1%
9/2	A11 West - Exit	U	N/A	N/A	-		-	-	-	1062	1900	1900	55.9%
10/1	Ahead	U	N/A	N/A	C1:D		1	67	-	346	1900	1077	32.1%
10/2	Ahead Right	U	N/A	N/A	C1:D		1	67	-	423	1900	1077	39.3%
10/3	Right	U	N/A	N/A	C1:D		1	67	-	188	1900	1077	17.5%
11/1	B1172 - Exit	U	N/A	N/A	-		-	-	-	424	1900	1900	22.3%
11/2	B1172 - Exit	U	N/A	N/A	-		-	-	-	126	1900	1900	6.6%
12/1	Ahead	U	N/A	N/A	-		-	-	-	528	1900	1900	27.8%
12/2	Ahead Right	U	N/A	N/A	-		-	-	-	526	1900	1900	27.7%
12/3	Right	U	N/A	N/A	-		-	-	-	487	1900	1900	25.6%
12/4	Right	U	N/A	N/A	-		-	-	-	550	1900	1900	28.9%
13/1	A47 - Northbound - On Ramp Ahead	U	N/A	N/A	C1:F		1	100	-	554	1900	1599	34.6%
13/2	A47 - Northbound - On Ramp Ahead	U	N/A	N/A	C1:F		1	100	-	95	1900	1599	5.9%
14/1	Ahead Right	U	N/A	N/A	C2:A		1	52	-	527	1900	839	62.8%
14/2	Right	U	N/A	N/A	C2:A		1	52	-	576	1900	839	68.6%
14/3	Right	U	N/A	N/A	C2:A		1	52	-	457	1900	839	54.5%
14/4	Right	U	N/A	N/A	C2:A		1	52	-	432	1900	839	51.5%
15/1	Unnamed Road - Exit	U	N/A	N/A	-		-	-	-	9	1900	1900	0.5%
16/1	Left	U	N/A	N/A	-		-	-	-	657	1900	1900	34.6%

Full Input Data And Results

16/2	Left	U	N/A	N/A	-		-	-	-	576	1900	1900	30.3%
16/3	Ahead	U	N/A	N/A	-		-	-	-	457	1900	1900	24.1%
16/4	Ahead	U	N/A	N/A	-		-	-	-	1087	1900	1900	57.2%
17/1	A11 East - Exit	U	N/A	N/A	-		-	-	-	659	1900	1900	34.7%
17/2	A11 East - Exit	U	N/A	N/A	-		-	-	-	576	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	C2:C		1	70	-	457	1900	1124	40.7%
18/2	Ahead Right	U	N/A	N/A	C2:C		1	70	-	633	1900	1124	56.3%
18/3	Right	U	N/A	N/A	C2:C		1	70	-	454	1900	1124	40.4%
19/1	A47 - Southbound On Ramp	U	N/A	N/A	-		-	-	-	536	1900	1900	28.2%
19/2	A47 - Southbound On Ramp	U	N/A	N/A	-		-	-	-	437	1900	1900	23.0%
20/1		U	N/A	N/A	-		-	-	-	554	1900	1900	29.2%
20/2		U	N/A	N/A	-		-	-	-	95	1900	1900	5.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Junction 5 - A47 / A11 Grade Separated Roundabout	-	-	763	0	0	70.6	21.3	0.0	91.9	-	-	-	-
Junction 5 - A47 / A11	-	-	763	0	0	70.6	21.3	0.0	91.9	-	-	-	-
1/1	2	2	2	0	0	0.0	0.0	-	0.0	3.3	0.0	0.0	0.0
2/2+2/1	447	447	-	-	-	4.1	0.9	-	5.1	40.8	10.7	0.9	11.7
2/3+2/4	528	528	-	-	-	4.7	0.6	-	5.3	36.0	8.5	0.6	9.1
3/2+3/1	919	919	-	-	-	5.4	1.5	-	6.9	26.8	10.7	1.5	12.1
3/3	582	582	-	-	-	3.7	0.9	-	4.6	28.4	14.4	0.9	15.2
4/1	540	540	-	-	-	2.4	0.5	-	2.9	19.1	10.8	0.5	11.3
4/2	295	295	-	-	-	1.1	0.2	-	1.3	15.6	5.0	0.2	5.2
4/3	299	299	-	-	-	1.1	0.2	-	1.3	15.7	5.1	0.2	5.3
4/4	550	550	-	-	-	2.4	0.5	-	2.9	19.3	11.2	0.5	11.7
5/2+5/1	211	211	422	0	0	1.3	0.3	-	1.6	27.5	4.4	0.3	4.7
5/3	339	339	339	0	0	3.2	1.3	-	4.5	47.9	9.9	1.3	11.2
6/2+6/1	139	139	-	-	-	0.7	0.1	-	0.8	20.8	2.7	0.1	2.8
6/3	655	655	-	-	-	4.7	1.4	-	6.1	33.7	17.6	1.4	19.0
7/1	536	536	-	-	-	0.3	0.3	-	0.6	4.0	4.5	0.3	4.8
7/2	437	437	-	-	-	0.2	0.2	-	0.4	3.6	3.4	0.2	3.5
8/1	564	564	-	-	-	3.7	1.1	-	4.7	30.3	10.1	1.1	11.2
8/2	607	607	-	-	-	4.3	1.4	-	5.7	33.9	12.8	1.4	14.2
8/3	375	375	-	-	-	2.3	0.4	-	2.7	26.3	6.3	0.4	6.7
9/1	1028	1028	-	-	-	0.0	0.6	-	0.6	2.1	0.0	0.6	0.6
9/2	1062	1062	-	-	-	0.0	0.6	-	0.6	2.1	0.0	0.6	0.6
10/1	346	346	-	-	-	1.6	0.2	-	1.9	19.5	6.1	0.2	6.3
10/2	423	423	-	-	-	1.7	0.3	-	2.1	17.5	8.6	0.3	8.9

Full Input Data And Results

10/3	188	188	-	-	-	0.0	0.1	-	0.2	3.0	0.4	0.1	0.5
11/1	424	424	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
11/2	126	126	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
12/1	528	528	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/2	526	526	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/3	487	487	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/4	550	550	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
13/1	554	554	-	-	-	0.9	0.3	-	1.1	7.3	8.6	0.3	8.8
13/2	95	95	-	-	-	0.1	0.0	-	0.1	5.0	1.1	0.0	1.1
14/1	527	527	-	-	-	4.4	0.8	-	5.3	36.1	12.2	0.8	13.1
14/2	576	576	-	-	-	5.0	1.1	-	6.1	38.0	13.2	1.1	14.3
14/3	457	457	-	-	-	3.2	0.6	-	3.8	30.2	10.7	0.6	11.3
14/4	432	432	-	-	-	2.4	0.5	-	3.0	24.7	10.1	0.5	10.7
15/1	9	9	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
16/1	657	657	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
16/2	576	576	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
16/3	457	457	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
16/4	1087	1087	-	-	-	0.0	0.7	-	0.7	2.2	0.0	0.7	0.7
17/1	659	659	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
17/2	576	576	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	457	457	-	-	-	1.6	0.3	-	1.9	15.1	5.0	0.3	5.4
18/2	633	633	-	-	-	2.2	0.6	-	2.8	16.0	10.1	0.6	10.8
18/3	454	454	-	-	-	1.6	0.3	-	1.9	15.0	12.2	0.3	12.5
19/1	536	536	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
19/2	437	437	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
20/1	554	554	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
20/2	95	95	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0

C1 - West Controller
C2 - East Controller

PRC for Signalled Lanes (%): 20.6
PRC for Signalled Lanes (%): 21.8
PRC Over All Lanes (%): 20.6

Total Delay for Signalled Lanes (pcuHr): 38.38
Total Delay for Signalled Lanes (pcuHr): 43.11
Total Delay Over All Lanes(pcuHr): 91.92

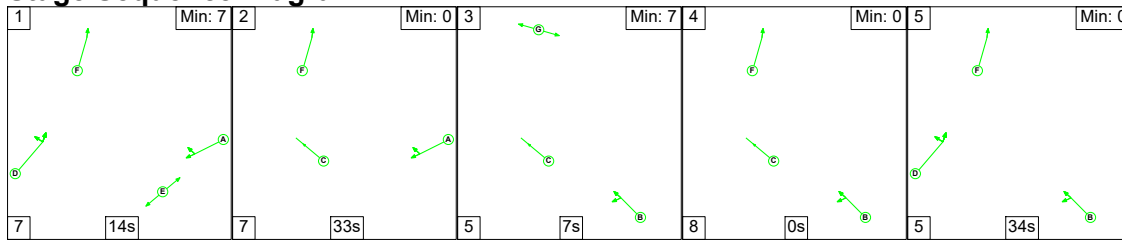
Cycle Time (s): 120
Cycle Time (s): 120

Full Input Data And Results

Scenario 6: '2025 Forecast Baseline + DEP or SEP in Isolation - PM' (FG6: '2025 Forecast Baseline + DEP or SEP Flows in Isolation ', Plan 1: 'Network Control Plan 1')

C1 - West Controller

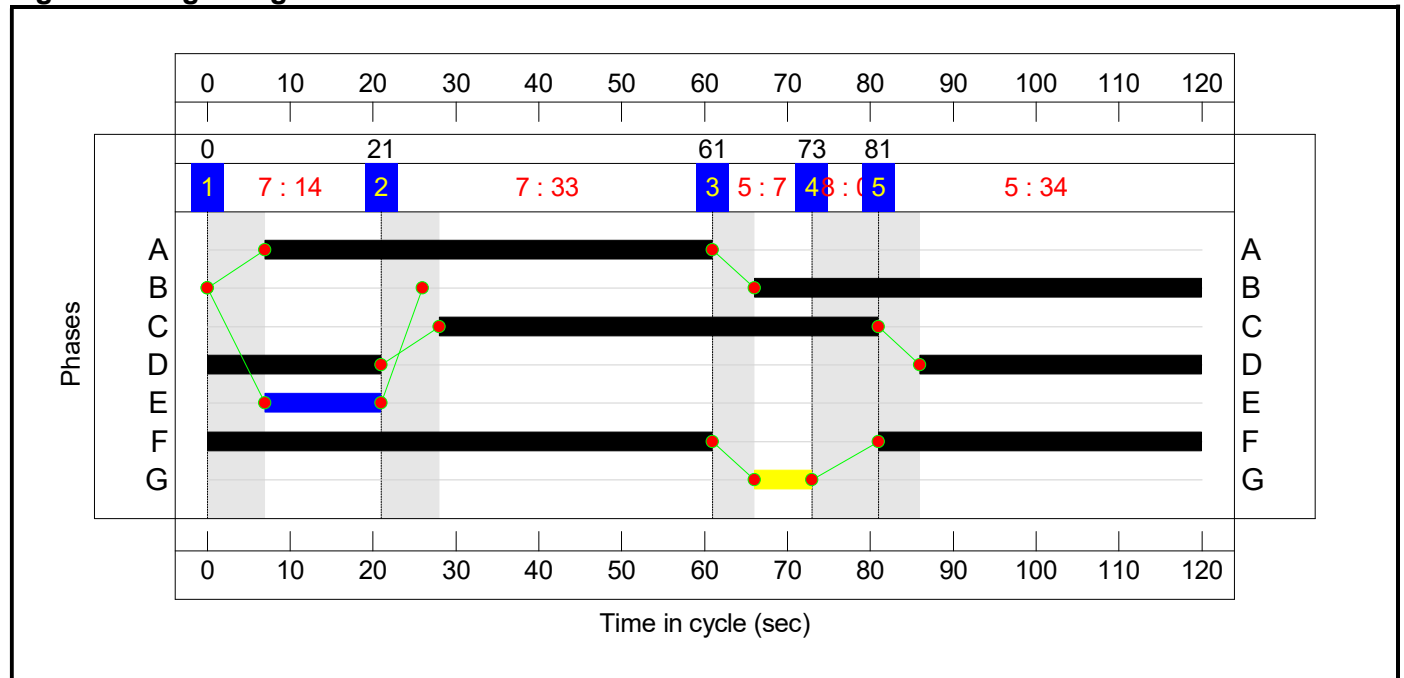
Stage Sequence Diagram



Stage Timings

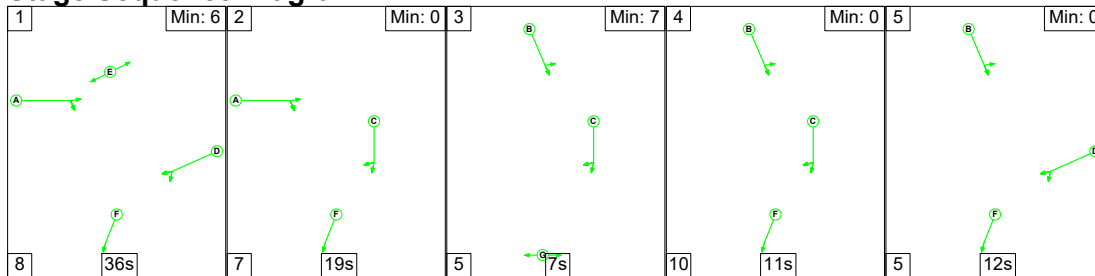
Stage	1	2	3	4	5
Duration	14	33	7	0	34
Change Point	0	21	61	73	81

Signal Timings Diagram



C2 - East Controller

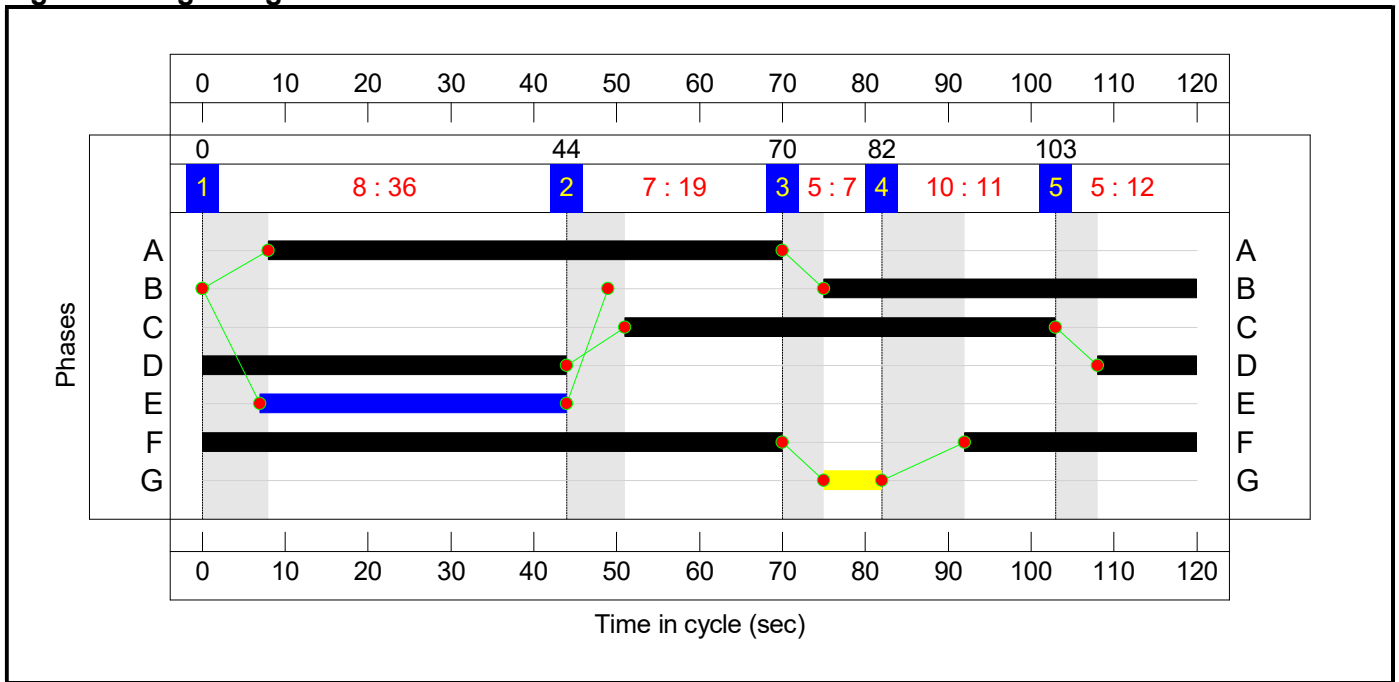
Stage Sequence Diagram



Stage Timings

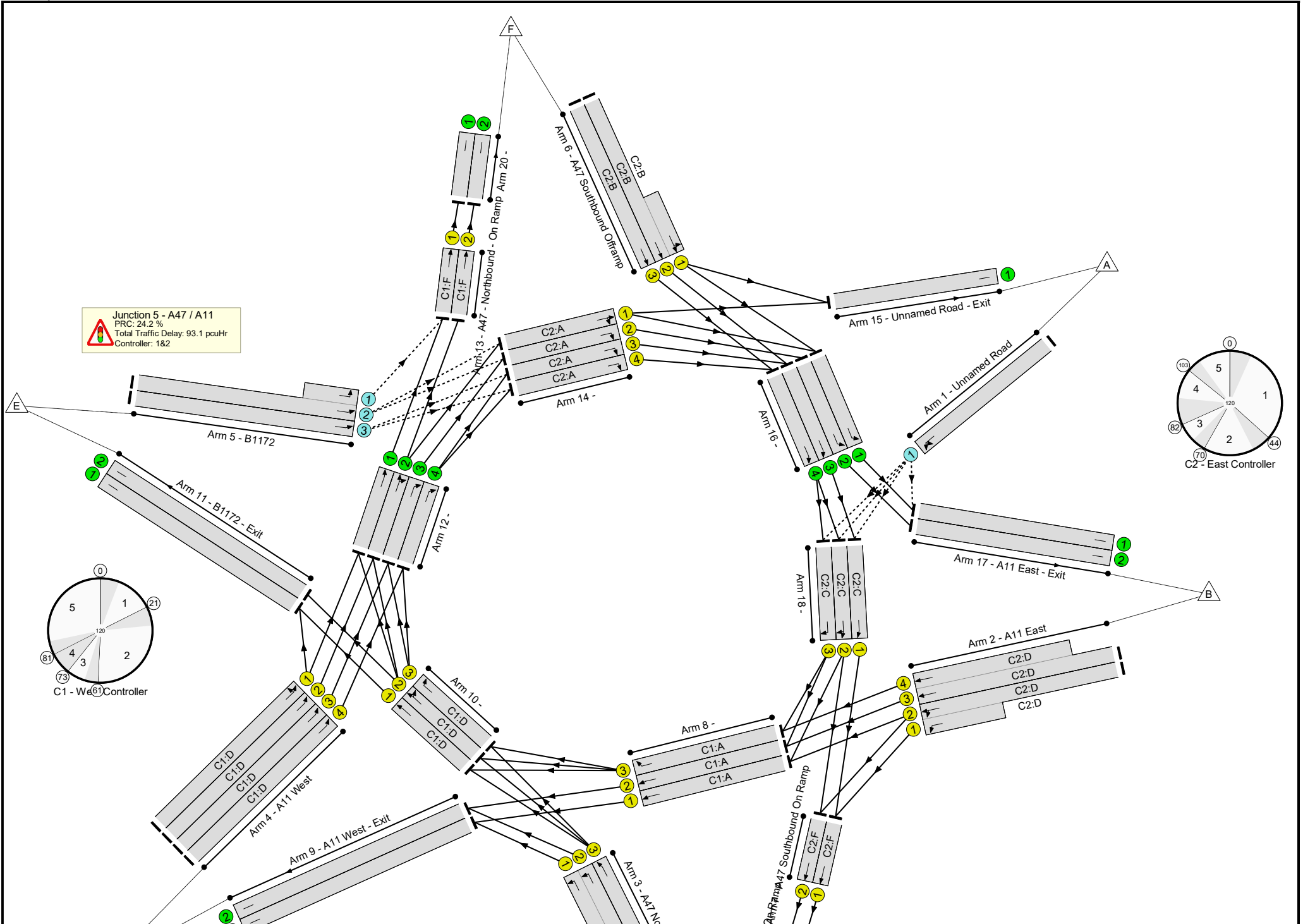
Stage	1	2	3	4	5
Duration	36	19	7	11	12
Change Point	0	44	70	82	103

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Junction 5 - A47 / A11 Grade Separated Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	72.5%
Junction 5 - A47 / A11	-	-	N/A	-	-		-	-	-	-	-	-	72.5%
1/1	Unnamed Road Left Left2	O	N/A	N/A	-		-	-	-	1	1900	57	1.7%
2/2+2/1	A11 East Left Ahead	U	N/A	N/A	C2:D		1	56	-	737	1900:1900	702+326	71.7 : 71.7%
2/3+2/4	A11 East Ahead	U	N/A	N/A	C2:D		1	56	-	639	1900:1900	528+750	50.0 : 50.0%
3/2+3/1	A47 Northbound Off Ramp Left	U	N/A	N/A	C1:B		1	54	-	629	1900:1900	596+591	53.0 : 53.0%
3/3	A47 Northbound Off Ramp Ahead	U	N/A	N/A	C1:B		1	54	-	448	1900	871	51.4%
4/1	A11 West Left Ahead	U	N/A	N/A	C1:D		1	55	-	521	1900	887	58.8%
4/2	A11 West Ahead	U	N/A	N/A	C1:D		1	55	-	354	1900	887	39.9%
4/3	A11 West Ahead	U	N/A	N/A	C1:D		1	55	-	349	1900	887	39.4%
4/4	A11 West Ahead	U	N/A	N/A	C1:D		1	55	-	589	1900	887	66.4%
5/2+5/1	B1172 Left Ahead	O	N/A	N/A	-		-	-	-	261	1900:1900	629+204	31.3 : 31.3%
5/3	B1172 Ahead	O	N/A	N/A	-		-	-	-	420	1900	585	71.8%
6/2+6/1	A47 Southbound Offramp Left Ahead	U	N/A	N/A	C2:B		1	45	-	192	1900:1900	12+727	26.0 : 26.0%
6/3	A47 Southbound Offramp Ahead	U	N/A	N/A	C2:B		1	45	-	527	1900	728	72.4%

Full Input Data And Results

7/1	A47 Southbound On Ramp Ahead	U	N/A	N/A	C2:F		1	98	-	744	1900	1568	47.5%
7/2	A47 Southbound On Ramp Ahead	U	N/A	N/A	C2:F		1	98	-	513	1900	1568	32.7%
8/1	Ahead	U	N/A	N/A	C1:A		1	54	-	598	1900	871	68.7%
8/2	Ahead	U	N/A	N/A	C1:A		1	54	-	586	1900	871	67.3%
8/3	Right	U	N/A	N/A	C1:A		1	54	-	475	1900	871	54.5%
9/1	A11 West - Exit	U	N/A	N/A	-		-	-	-	911	1900	1900	47.9%
9/2	A11 West - Exit	U	N/A	N/A	-		-	-	-	902	1900	1900	47.5%
10/1	Ahead	U	N/A	N/A	C1:D		1	55	-	377	1900	887	42.5%
10/2	Ahead Right	U	N/A	N/A	C1:D		1	55	-	412	1900	887	46.5%
10/3	Right	U	N/A	N/A	C1:D		1	55	-	134	1900	887	15.1%
11/1	B1172 - Exit	U	N/A	N/A	-		-	-	-	441	1900	1900	23.2%
11/2	B1172 - Exit	U	N/A	N/A	-		-	-	-	138	1900	1900	7.3%
12/1	Ahead	U	N/A	N/A	-		-	-	-	547	1900	1900	28.8%
12/2	Ahead Right	U	N/A	N/A	-		-	-	-	538	1900	1900	28.3%
12/3	Right	U	N/A	N/A	-		-	-	-	483	1900	1900	25.4%
12/4	Right	U	N/A	N/A	-		-	-	-	589	1900	1900	31.0%
13/1	A47 - Northbound - On Ramp Ahead	U	N/A	N/A	C1:F		1	100	-	611	1900	1599	38.2%
13/2	A47 - Northbound - On Ramp Ahead	U	N/A	N/A	C1:F		1	100	-	116	1900	1599	7.3%
14/1	Ahead Right	U	N/A	N/A	C2:A		1	62	-	536	1900	997	53.7%
14/2	Right	U	N/A	N/A	C2:A		1	62	-	566	1900	997	56.7%
14/3	Right	U	N/A	N/A	C2:A		1	62	-	507	1900	997	50.8%
14/4	Right	U	N/A	N/A	C2:A		1	62	-	502	1900	997	50.3%
15/1	Unnamed Road - Exit	U	N/A	N/A	-		-	-	-	3	1900	1900	0.2%
16/1	Left	U	N/A	N/A	-		-	-	-	722	1900	1900	38.0%

Full Input Data And Results

16/2	Left	U	N/A	N/A	-		-	-	-	566	1900	1900	29.8%
16/3	Ahead	U	N/A	N/A	-		-	-	-	510	1900	1900	26.8%
16/4	Ahead	U	N/A	N/A	-		-	-	-	1029	1900	1900	54.2%
17/1	A11 East - Exit	U	N/A	N/A	-		-	-	-	722	1900	1900	38.0%
17/2	A11 East - Exit	U	N/A	N/A	-		-	-	-	566	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	C2:C		1	52	-	510	1900	839	60.8%
18/2	Ahead Right	U	N/A	N/A	C2:C		1	52	-	608	1900	839	72.5%
18/3	Right	U	N/A	N/A	C2:C		1	52	-	422	1900	839	50.3%
19/1	A47 - Southbound On Ramp	U	N/A	N/A	-		-	-	-	744	1900	1900	39.2%
19/2	A47 - Southbound On Ramp	U	N/A	N/A	-		-	-	-	513	1900	1900	27.0%
20/1		U	N/A	N/A	-		-	-	-	611	1900	1900	32.2%
20/2		U	N/A	N/A	-		-	-	-	116	1900	1900	6.1%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Junction 5 - A47 / A11 Grade Separated Roundabout	-	-	943	0	0	71.2	21.9	0.0	93.1	-	-	-	-
Junction 5 - A47 / A11	-	-	943	0	0	71.2	21.9	0.0	93.1	-	-	-	-
1/1	1	1	1	0	0	0.0	0.0	-	0.0	77.6	0.0	0.0	0.0
2/2+2/1	737	737	-	-	-	4.5	1.3	-	5.8	28.3	14.6	1.3	15.8
2/3+2/4	639	639	-	-	-	3.6	0.5	-	4.1	22.8	8.1	0.5	8.6
3/2+3/1	629	629	-	-	-	3.7	0.6	-	4.2	24.3	6.8	0.6	7.3
3/3	448	448	-	-	-	2.9	0.5	-	3.4	27.3	10.6	0.5	11.1
4/1	521	521	-	-	-	3.4	0.7	-	4.1	28.4	12.7	0.7	13.4
4/2	354	354	-	-	-	2.1	0.3	-	2.4	24.4	7.7	0.3	8.0
4/3	349	349	-	-	-	2.0	0.3	-	2.4	24.3	7.6	0.3	7.9
4/4	589	589	-	-	-	4.0	1.0	-	5.0	30.7	15.1	1.0	16.0
5/2+5/1	261	261	522	0	0	1.1	0.2	-	1.3	18.3	4.1	0.2	4.3
5/3	420	420	420	0	0	3.3	1.3	-	4.5	38.6	11.7	1.3	12.9
6/2+6/1	192	192	-	-	-	1.3	0.2	-	1.5	28.6	4.3	0.2	4.5
6/3	527	527	-	-	-	4.6	1.3	-	5.9	40.4	14.9	1.3	16.2
7/1	744	744	-	-	-	0.5	0.5	-	1.0	4.8	9.2	0.5	9.7
7/2	513	513	-	-	-	0.3	0.2	-	0.6	4.1	6.5	0.2	6.8
8/1	598	598	-	-	-	2.6	1.1	-	3.6	22.0	9.1	1.1	10.2
8/2	586	586	-	-	-	4.3	1.0	-	5.3	32.5	17.2	1.0	18.2
8/3	475	475	-	-	-	2.0	0.6	-	2.6	19.4	5.6	0.6	6.2
9/1	911	911	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
9/2	902	902	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
10/1	377	377	-	-	-	2.3	0.4	-	2.6	25.1	8.2	0.4	8.6
10/2	412	412	-	-	-	2.4	0.4	-	2.9	25.1	10.1	0.4	10.5

Full Input Data And Results

10/3	134	134	-	-	-	0.3	0.1	-	0.4	10.6	0.7	0.1	0.8
11/1	441	441	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
11/2	138	138	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
12/1	547	547	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/2	538	538	-	-	-	0.0	0.2	-	0.2	1.3	2.1	0.2	2.3
12/3	483	483	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/4	589	589	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
13/1	611	611	-	-	-	0.7	0.3	-	1.0	5.9	6.6	0.3	6.9
13/2	116	116	-	-	-	0.1	0.0	-	0.1	3.5	0.8	0.0	0.8
14/1	536	536	-	-	-	2.3	0.6	-	2.9	19.5	7.4	0.6	8.0
14/2	566	566	-	-	-	2.5	0.7	-	3.1	19.8	7.3	0.7	7.9
14/3	507	507	-	-	-	2.2	0.5	-	2.7	19.2	9.2	0.5	9.7
14/4	502	502	-	-	-	2.2	0.5	-	2.7	19.3	9.4	0.5	9.9
15/1	3	3	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
16/1	722	722	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
16/2	566	566	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
16/3	510	510	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
16/4	1029	1029	-	-	-	0.0	0.6	-	0.6	2.1	0.0	0.6	0.6
17/1	722	722	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
17/2	566	566	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	510	510	-	-	-	3.8	0.8	-	4.5	31.9	8.6	0.8	9.4
18/2	608	608	-	-	-	4.4	1.3	-	5.7	33.6	13.2	1.3	14.5
18/3	422	422	-	-	-	2.0	0.5	-	2.5	21.4	12.2	0.5	12.7
19/1	744	744	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
19/2	513	513	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
20/1	611	611	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
20/2	116	116	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0

C1 - West Controller
C2 - East Controller

PRC for Signalled Lanes (%): 31.1
PRC for Signalled Lanes (%): 24.2
PRC Over All Lanes (%): 24.2

Total Delay for Signalled Lanes (pcuHr): 40.03
Total Delay for Signalled Lanes (pcuHr): 42.99
Total Delay Over All Lanes(pcuHr): 93.14

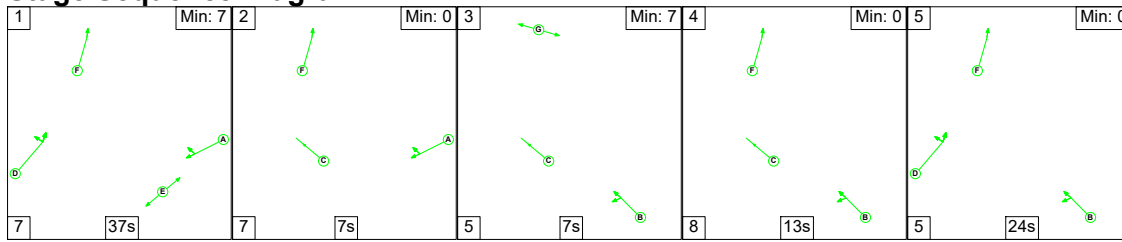
Cycle Time (s): 120
Cycle Time (s): 120

Full Input Data And Results

Scenario 7: '2025 Forecast Baseline + DEP and SEP - AM' (FG7: '2025 Forecast Baseline + DEP and SEP Flows ', Plan 1: 'Network Control Plan 1')

C1 - West Controller

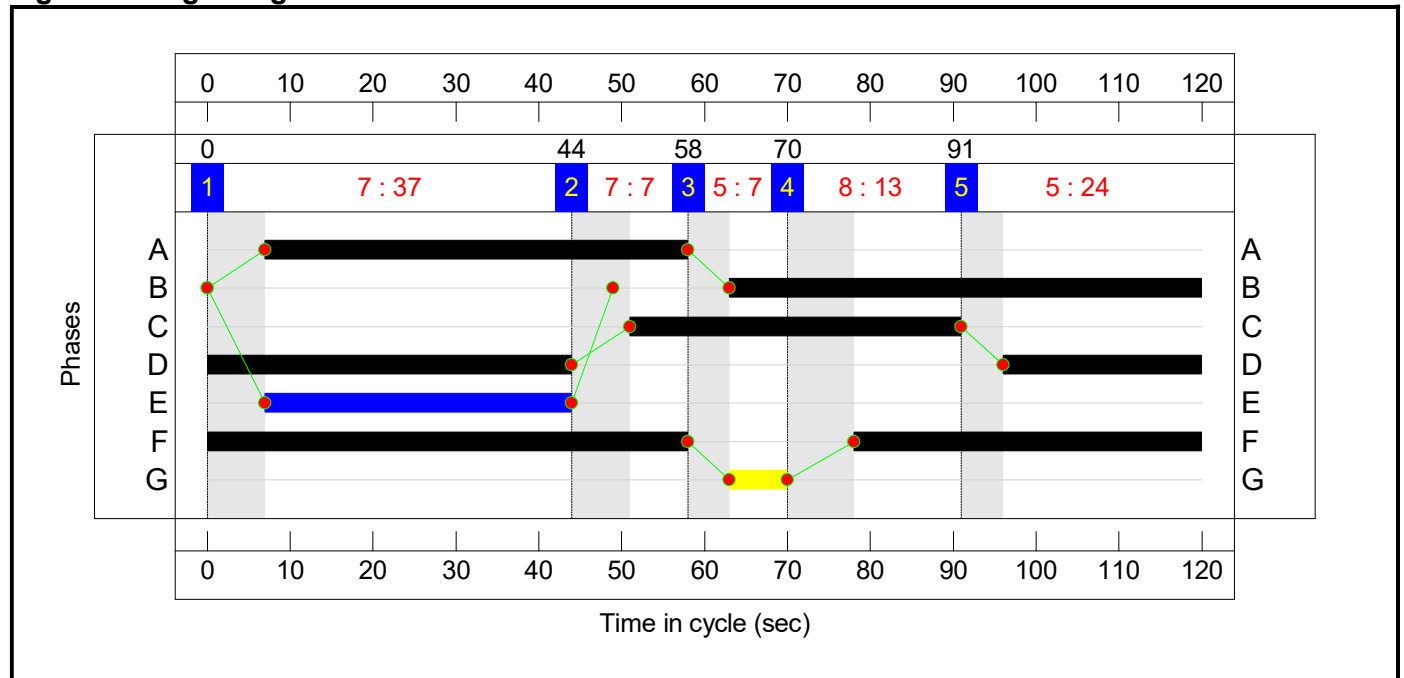
Stage Sequence Diagram



Stage Timings

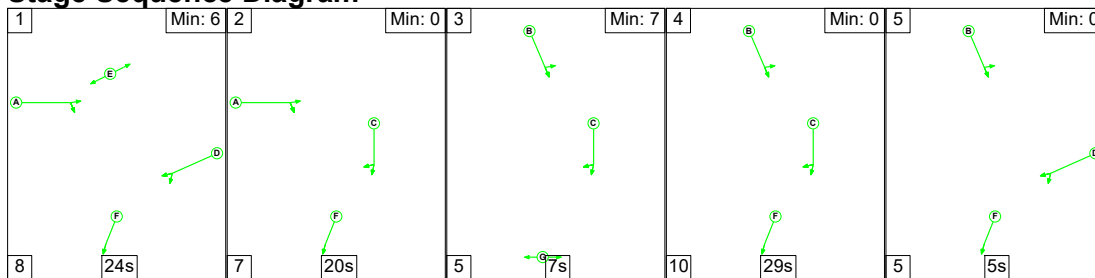
Stage	1	2	3	4	5
Duration	37	7	7	13	24
Change Point	0	44	58	70	91

Signal Timings Diagram



C2 - East Controller

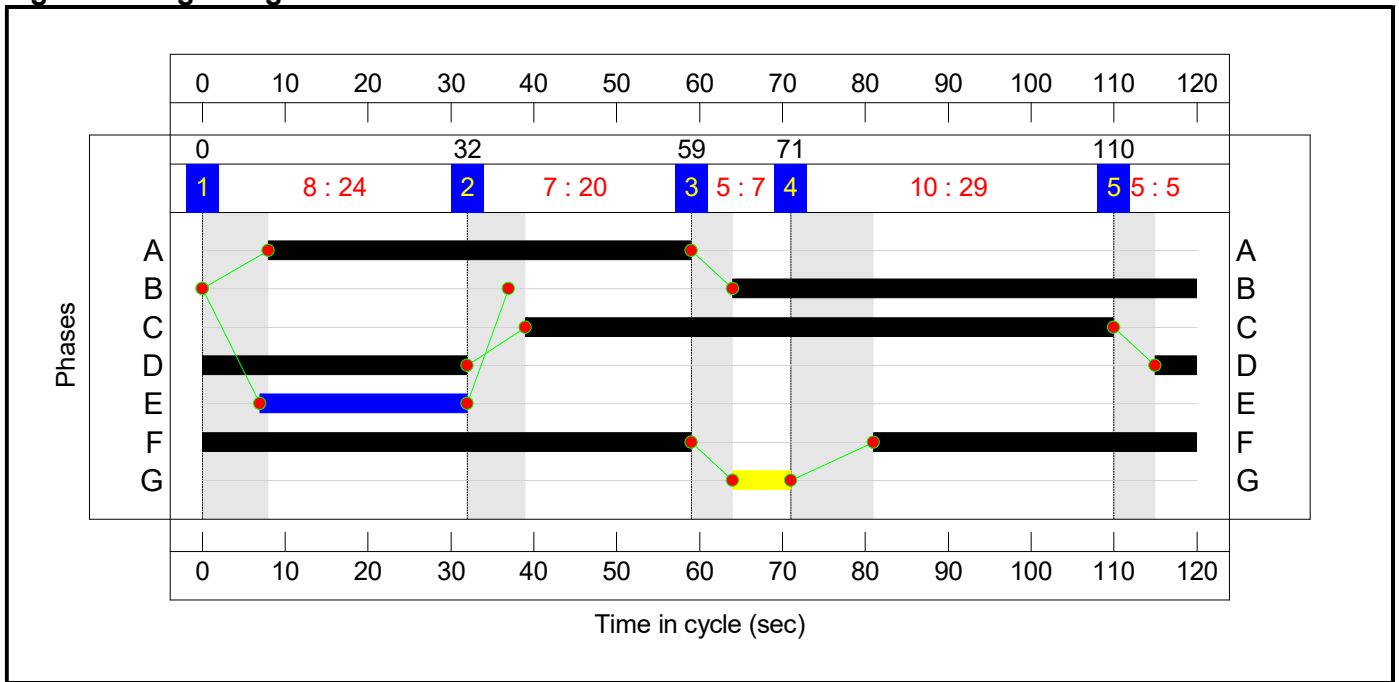
Stage Sequence Diagram



Stage Timings

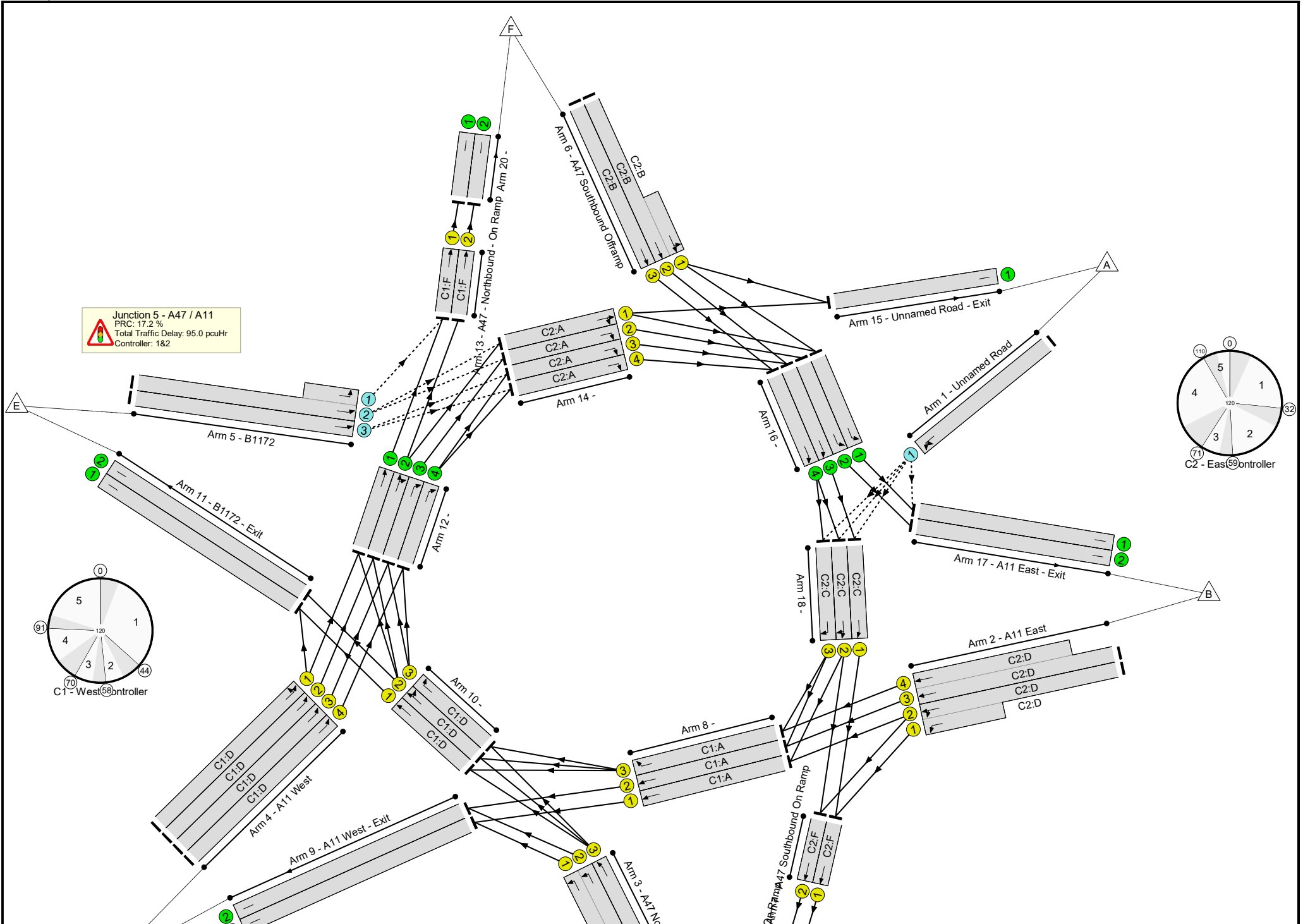
Stage	1	2	3	4	5
Duration	24	20	7	29	5
Change Point	0	32	59	71	110

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Junction 5 - A47 / A11 Grade Separated Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	76.8%
Junction 5 - A47 / A11	-	-	N/A	-	-		-	-	-	-	-	-	76.8%
1/1	Unnamed Road Left Left2	O	N/A	N/A	-		-	-	-	2	1900	740	0.3%
2/2+2/1	A11 East Left Ahead	U	N/A	N/A	C2:D		1	37	-	420	1900:1900	518+182	60.0 : 60.0%
2/3+2/4	A11 East Ahead	U	N/A	N/A	C2:D		1	37	-	556	1900:1900	577+356	59.6 : 59.6%
3/2+3/1	A47 Northbound Off Ramp Left	U	N/A	N/A	C1:B		1	57	-	947	1900:1900	612+621	76.8 : 76.8%
3/3	A47 Northbound Off Ramp Ahead	U	N/A	N/A	C1:B		1	57	-	594	1900	918	64.7%
4/1	A11 West Left Ahead	U	N/A	N/A	C1:D		1	68	-	554	1900	1092	50.7%
4/2	A11 West Ahead	U	N/A	N/A	C1:D		1	68	-	298	1900	1092	27.3%
4/3	A11 West Ahead	U	N/A	N/A	C1:D		1	68	-	296	1900	1092	27.1%
4/4	A11 West Ahead	U	N/A	N/A	C1:D		1	68	-	564	1900	1092	51.6%
5/2+5/1	B1172 Left Ahead	O	N/A	N/A	-		-	-	-	211	1900:1900	496+70	37.3 : 37.3%
5/3	B1172 Ahead	O	N/A	N/A	-		-	-	-	342	1900	451	75.9%
6/2+6/1	A47 Southbound Offramp Left Ahead	U	N/A	N/A	C2:B		1	56	-	139	1900:1900	0+903	0.0 : 15.4%
6/3	A47 Southbound Offramp Ahead	U	N/A	N/A	C2:B		1	56	-	691	1900	903	76.6%

Full Input Data And Results

7/1	A47 Southbound On Ramp Ahead	U	N/A	N/A	C2:F		1	98	-	582	1900	1568	37.1%
7/2	A47 Southbound On Ramp Ahead	U	N/A	N/A	C2:F		1	98	-	408	1900	1568	26.0%
8/1	Ahead	U	N/A	N/A	C1:A		1	51	-	579	1900	823	70.3%
8/2	Ahead	U	N/A	N/A	C1:A		1	51	-	623	1900	823	75.7%
8/3	Right	U	N/A	N/A	C1:A		1	51	-	381	1900	823	46.3%
9/1	A11 West - Exit	U	N/A	N/A	-		-	-	-	1056	1900	1900	55.6%
9/2	A11 West - Exit	U	N/A	N/A	-		-	-	-	1093	1900	1900	57.5%
10/1	Ahead	U	N/A	N/A	C1:D		1	68	-	331	1900	1092	30.3%
10/2	Ahead Right	U	N/A	N/A	C1:D		1	68	-	457	1900	1092	41.8%
10/3	Right	U	N/A	N/A	C1:D		1	68	-	187	1900	1092	17.1%
11/1	B1172 - Exit	U	N/A	N/A	-		-	-	-	409	1900	1900	21.5%
11/2	B1172 - Exit	U	N/A	N/A	-		-	-	-	158	1900	1900	8.3%
12/1	Ahead	U	N/A	N/A	-		-	-	-	552	1900	1900	29.1%
12/2	Ahead Right	U	N/A	N/A	-		-	-	-	521	1900	1900	27.4%
12/3	Right	U	N/A	N/A	-		-	-	-	483	1900	1900	25.4%
12/4	Right	U	N/A	N/A	-		-	-	-	564	1900	1900	29.7%
13/1	A47 - Northbound - On Ramp Ahead	U	N/A	N/A	C1:F		1	100	-	578	1900	1599	36.1%
13/2	A47 - Northbound - On Ramp Ahead	U	N/A	N/A	C1:F		1	100	-	86	1900	1599	5.4%
14/1	Ahead Right	U	N/A	N/A	C2:A		1	51	-	538	1900	823	65.3%
14/2	Right	U	N/A	N/A	C2:A		1	51	-	565	1900	823	68.6%
14/3	Right	U	N/A	N/A	C2:A		1	51	-	473	1900	823	57.4%
14/4	Right	U	N/A	N/A	C2:A		1	51	-	433	1900	823	52.6%
15/1	Unnamed Road - Exit	U	N/A	N/A	-		-	-	-	9	1900	1900	0.5%
16/1	Left	U	N/A	N/A	-		-	-	-	668	1900	1900	35.2%

Full Input Data And Results

16/2	Left	U	N/A	N/A	-		-	-	-	565	1900	1900	29.7%
16/3	Ahead	U	N/A	N/A	-		-	-	-	473	1900	1900	24.9%
16/4	Ahead	U	N/A	N/A	-		-	-	-	1124	1900	1900	59.2%
17/1	A11 East - Exit	U	N/A	N/A	-		-	-	-	670	1900	1900	35.3%
17/2	A11 East - Exit	U	N/A	N/A	-		-	-	-	565	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	C2:C		1	71	-	473	1900	1140	41.5%
18/2	Ahead Right	U	N/A	N/A	C2:C		1	71	-	676	1900	1140	59.3%
18/3	Right	U	N/A	N/A	C2:C		1	71	-	448	1900	1140	39.3%
19/1	A47 - Southbound On Ramp	U	N/A	N/A	-		-	-	-	582	1900	1900	30.6%
19/2	A47 - Southbound On Ramp	U	N/A	N/A	-		-	-	-	408	1900	1900	21.5%
20/1		U	N/A	N/A	-		-	-	-	578	1900	1900	30.4%
20/2		U	N/A	N/A	-		-	-	-	86	1900	1900	4.5%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Junction 5 - A47 / A11 Grade Separated Roundabout	-	-	766	0	0	72.3	22.7	0.0	95.0	-	-	-	-
Junction 5 - A47 / A11	-	-	766	0	0	72.3	22.7	0.0	95.0	-	-	-	-
1/1	2	2	2	0	0	0.0	0.0	-	0.0	3.4	0.0	0.0	0.0
2/2+2/1	420	420	-	-	-	3.8	0.7	-	4.5	39.0	8.6	0.7	9.4
2/3+2/4	556	556	-	-	-	5.1	0.7	-	5.9	38.0	9.6	0.7	10.3
3/2+3/1	947	947	-	-	-	5.6	1.6	-	7.3	27.6	12.0	1.6	13.6
3/3	594	594	-	-	-	3.8	0.9	-	4.8	28.8	14.8	0.9	15.8
4/1	554	554	-	-	-	2.4	0.5	-	2.9	18.6	10.9	0.5	11.4
4/2	298	298	-	-	-	1.1	0.2	-	1.3	15.1	5.0	0.2	5.2
4/3	296	296	-	-	-	1.1	0.2	-	1.2	15.1	4.9	0.2	5.1
4/4	564	564	-	-	-	2.4	0.5	-	2.9	18.8	11.3	0.5	11.8
5/2+5/1	211	211	422	0	0	1.4	0.3	-	1.7	28.2	4.5	0.3	4.8
5/3	342	342	342	0	0	3.3	1.5	-	4.8	51.0	10.1	1.5	11.6
6/2+6/1	139	139	-	-	-	0.7	0.1	-	0.8	20.2	2.6	0.1	2.7
6/3	691	691	-	-	-	5.0	1.6	-	6.6	34.4	19.0	1.6	20.6
7/1	582	582	-	-	-	0.3	0.3	-	0.6	3.8	4.4	0.3	4.7
7/2	408	408	-	-	-	0.2	0.2	-	0.4	3.2	2.9	0.2	3.1
8/1	579	579	-	-	-	4.1	1.2	-	5.3	32.8	11.8	1.2	12.9
8/2	623	623	-	-	-	4.3	1.5	-	5.9	33.8	11.8	1.5	13.3
8/3	381	381	-	-	-	2.4	0.4	-	2.8	26.9	6.5	0.4	6.9
9/1	1056	1056	-	-	-	0.0	0.6	-	0.6	2.1	0.0	0.6	0.6
9/2	1093	1093	-	-	-	0.0	0.7	-	0.7	2.2	0.0	0.7	0.7
10/1	331	331	-	-	-	1.5	0.2	-	1.7	18.6	5.6	0.2	5.8
10/2	457	457	-	-	-	1.8	0.4	-	2.2	17.1	9.2	0.4	9.5

Full Input Data And Results

10/3	187	187	-	-	-	0.0	0.1	-	0.1	2.9	0.3	0.1	0.4
11/1	409	409	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
11/2	158	158	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
12/1	552	552	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/2	521	521	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/3	483	483	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/4	564	564	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
13/1	578	578	-	-	-	0.9	0.3	-	1.2	7.3	8.8	0.3	9.0
13/2	86	86	-	-	-	0.1	0.0	-	0.1	4.9	1.0	0.0	1.0
14/1	538	538	-	-	-	4.7	0.9	-	5.6	37.4	12.7	0.9	13.7
14/2	565	565	-	-	-	5.1	1.1	-	6.1	39.1	13.1	1.1	14.2
14/3	473	473	-	-	-	3.3	0.7	-	4.0	30.3	11.3	0.7	11.9
14/4	433	433	-	-	-	2.6	0.6	-	3.2	26.6	10.2	0.6	10.7
15/1	9	9	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
16/1	668	668	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
16/2	565	565	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
16/3	473	473	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
16/4	1124	1124	-	-	-	0.0	0.7	-	0.7	2.3	0.0	0.7	0.7
17/1	670	670	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
17/2	565	565	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	473	473	-	-	-	1.5	0.4	-	1.9	14.1	4.9	0.4	5.2
18/2	676	676	-	-	-	2.3	0.7	-	3.0	16.2	11.2	0.7	12.0
18/3	448	448	-	-	-	1.5	0.3	-	1.8	14.8	11.8	0.3	12.2
19/1	582	582	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
19/2	408	408	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
20/1	578	578	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
20/2	86	86	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0

C1 - West Controller
C2 - East Controller

PRC for Signalled Lanes (%): 17.2
PRC for Signalled Lanes (%): 17.5
PRC Over All Lanes (%): 17.2

Total Delay for Signalled Lanes (pcuHr): 39.62
Total Delay for Signalled Lanes (pcuHr): 44.42
Total Delay Over All Lanes(pcuHr): 95.05

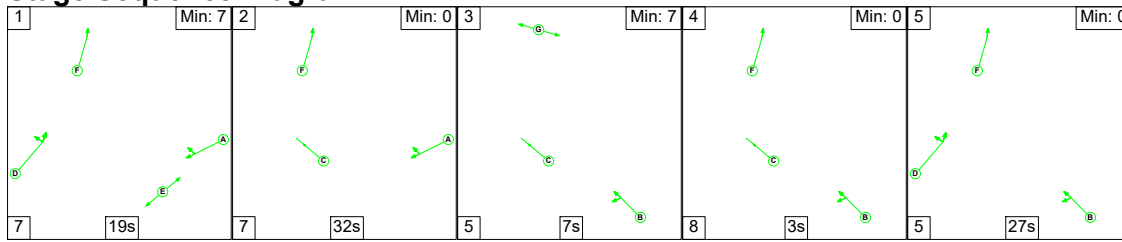
Cycle Time (s): 120
Cycle Time (s): 120

Full Input Data And Results

Scenario 8: '2025 Forecast Baseline + DEP and SEP - PM' (FG8: '2025 Forecast Baseline + DEP and SEP Flows ', Plan 1: 'Network Control Plan 1')

C1 - West Controller

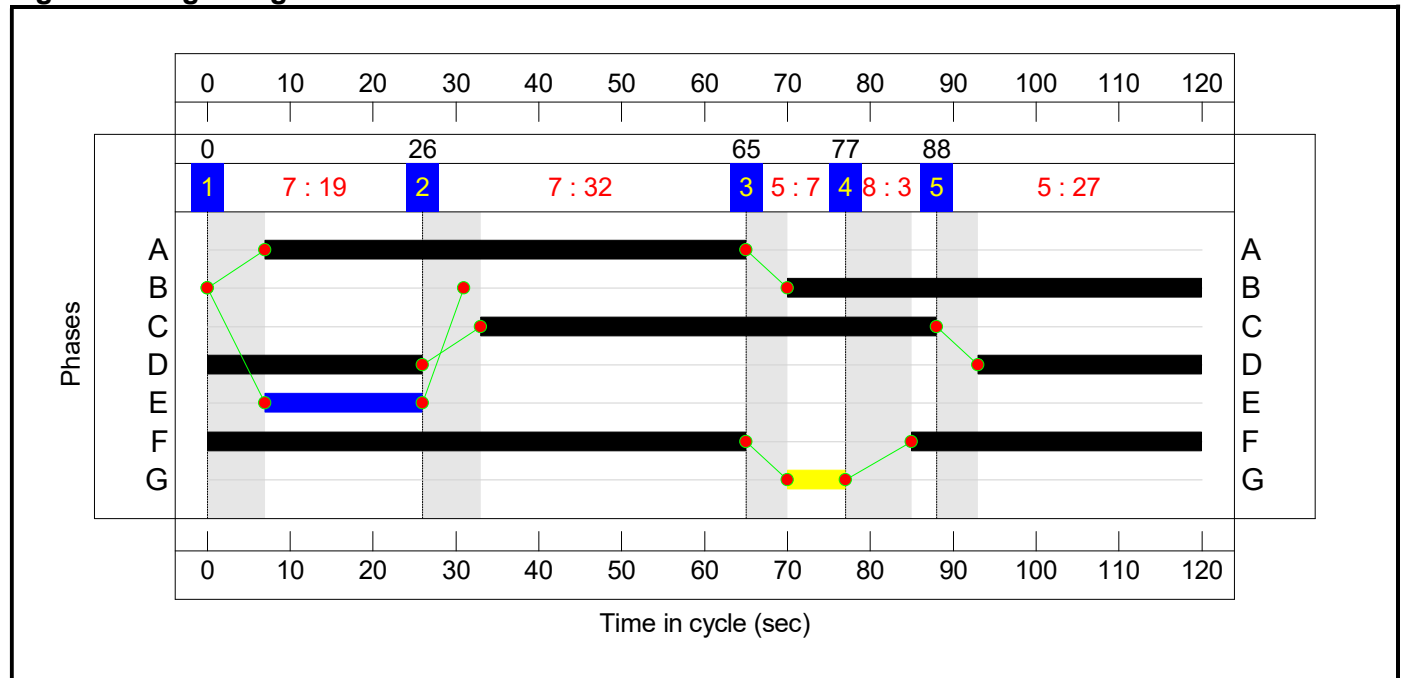
Stage Sequence Diagram



Stage Timings

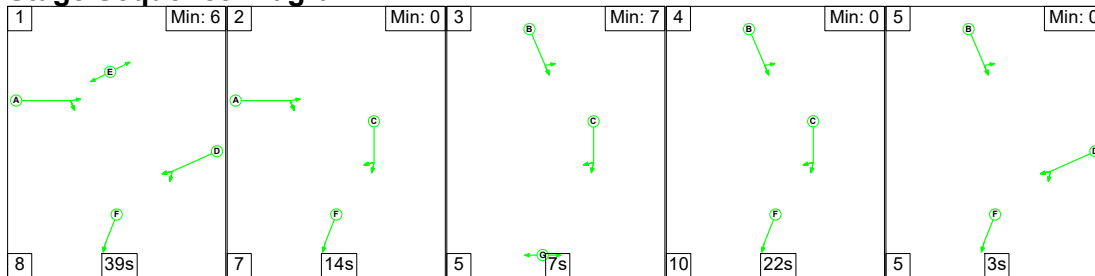
Stage	1	2	3	4	5
Duration	19	32	7	3	27
Change Point	0	26	65	77	88

Signal Timings Diagram



C2 - East Controller

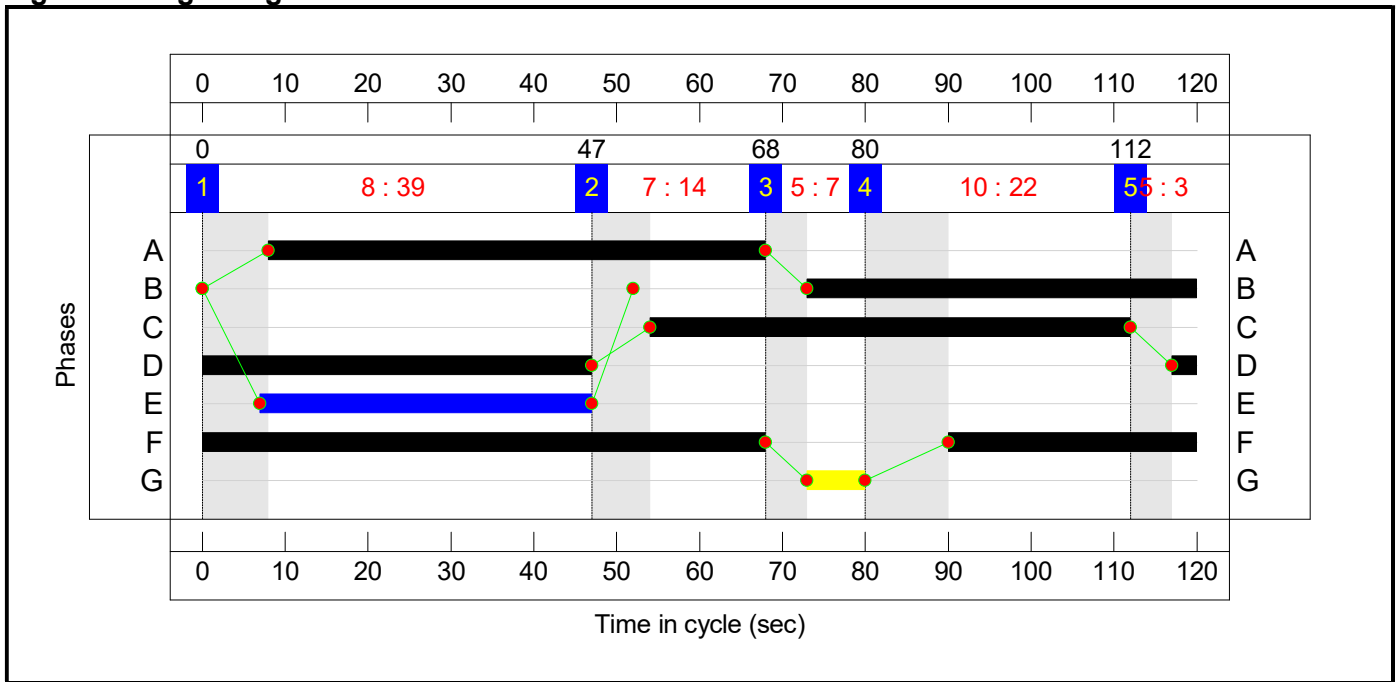
Stage Sequence Diagram



Stage Timings

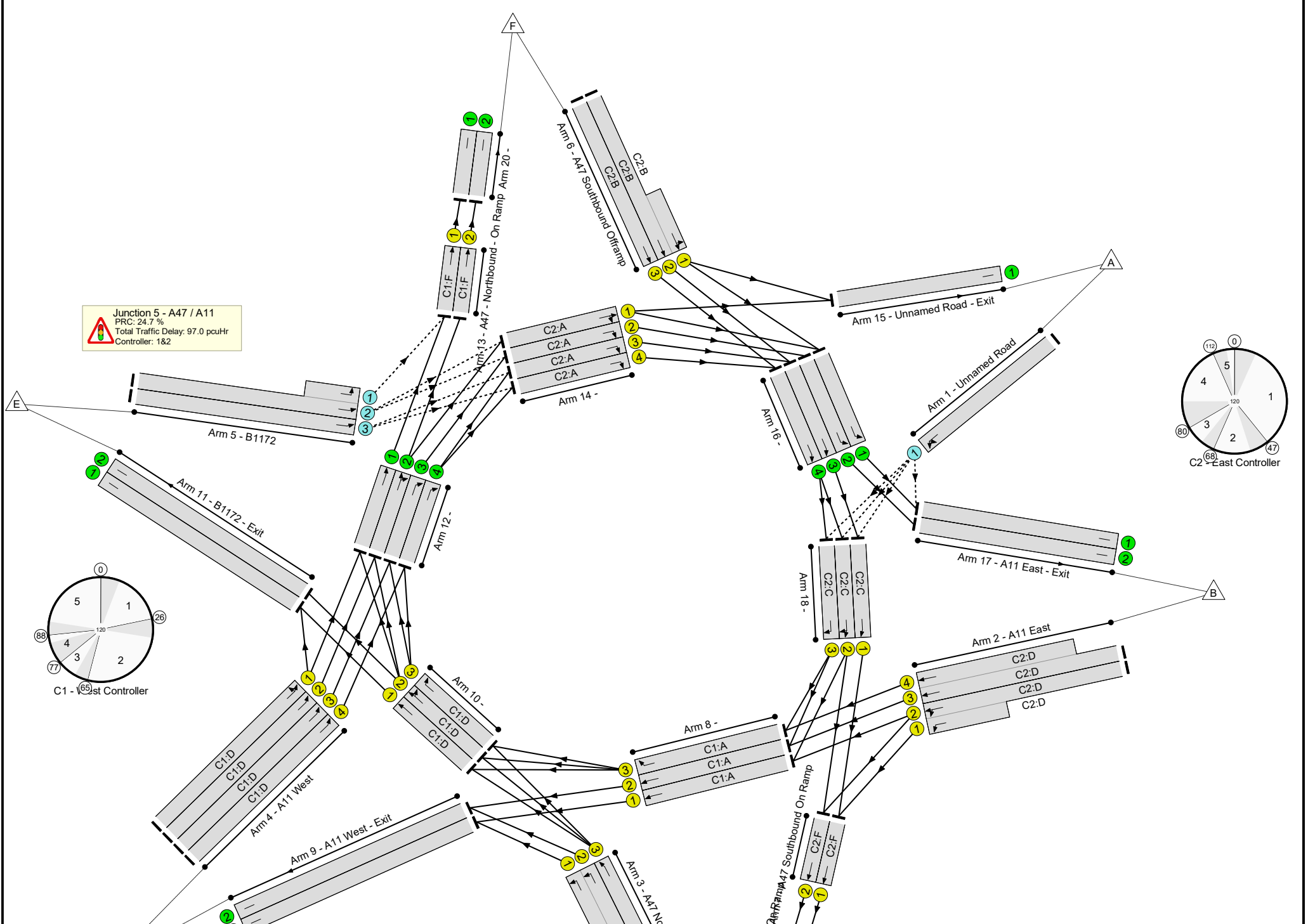
Stage	1	2	3	4	5
Duration	39	14	7	22	3
Change Point	0	47	68	80	112

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Junction 5 - A47 / A11 Grade Seperated Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	72.2%
Junction 5 - A47 / A11	-	-	N/A	-	-		-	-	-	-	-	-	72.2%
1/1	Unnamed Road Left Left2	O	N/A	N/A	-		-	-	-	1	1900	63	1.6%
2/2+2/1	A11 East Left Ahead	U	N/A	N/A	C2:D		1	50	-	605	1900:1900	606+356	62.9 : 62.9%
2/3+2/4	A11 East Ahead	U	N/A	N/A	C2:D		1	50	-	771	1900:1900	671+636	59.0 : 59.0%
3/2+3/1	A47 Northbound Off Ramp Left	U	N/A	N/A	C1:B		1	50	-	642	1900:1900	547+568	57.6 : 57.6%
3/3	A47 Northbound Off Ramp Ahead	U	N/A	N/A	C1:B		1	50	-	451	1900	808	55.9%
4/1	A11 West Left Ahead	U	N/A	N/A	C1:D		1	53	-	552	1900	855	64.6%
4/2	A11 West Ahead	U	N/A	N/A	C1:D		1	53	-	350	1900	855	40.9%
4/3	A11 West Ahead	U	N/A	N/A	C1:D		1	53	-	353	1900	855	41.3%
4/4	A11 West Ahead	U	N/A	N/A	C1:D		1	53	-	617	1900	855	72.2%
5/2+5/1	B1172 Left Ahead	O	N/A	N/A	-		-	-	-	266	1900:1900	647+227	30.5 : 30.5%
5/3	B1172 Ahead	O	N/A	N/A	-		-	-	-	433	1900	600	72.1%
6/2+6/1	A47 Southbound Offramp Left Ahead	U	N/A	N/A	C2:B		1	47	-	192	1900:1900	12+758	24.9 : 24.9%
6/3	A47 Southbound Offramp Ahead	U	N/A	N/A	C2:B		1	47	-	541	1900	760	71.2%

Full Input Data And Results

7/1	A47 Southbound On Ramp Ahead	U	N/A	N/A	C2:F		1	98	-	782	1900	1568	49.9%
7/2	A47 Southbound On Ramp Ahead	U	N/A	N/A	C2:F		1	98	-	516	1900	1568	32.9%
8/1	Ahead	U	N/A	N/A	C1:A		1	58	-	535	1900	934	57.3%
8/2	Ahead	U	N/A	N/A	C1:A		1	58	-	663	1900	934	71.0%
8/3	Right	U	N/A	N/A	C1:A		1	58	-	475	1900	934	50.8%
9/1	A11 West - Exit	U	N/A	N/A	-		-	-	-	862	1900	1900	45.4%
9/2	A11 West - Exit	U	N/A	N/A	-		-	-	-	978	1900	1900	51.5%
10/1	Ahead	U	N/A	N/A	C1:D		1	53	-	368	1900	855	43.0%
10/2	Ahead Right	U	N/A	N/A	C1:D		1	53	-	405	1900	855	47.4%
10/3	Right	U	N/A	N/A	C1:D		1	53	-	153	1900	855	17.9%
11/1	B1172 - Exit	U	N/A	N/A	-		-	-	-	432	1900	1900	22.7%
11/2	B1172 - Exit	U	N/A	N/A	-		-	-	-	150	1900	1900	7.9%
12/1	Ahead	U	N/A	N/A	-		-	-	-	576	1900	1900	30.3%
12/2	Ahead Right	U	N/A	N/A	-		-	-	-	517	1900	1900	27.2%
12/3	Right	U	N/A	N/A	-		-	-	-	506	1900	1900	26.6%
12/4	Right	U	N/A	N/A	-		-	-	-	617	1900	1900	32.5%
13/1	A47 - Northbound - On Ramp Ahead	U	N/A	N/A	C1:F		1	100	-	645	1900	1599	40.3%
13/2	A47 - Northbound - On Ramp Ahead	U	N/A	N/A	C1:F		1	100	-	118	1900	1599	7.4%
14/1	Ahead Right	U	N/A	N/A	C2:A		1	60	-	503	1900	966	52.1%
14/2	Right	U	N/A	N/A	C2:A		1	60	-	599	1900	966	62.0%
14/3	Right	U	N/A	N/A	C2:A		1	60	-	555	1900	966	57.5%
14/4	Right	U	N/A	N/A	C2:A		1	60	-	495	1900	966	51.3%
15/1	Unnamed Road - Exit	U	N/A	N/A	-		-	-	-	3	1900	1900	0.2%
16/1	Left	U	N/A	N/A	-		-	-	-	689	1900	1900	36.3%

Full Input Data And Results

16/2	Left	U	N/A	N/A	-		-	-	-	599	1900	1900	31.5%
16/3	Ahead	U	N/A	N/A	-		-	-	-	558	1900	1900	29.4%
16/4	Ahead	U	N/A	N/A	-		-	-	-	1036	1900	1900	54.5%
17/1	A11 East - Exit	U	N/A	N/A	-		-	-	-	689	1900	1900	36.3%
17/2	A11 East - Exit	U	N/A	N/A	-		-	-	-	599	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	C2:C		1	58	-	558	1900	934	59.7%
18/2	Ahead Right	U	N/A	N/A	C2:C		1	58	-	670	1900	934	71.7%
18/3	Right	U	N/A	N/A	C2:C		1	58	-	367	1900	934	39.3%
19/1	A47 - Southbound On Ramp	U	N/A	N/A	-		-	-	-	782	1900	1900	41.2%
19/2	A47 - Southbound On Ramp	U	N/A	N/A	-		-	-	-	516	1900	1900	27.2%
20/1		U	N/A	N/A	-		-	-	-	645	1900	1900	33.9%
20/2		U	N/A	N/A	-		-	-	-	118	1900	1900	6.2%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Junction 5 - A47 / A11 Grade Separated Roundabout	-	-	966	0	0	74.7	22.4	0.0	97.0	-	-	-	-
Junction 5 - A47 / A11	-	-	966	0	0	74.7	22.4	0.0	97.0	-	-	-	-
1/1	1	1	1	0	0	0.0	0.0	-	0.0	73.2	0.0	0.0	0.0
2/2+2/1	605	605	-	-	-	4.1	0.8	-	4.9	29.1	9.9	0.8	10.7
2/3+2/4	771	771	-	-	-	5.3	0.7	-	6.0	28.2	9.6	0.7	10.3
3/2+3/1	642	642	-	-	-	4.3	0.7	-	4.9	27.7	7.5	0.7	8.2
3/3	451	451	-	-	-	3.3	0.6	-	3.9	31.0	11.3	0.6	11.9
4/1	552	552	-	-	-	3.9	0.9	-	4.8	31.5	14.3	0.9	15.2
4/2	350	350	-	-	-	2.2	0.3	-	2.5	25.8	7.8	0.3	8.1
4/3	353	353	-	-	-	2.2	0.4	-	2.5	25.9	7.9	0.4	8.3
4/4	617	617	-	-	-	4.6	1.3	-	5.9	34.4	16.6	1.3	17.9
5/2+5/1	266	266	532	0	0	1.1	0.2	-	1.3	17.4	4.0	0.2	4.2
5/3	433	433	433	0	0	3.3	1.3	-	4.6	37.8	11.9	1.3	13.2
6/2+6/1	192	192	-	-	-	1.3	0.2	-	1.4	27.1	4.1	0.2	4.3
6/3	541	541	-	-	-	4.5	1.2	-	5.8	38.3	15.0	1.2	16.2
7/1	782	782	-	-	-	0.3	0.5	-	0.8	3.6	6.4	0.5	6.9
7/2	516	516	-	-	-	0.1	0.2	-	0.4	2.5	3.2	0.2	3.5
8/1	535	535	-	-	-	2.5	0.7	-	3.2	21.5	9.1	0.7	9.8
8/2	663	663	-	-	-	3.7	1.2	-	4.9	26.5	11.7	1.2	13.0
8/3	475	475	-	-	-	1.9	0.5	-	2.4	18.1	5.6	0.5	6.1
9/1	862	862	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
9/2	978	978	-	-	-	0.0	0.5	-	0.5	2.0	0.0	0.5	0.5
10/1	368	368	-	-	-	2.4	0.4	-	2.7	26.8	8.6	0.4	9.0
10/2	405	405	-	-	-	2.4	0.4	-	2.8	25.1	9.8	0.4	10.3

Full Input Data And Results

10/3	153	153	-	-	-	0.3	0.1	-	0.4	8.9	0.6	0.1	0.7
11/1	432	432	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
11/2	150	150	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
12/1	576	576	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
12/2	517	517	-	-	-	0.0	0.2	-	0.2	1.3	3.7	0.2	3.9
12/3	506	506	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/4	617	617	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
13/1	645	645	-	-	-	0.9	0.3	-	1.3	7.1	8.5	0.3	8.9
13/2	118	118	-	-	-	0.1	0.0	-	0.1	3.9	0.9	0.0	0.9
14/1	503	503	-	-	-	2.6	0.5	-	3.2	22.8	8.1	0.5	8.6
14/2	599	599	-	-	-	3.5	0.8	-	4.3	25.8	9.8	0.8	10.6
14/3	555	555	-	-	-	3.0	0.7	-	3.7	24.1	11.5	0.7	12.2
14/4	495	495	-	-	-	2.6	0.5	-	3.1	22.5	10.4	0.5	10.9
15/1	3	3	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
16/1	689	689	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
16/2	599	599	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
16/3	558	558	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
16/4	1036	1036	-	-	-	0.0	0.6	-	0.6	2.1	0.0	0.6	0.6
17/1	689	689	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
17/2	599	599	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	558	558	-	-	-	2.9	0.7	-	3.6	23.2	7.1	0.7	7.8
18/2	670	670	-	-	-	3.7	1.3	-	5.0	26.7	13.9	1.3	15.1
18/3	367	367	-	-	-	1.9	0.3	-	2.2	22.0	10.7	0.3	11.0
19/1	782	782	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
19/2	516	516	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
20/1	645	645	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
20/2	118	118	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0

C1 - West Controller
C2 - East Controller

PRC for Signalled Lanes (%): 24.7
PRC for Signalled Lanes (%): 25.5
PRC Over All Lanes (%): 24.7

Total Delay for Signalled Lanes (pcuHr): 42.40
Total Delay for Signalled Lanes (pcuHr): 44.37
Total Delay Over All Lanes(pcuHr): 97.02

Cycle Time (s): 120
Cycle Time (s): 120

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896

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Filename: Junction 6 - Existing Layout - Construction Peaks.j9**Path:** C:\Users\921707\Box\PB8164 Equinor DOW SS Ext\PB8164 Team\PB8164 Technical Data\E08
Transport\TD\Calcs\Modelling\J6**Report generation date:** 14/04/2023 11:16:25

-
- »Existing Layout - 2021 - Construction Peak - Baseline, AM
 - »Existing Layout - 2021 - Construction Peak - Baseline , PM
 - »Existing Layout - 2025 - Forecast Background flows, AM
 - »Existing Layout - 2025 - Forecast Background flows, PM
 - »Existing Layout - 2025 - Forecast Background flows + SEP or DEP in Isolation , AM
 - »Existing Layout - 2025 - Forecast Background flows + SEP or DEP in Isolation , PM
 - »Existing Layout - 2025 - Forecast Background flows + SEP and DEP, AM
 - »Existing Layout - 2025 - Forecast Background flows + SEP and DEP , PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Existing Layout - 2021 - Construction Peak - Baseline														
A - A47 Westbound	0.3	2.56	0.22	A	2.73	A	115 % [C - A140 South]	0.3	3.07	0.24	A	3.37	A	51 % [F - A140 North]
B - Markshall Farm Road	0.1	4.12	0.10	A				0.1	5.01	0.12	A			
C - A140 South	0.6	2.54	0.38	A				0.6	2.59	0.39	A			
D - A47 Eastbound	0.3	2.87	0.25	A				0.5	3.11	0.33	A			
E - Unnamed Road	0.0	0.00	0.00	A				0.0	3.19	0.04	A			
F - A140 North	0.4	2.81	0.30	A				1.1	4.20	0.53	A			
Existing Layout - 2025 - Forecast Background flows														
A - A47 Westbound	0.3	2.70	0.24	A	2.90	A	100 % [C - A140 South]	0.4	3.36	0.27	A	3.77	A	40 % [F - A140 North]
B - Markshall Farm Road	0.1	4.36	0.11	A				0.2	5.52	0.14	A			
C - A140 South	0.7	2.71	0.41	A				0.7	2.80	0.43	A			
D - A47 Eastbound	0.4	3.05	0.28	A				0.6	3.39	0.37	A			
E - Unnamed Road	0.0	0.00	0.00	A				0.0	3.39	0.04	A			
F - A140 North	0.5	2.98	0.33	A				1.4	4.88	0.59	A			
Existing Layout - 2025 - Forecast Background flows + SEP or DEP in Isolation														
A - A47 Westbound	0.4	3.03	0.29	A	3.13	A	82 % [B - Markshall Farm Road]	0.4	3.59	0.29	A	4.23	A	33 % [F - A140 North]
B - Markshall Farm Road	0.1	4.86	0.12	A				0.2	5.81	0.14	A			
C - A140 South	0.8	2.87	0.44	A				1.0	3.23	0.49	A			
D - A47 Eastbound	0.4	3.24	0.31	A				0.7	3.93	0.42	A			
E - Unnamed Road	0.0	0.00	0.00	A				0.0	3.73	0.05	A			
F - A140 North	0.6	3.25	0.38	A				1.6	5.56	0.62	A			
Existing Layout - 2025 - Forecast Background flows + SEP and DEP														
A - A47 Westbound	0.5	3.30	0.32	A	3.33	A	69 % [B - Markshall Farm Road]	0.4	3.76	0.30	A	4.63	A	28 % [F - A140 North]
B - Markshall Farm Road	0.1	5.27	0.13	A				0.2	6.03	0.15	A			
C - A140 South	0.8	2.99	0.45	A				1.2	3.61	0.54	A			
D - A47 Eastbound	0.5	3.44	0.33	A				0.8	4.45	0.46	A			
E - Unnamed Road	0.0	0.00	0.00	A				0.1	4.00	0.05	A			
F - A140 North	0.7	3.50	0.41	A				1.8	6.13	0.65	A			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

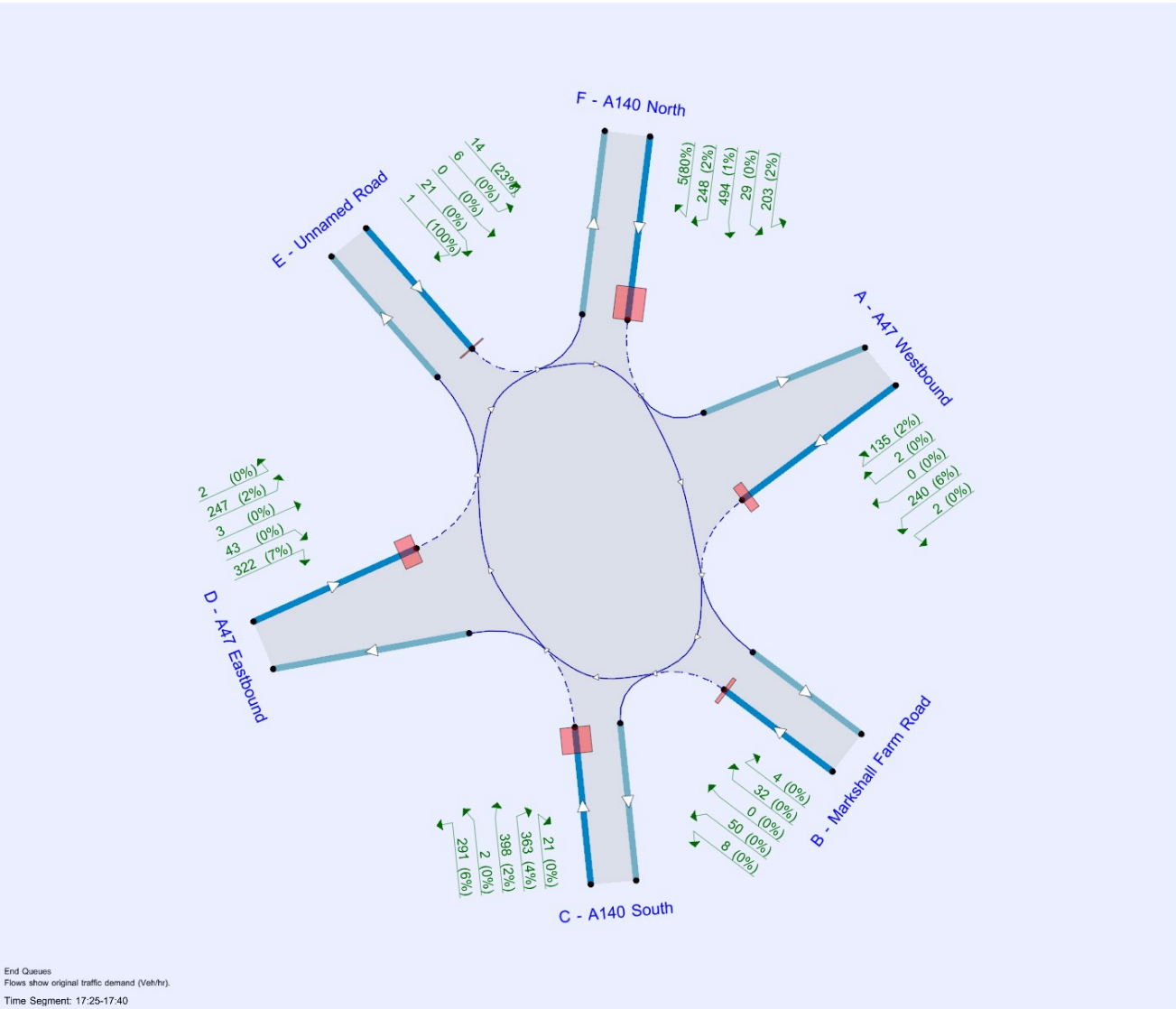
File summary

File Description

Title	Junction 6
Location	A47 / A140 / Markshall Farm Road
Site number	6
Date	11/04/2022
Version	1
Status	Existing Layout
Identifier	
Client	Equinor
Jobnumber	PB8164
Enumerator	CORPORATEROOT\921707
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓		✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021 - Construction Peak - Baseline	AM	ONE HOUR	06:15	07:45	15	✓	✓
D2	2021 - Construction Peak - Baseline	PM	ONE HOUR	17:10	18:40	15	✓	✓
D3	2025 - Forecast Background flows	AM	ONE HOUR	06:15	07:45	15	✓	✓
D4	2025 - Forecast Background flows	PM	ONE HOUR	17:10	18:40	15	✓	✓
D5	2025 - Forecast Background flows + SEP or DEP in Isolation	AM	ONE HOUR	06:15	07:45	15	✓	✓
D6	2025 - Forecast Background flows + SEP or DEP in Isolation	PM	ONE HOUR	17:10	18:40	15	✓	✓
D7	2025 - Forecast Background flows + SEP and DEP	AM	ONE HOUR	06:15	07:45	15	✓	✓
D8	2025 - Forecast Background flows + SEP and DEP	PM	ONE HOUR	17:10	18:40	15	✓	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A6	Existing Layout	✓	100.000	100.000

Existing Layout - 2021 - Construction Peak - Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A140 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	F - A140 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D1 - 2021 - Construction Peak - Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
6	A47 / A140 / Markshall Farm Road	Large Roundabout		A, B, C, D, E, F	2.73	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	115	C - A140 South

Arms

Arms

Arm	Name	Description
A	A47 Westbound	
B	Markshall Farm Road	
C	A140 South	
D	A47 Eastbound	
E	Unnamed Road	
F	A140 North	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - A47 Westbound	8.16	8.16	0.0	20.6	107.0	19.0	
B - Markshall Farm Road	3.26	7.04	6.2	21.0	111.9	19.5	
C - A140 South	4.15	9.97	37.5	25.8	108.0	14.5	
D - A47 Eastbound	8.23	8.23	0.0	23.9	114.7	39.0	
E - Unnamed Road	6.15	7.80	6.0	19.5	114.7	19.0	
F - A140 North	5.06	10.10	41.9	33.8	106.1	16.5	

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A - A47 Westbound	1466	89.30
B - Markshall Farm Road	1892	20.15
C - A140 South	649	28.20
D - A47 Eastbound	965	93.30
E - Unnamed Road	1711	29.90
F - A140 North	858	27.28

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A47 Westbound	0.911	2909
B - Markshall Farm Road	0.590	1813
C - A140 South	1.107	3253
D - A47 Eastbound	0.963	2881
E - Unnamed Road	0.779	2616
F - A140 North	1.117	3426

The slope and intercept shown above include any corrections and adjustments.

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A47 Westbound	Percentage		85.00
B - Markshall Farm Road	Percentage		85.00
C - A140 South	Percentage		85.00
D - A47 Eastbound	Percentage		85.00
E - Unnamed Road	Percentage		85.00
F - A140 North	Percentage		70.00

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021 - Construction Peak - Baseline	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 Westbound		ONE HOUR	✓	354	100.000
B - Markshall Farm Road		ONE HOUR	✓	87	100.000
C - A140 South		ONE HOUR	✓	788	100.000
D - A47 Eastbound		ONE HOUR	✓	383	100.000
E - Unnamed Road		ONE HOUR	✓	4	100.000
F - A140 North		ONE HOUR	✓	505	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	1	5	256	0	3	89
	B - Markshall Farm Road	4	0	5	57	0	21
	C - A140 South	238	8	0	277	4	261
	D - A47 Eastbound	1	16	219	0	5	142
	E - Unnamed Road	1	0	2	0	0	1
	F - A140 North	113	17	251	119	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	0	0	5	0	0	6
	B - Markshall Farm Road	0	0	0	2	0	0
	C - A140 South	7	0	0	7	0	6
	D - A47 Eastbound	0	0	13	0	40	6
	E - Unnamed Road	0	0	0	0	0	100
	F - A140 North	4	0	6	7	40	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 Westbound	0.22	2.56	0.3	1.0	A	354	354
B - Markshall Farm Road	0.10	4.12	0.1	0.5	A	87	87
C - A140 South	0.38	2.54	0.6	2.8	A	788	788
D - A47 Eastbound	0.25	2.87	0.3	1.3	A	383	383
E - Unnamed Road	0.00	0.00	0.0	-1	A	0	0
F - A140 North	0.30	2.81	0.4	1.6	A	505	505

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	318	80	570	1898	0.168	318	321	0.2	0.2	2.278	A
B - Markshall Farm Road	78	20	847	1072	0.073	78	41	0.1	0.1	3.622	A
C - A140 South	708	177	269	2342	0.302	708	657	0.3	0.4	2.203	A
D - A47 Eastbound	344	86	570	1777	0.194	344	407	0.2	0.2	2.511	A
E - Unnamed Road	0	0	898	1268	0.000	0	15	0.0	0.0	0.000	A
F - A140 North	454	113	438	1918	0.237	454	461	0.2	0.3	2.457	A

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	390	97	699	1796	0.217	389	393	0.2	0.3	2.560	A
B - Markshall Farm Road	96	24	1037	970	0.099	96	51	0.1	0.1	4.116	A
C - A140 South	868	217	329	2286	0.380	867	804	0.4	0.6	2.535	A
D - A47 Eastbound	422	105	697	1676	0.252	421	498	0.2	0.3	2.869	A
E - Unnamed Road	0	0	1100	1153	0.000	0	19	0.0	0.0	0.000	A
F - A140 North	556	139	536	1839	0.302	556	564	0.3	0.4	2.805	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	390	97	699	1795	0.217	390	393	0.3	0.3	2.560	A
B - Markshall Farm Road	96	24	1038	970	0.099	96	51	0.1	0.1	4.118	A
C - A140 South	868	217	329	2286	0.380	868	805	0.6	0.6	2.537	A
D - A47 Eastbound	422	105	698	1676	0.252	422	499	0.3	0.3	2.870	A
E - Unnamed Road	0	0	1101	1153	0.000	0	19	0.0	0.0	0.000	A
F - A140 North	556	139	536	1839	0.302	556	565	0.4	0.4	2.806	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	318	80	571	1897	0.168	319	321	0.3	0.2	2.280	A
B - Markshall Farm Road	78	20	849	1071	0.073	78	41	0.1	0.1	3.629	A
C - A140 South	708	177	269	2342	0.303	709	658	0.6	0.4	2.207	A
D - A47 Eastbound	344	86	571	1776	0.194	345	408	0.3	0.2	2.514	A
E - Unnamed Road	0	0	900	1267	0.000	0	15	0.0	0.0	0.000	A
F - A140 North	454	113	438	1918	0.237	454	462	0.4	0.3	2.462	A

Queue Variation Results for each time segment
06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.20	0.00	0.00	0.20	0.20			N/A	N/A
B - Markshall Farm Road	0.08	0.03	0.25	0.46	0.48			N/A	N/A
C - A140 South	0.43	0.00	0.00	0.43	0.43			N/A	N/A
D - A47 Eastbound	0.24	0.00	0.00	0.24	0.24			N/A	N/A
E - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
F - A140 North	0.31	0.00	0.00	0.31	0.31			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.28	0.03	0.25	0.45	0.48			N/A	N/A
B - Markshall Farm Road	0.11	0.03	0.26	0.47	0.49			N/A	N/A
C - A140 South	0.61	0.03	0.25	0.61	0.61			N/A	N/A
D - A47 Eastbound	0.33	0.03	0.25	0.45	0.48			N/A	N/A
E - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
F - A140 North	0.43	0.03	0.25	0.45	0.48			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.28	0.03	0.28	0.59	1.05			N/A	N/A
B - Markshall Farm Road	0.11	0.00	0.00	0.11	0.11			N/A	N/A
C - A140 South	0.61	0.03	0.29	1.25	2.79			N/A	N/A
D - A47 Eastbound	0.34	0.03	0.32	1.10	1.34			N/A	N/A
E - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
F - A140 North	0.43	0.03	0.32	1.36	1.62			N/A	N/A

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.20	0.00	0.00	0.20	0.20			N/A	N/A
B - Markshall Farm Road	0.08	0.00	0.00	0.08	0.08			N/A	N/A
C - A140 South	0.44	0.00	0.00	0.44	0.44			N/A	N/A
D - A47 Eastbound	0.24	0.00	0.00	0.24	0.24			N/A	N/A
E - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
F - A140 North	0.31	0.00	0.00	0.31	0.31			N/A	N/A

Existing Layout - 2021 - Construction Peak - Baseline , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A140 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	F - A140 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D2 - 2021 - Construction Peak - Baseline , PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
6	A47 / A140 / Markshall Farm Road	Large Roundabout		A, B, C, D, E, F	3.37	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	51	F - A140 North

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A - A47 Westbound	1466	89.30
B - Markshall Farm Road	1892	20.15
C - A140 South	649	28.20
D - A47 Eastbound	965	93.30
E - Unnamed Road	1711	29.90
F - A140 North	858	27.28

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)	Results for central hour only	Run automatically
D2	2021 - Construction Peak - Baseline	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 Westbound		ONE HOUR	✓	332	100.000
B - Markshall Farm Road		ONE HOUR	✓	88	100.000
C - A140 South		ONE HOUR	✓	803	100.000
D - A47 Eastbound		ONE HOUR	✓	525	100.000
E - Unnamed Road		ONE HOUR	✓	39	100.000
F - A140 North		ONE HOUR	✓	885	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	2	2	215	0	2	111
	B - Markshall Farm Road	4	1	7	46	0	30
	C - A140 South	266	19	0	217	2	299
	D - A47 Eastbound	3	40	260	0	2	220
	E - Unnamed Road	6	0	19	1	0	13
	F - A140 North	174	27	458	221	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	0	0	2	0	0	1
	B - Markshall Farm Road	0	0	0	0	0	0
	C - A140 South	3	0	0	1	0	3
	D - A47 Eastbound	0	0	2	0	0	1
	E - Unnamed Road	0	0	0	100	0	23
	F - A140 North	1	0	1	1	80	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 Westbound	0.24	3.07	0.3	1.3	A	332	332
B - Markshall Farm Road	0.12	5.01	0.1	0.5	A	88	88
C - A140 South	0.39	2.59	0.6	2.8	A	803	803
D - A47 Eastbound	0.33	3.11	0.5	2.1	A	525	525
E - Unnamed Road	0.04	3.19	0.0	0.5	A	39	39
F - A140 North	0.53	4.20	1.1	1.5	A	885	885

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	298	75	944	1701	0.175	298	409	0.2	0.2	2.566	A
B - Markshall Farm Road	79	20	1162	949	0.083	79	80	0.1	0.1	4.139	A
C - A140 South	722	180	380	2355	0.307	721	861	0.3	0.4	2.204	A
D - A47 Eastbound	472	118	666	1861	0.254	472	436	0.3	0.3	2.591	A
E - Unnamed Road	35	9	1127	1327	0.026	35	10	0.0	0.0	2.786	A
F - A140 North	796	199	558	1931	0.412	795	605	0.5	0.7	3.168	A

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	366	91	1155	1538	0.238	365	500	0.2	0.3	3.069	A
B - Markshall Farm Road	97	24	1423	816	0.119	97	98	0.1	0.1	5.004	A
C - A140 South	884	221	465	2275	0.389	883	1054	0.4	0.6	2.586	A
D - A47 Eastbound	578	145	815	1737	0.333	577	533	0.3	0.5	3.102	A
E - Unnamed Road	43	11	1380	1172	0.037	43	12	0.0	0.0	3.187	A
F - A140 North	974	244	683	1832	0.532	973	740	0.7	1.1	4.180	A

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	366	91	1157	1537	0.238	366	501	0.3	0.3	3.072	A
B - Markshall Farm Road	97	24	1425	815	0.119	97	98	0.1	0.1	5.013	A
C - A140 South	884	221	466	2274	0.389	884	1056	0.6	0.6	2.589	A
D - A47 Eastbound	578	145	816	1737	0.333	578	534	0.5	0.5	3.106	A
E - Unnamed Road	43	11	1382	1171	0.037	43	12	0.0	0.0	3.190	A
F - A140 North	974	244	684	1832	0.532	974	741	1.1	1.1	4.199	A

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	298	75	947	1699	0.176	299	410	0.3	0.2	2.571	A
B - Markshall Farm Road	79	20	1165	947	0.084	79	80	0.1	0.1	4.150	A
C - A140 South	722	180	381	2354	0.307	723	864	0.6	0.4	2.207	A
D - A47 Eastbound	472	118	667	1860	0.254	473	437	0.5	0.3	2.595	A
E - Unnamed Road	35	9	1130	1325	0.026	35	10	0.0	0.0	2.791	A
F - A140 North	796	199	559	1930	0.412	797	606	1.1	0.7	3.182	A

Queue Variation Results for each time segment

17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.21	0.00	0.00	0.21	0.21			N/A	N/A
B - Markshall Farm Road	0.09	0.03	0.25	0.45	0.48			N/A	N/A
C - A140 South	0.44	0.00	0.00	0.44	0.44			N/A	N/A
D - A47 Eastbound	0.34	0.00	0.00	0.34	0.34			N/A	N/A
E - Unnamed Road	0.03	0.03	0.25	0.45	0.48			N/A	N/A
F - A140 North	0.70	0.08	0.77	1.39	1.47			N/A	N/A

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.31	0.03	0.25	0.45	0.48			N/A	N/A
B - Markshall Farm Road	0.13	0.03	0.26	0.46	0.49			N/A	N/A
C - A140 South	0.63	0.03	0.25	0.63	0.63			N/A	N/A
D - A47 Eastbound	0.50	0.03	0.25	0.50	0.50			N/A	N/A
E - Unnamed Road	0.04	0.00	0.00	0.04	0.04			N/A	N/A
F - A140 North	1.13	0.03	0.26	1.13	1.13			N/A	N/A

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.31	0.03	0.31	0.99	1.26			N/A	N/A
B - Markshall Farm Road	0.13	0.03	0.25	0.45	0.48			N/A	N/A
C - A140 South	0.63	0.03	0.29	1.19	2.82			N/A	N/A
D - A47 Eastbound	0.50	0.03	0.31	1.45	2.11			N/A	N/A
E - Unnamed Road	0.04	0.00	0.00	0.04	0.04			N/A	N/A
F - A140 North	1.13	0.03	0.27	1.13	1.40			N/A	N/A

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.21	0.00	0.00	0.21	0.21			N/A	N/A
B - Markshall Farm Road	0.09	0.00	0.00	0.09	0.09			N/A	N/A
C - A140 South	0.44	0.00	0.00	0.44	0.44			N/A	N/A
D - A47 Eastbound	0.34	0.00	0.00	0.34	0.34			N/A	N/A
E - Unnamed Road	0.03	0.00	0.00	0.03	0.03			N/A	N/A
F - A140 North	0.71	0.55	1.00	1.40	1.45			N/A	N/A

Existing Layout - 2025 - Forecast Background flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A140 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	F - A140 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D3 - 2025 - Forecast Background flows, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
6	A47 / A140 / Markshall Farm Road	Large Roundabout		A, B, C, D, E, F	2.90	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	100	C - A140 South

Arms

Arms

[\[same as above\]](#)

Roundabout Geometry

[\[same as above\]](#)

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A - A47 Westbound	1466	89.30
B - Markshall Farm Road	1892	20.15
C - A140 South	649	28.20
D - A47 Eastbound	965	93.30
E - Unnamed Road	1711	29.90
F - A140 North	858	27.28

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)	Results for central hour only	Run automatically
D3	2025 - Forecast Background flows	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 Westbound		ONE HOUR	✓	381	100.000
B - Markshall Farm Road		ONE HOUR	✓	93	100.000
C - A140 South		ONE HOUR	✓	849	100.000
D - A47 Eastbound		ONE HOUR	✓	412	100.000
E - Unnamed Road		ONE HOUR	✓	4	100.000
F - A140 North		ONE HOUR	✓	544	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	1	5	276	0	3	96
	B - Markshall Farm Road	4	0	5	61	0	23
	C - A140 South	256	9	0	299	4	281
	D - A47 Eastbound	1	17	236	0	5	153
	E - Unnamed Road	1	0	2	0	0	1
	F - A140 North	122	18	271	128	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	0	0	5	0	0	6
	B - Markshall Farm Road	0	0	0	2	0	0
	C - A140 South	7	0	0	7	0	6
	D - A47 Eastbound	0	0	13	0	40	6
	E - Unnamed Road	0	0	0	0	0	100
	F - A140 North	4	0	6	7	40	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 Westbound	0.24	2.70	0.3	1.3	A	381	381
B - Markshall Farm Road	0.11	4.36	0.1	0.5	A	93	93
C - A140 South	0.41	2.71	0.7	2.7	A	849	849
D - A47 Eastbound	0.28	3.05	0.4	1.0	A	412	412
E - Unnamed Road	0.00	0.00	0.0	~1	A	0	0
F - A140 North	0.33	2.98	0.5	2.1	A	544	544

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	343	86	614	1863	0.184	342	345	0.2	0.2	2.367	A
B - Markshall Farm Road	84	21	913	1037	0.081	84	44	0.1	0.1	3.775	A
C - A140 South	763	191	288	2324	0.328	763	708	0.4	0.5	2.306	A
D - A47 Eastbound	370	93	613	1743	0.212	370	438	0.2	0.3	2.621	A
E - Unnamed Road	0	0	968	1229	0.000	0	15	0.0	0.0	0.000	A
F - A140 North	489	122	471	1892	0.259	489	497	0.3	0.3	2.565	A

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	419	105	752	1753	0.239	419	422	0.2	0.3	2.699	A
B - Markshall Farm Road	102	26	1118	928	0.110	102	54	0.1	0.1	4.362	A
C - A140 South	935	234	353	2264	0.413	934	867	0.5	0.7	2.706	A
D - A47 Eastbound	454	113	750	1635	0.277	453	537	0.3	0.4	3.047	A
E - Unnamed Road	0	0	1185	1105	0.000	0	19	0.0	0.0	0.000	A
F - A140 North	599	150	576	1806	0.332	598	608	0.3	0.5	2.978	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	419	105	753	1752	0.239	419	423	0.3	0.3	2.700	A
B - Markshall Farm Road	102	26	1119	927	0.110	102	54	0.1	0.1	4.364	A
C - A140 South	935	234	353	2263	0.413	935	868	0.7	0.7	2.708	A
D - A47 Eastbound	454	113	751	1634	0.278	454	537	0.4	0.4	3.048	A
E - Unnamed Road	0	0	1186	1104	0.000	0	19	0.0	0.0	0.000	A
F - A140 North	599	150	577	1806	0.332	599	609	0.5	0.5	2.982	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	343	86	616	1862	0.184	343	346	0.3	0.2	2.370	A
B - Markshall Farm Road	84	21	914	1036	0.081	84	44	0.1	0.1	3.783	A
C - A140 South	763	191	289	2323	0.329	764	709	0.7	0.5	2.309	A
D - A47 Eastbound	370	93	614	1743	0.213	371	439	0.4	0.3	2.626	A
E - Unnamed Road	0	0	969	1228	0.000	0	15	0.0	0.0	0.000	A
F - A140 North	489	122	472	1891	0.259	490	498	0.5	0.4	2.571	A

Queue Variation Results for each time segment

06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.22	0.00	0.00	0.22	0.22			N/A	N/A
B - Markshall Farm Road	0.09	0.03	0.25	0.46	0.48			N/A	N/A
C - A140 South	0.49	0.00	0.00	0.49	0.49			N/A	N/A
D - A47 Eastbound	0.27	0.00	0.00	0.27	0.27			N/A	N/A
E - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
F - A140 North	0.35	0.00	0.00	0.35	0.35			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.31	0.03	0.25	0.45	0.48			N/A	N/A
B - Markshall Farm Road	0.12	0.03	0.26	0.46	0.49			N/A	N/A
C - A140 South	0.70	0.03	0.25	0.70	0.70			N/A	N/A
D - A47 Eastbound	0.38	0.03	0.25	0.45	0.48			N/A	N/A
E - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
F - A140 North	0.49	0.03	0.25	0.49	0.49			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.31	0.03	0.31	1.01	1.27			N/A	N/A
B - Markshall Farm Road	0.12	0.00	0.00	0.12	0.12			N/A	N/A
C - A140 South	0.70	0.03	0.28	0.78	2.66			N/A	N/A
D - A47 Eastbound	0.38	0.03	0.33	1.04	1.04			N/A	N/A
E - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
F - A140 North	0.49	0.03	0.31	1.44	2.14			N/A	N/A

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.23	0.00	0.00	0.23	0.23			N/A	N/A
B - Markshall Farm Road	0.09	0.00	0.00	0.09	0.09			N/A	N/A
C - A140 South	0.49	0.00	0.00	0.49	0.49			N/A	N/A
D - A47 Eastbound	0.27	0.00	0.00	0.27	0.27			N/A	N/A
E - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
F - A140 North	0.35	0.00	0.00	0.35	0.35			N/A	N/A

Existing Layout - 2025 - Forecast Background flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A140 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	F - A140 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D4 - 2025 - Forecast Background flows, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
6	A47 / A140 / Markshall Farm Road	Large Roundabout		A, B, C, D, E, F	3.77	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	40	F - A140 North

Arms

Arms

[\[same as above\]](#)

Roundabout Geometry

[\[same as above\]](#)

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A - A47 Westbound	1466	89.30
B - Markshall Farm Road	1892	20.15
C - A140 South	649	28.20
D - A47 Eastbound	965	93.30
E - Unnamed Road	1711	29.90
F - A140 North	858	27.28

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)	Results for central hour only	Run automatically
D4	2025 - Forecast Background flows	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 Westbound		ONE HOUR	✓	358	100.000
B - Markshall Farm Road		ONE HOUR	✓	95	100.000
C - A140 South		ONE HOUR	✓	867	100.000
D - A47 Eastbound		ONE HOUR	✓	566	100.000
E - Unnamed Road		ONE HOUR	✓	42	100.000
F - A140 North		ONE HOUR	✓	955	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	2	2	232	0	2	120
	B - Markshall Farm Road	4	1	8	50	0	32
	C - A140 South	287	21	0	234	2	323
	D - A47 Eastbound	3	43	281	0	2	237
	E - Unnamed Road	6	0	21	1	0	14
	F - A140 North	188	29	494	239	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	0	0	2	0	0	1
	B - Markshall Farm Road	0	0	0	0	0	0
	C - A140 South	3	0	0	1	0	3
	D - A47 Eastbound	0	0	2	0	0	1
	E - Unnamed Road	0	0	0	100	0	23
	F - A140 North	1	0	1	1	80	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 Westbound	0.27	3.36	0.4	1.4	A	358	358
B - Markshall Farm Road	0.14	5.52	0.2	0.5	A	95	95
C - A140 South	0.43	2.80	0.7	2.6	A	867	867
D - A47 Eastbound	0.37	3.39	0.6	2.8	A	566	566
E - Unnamed Road	0.04	3.39	0.0	0.5	A	42	42
F - A140 North	0.59	4.88	1.4	1.7	A	955	955

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	322	80	1019	1643	0.196	322	440	0.2	0.2	2.724	A
B - Markshall Farm Road	85	21	1255	902	0.095	85	86	0.1	0.1	4.409	A
C - A140 South	779	195	409	2327	0.335	779	930	0.4	0.5	2.325	A
D - A47 Eastbound	509	127	718	1817	0.280	508	471	0.3	0.4	2.751	A
E - Unnamed Road	38	9	1216	1275	0.030	38	10	0.0	0.0	2.909	A
F - A140 North	859	215	602	1897	0.453	858	652	0.6	0.8	3.461	A

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	394	99	1247	1467	0.269	394	539	0.2	0.4	3.351	A
B - Markshall Farm Road	105	26	1535	759	0.138	104	106	0.1	0.2	5.502	A
C - A140 South	955	239	501	2241	0.426	954	1139	0.5	0.7	2.794	A
D - A47 Eastbound	623	156	879	1684	0.370	622	576	0.4	0.6	3.390	A
E - Unnamed Road	46	12	1489	1107	0.042	46	12	0.0	0.0	3.391	A
F - A140 North	1051	263	737	1790	0.587	1049	798	0.8	1.4	4.843	A

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	394	99	1250	1466	0.269	394	539	0.4	0.4	3.359	A
B - Markshall Farm Road	105	26	1538	757	0.138	105	106	0.2	0.2	5.515	A
C - A140 South	955	239	502	2240	0.426	955	1141	0.7	0.7	2.799	A
D - A47 Eastbound	623	156	880	1683	0.370	623	577	0.6	0.6	3.395	A
E - Unnamed Road	46	12	1491	1106	0.042	46	12	0.0	0.0	3.394	A
F - A140 North	1051	263	738	1789	0.588	1051	799	1.4	1.4	4.878	A

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	322	80	1023	1640	0.196	322	441	0.4	0.2	2.731	A
B - Markshall Farm Road	85	21	1259	900	0.095	86	86	0.2	0.1	4.424	A
C - A140 South	779	195	411	2326	0.335	780	933	0.7	0.5	2.332	A
D - A47 Eastbound	509	127	719	1816	0.280	510	472	0.6	0.4	2.756	A
E - Unnamed Road	38	9	1219	1273	0.030	38	10	0.0	0.0	2.913	A
F - A140 North	859	215	603	1896	0.453	861	654	1.4	0.8	3.486	A

Queue Variation Results for each time segment

17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.24	0.00	0.00	0.24	0.24			N/A	N/A
B - Markshall Farm Road	0.10	0.00	0.00	0.10	0.10			N/A	N/A
C - A140 South	0.50	0.50	1.00	1.40	1.45			N/A	N/A
D - A47 Eastbound	0.39	0.00	0.00	0.39	0.39			N/A	N/A
E - Unnamed Road	0.03	0.03	0.25	0.45	0.48			N/A	N/A
F - A140 North	0.82	0.07	0.77	1.28	1.74			N/A	N/A

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.37	0.03	0.25	0.45	0.48			N/A	N/A
B - Markshall Farm Road	0.16	0.03	0.26	0.46	0.49			N/A	N/A
C - A140 South	0.74	0.03	0.25	0.74	0.74			N/A	N/A
D - A47 Eastbound	0.58	0.03	0.25	0.58	0.58			N/A	N/A
E - Unnamed Road	0.04	0.03	0.25	0.45	0.48			N/A	N/A
F - A140 North	1.41	0.03	0.26	1.41	1.41			N/A	N/A

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.37	0.03	0.33	1.19	1.43			N/A	N/A
B - Markshall Farm Road	0.16	0.03	0.25	0.45	0.48			N/A	N/A
C - A140 South	0.74	0.03	0.28	0.74	2.59			N/A	N/A
D - A47 Eastbound	0.59	0.03	0.30	1.41	2.76			N/A	N/A
E - Unnamed Road	0.04	0.00	0.00	0.04	0.04			N/A	N/A
F - A140 North	1.42	0.03	0.27	1.42	1.42			N/A	N/A

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.24	0.00	0.00	0.24	0.24			N/A	N/A
B - Markshall Farm Road	0.11	0.00	0.00	0.11	0.11			N/A	N/A
C - A140 South	0.51	0.51	1.00	1.40	1.45			N/A	N/A
D - A47 Eastbound	0.39	0.00	0.00	0.39	0.39			N/A	N/A
E - Unnamed Road	0.03	0.00	0.00	0.03	0.03			N/A	N/A
F - A140 North	0.83	0.32	0.96	1.41	1.46			N/A	N/A

Existing Layout - 2025 - Forecast Background flows + SEP or DEP in Isolation , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A140 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	F - A140 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D5 - 2025 - Forecast Background flows + SEP or DEP in Isolation , AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
6	A47 / A140 / Markshall Farm Road	Large Roundabout		A, B, C, D, E, F	3.13	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	82	B - Markshall Farm Road

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A - A47 Westbound	1466	89.30
B - Markshall Farm Road	1892	20.15
C - A140 South	649	28.20
D - A47 Eastbound	965	93.30
E - Unnamed Road	1711	29.90
F - A140 North	858	27.28

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)	Results for central hour only	Run automatically
D5	2025 - Forecast Background flows + SEP or DEP in Isolation	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 Westbound		ONE HOUR	✓	440	100.000
B - Markshall Farm Road		ONE HOUR	✓	93	100.000
C - A140 South		ONE HOUR	✓	878	100.000
D - A47 Eastbound		ONE HOUR	✓	449	100.000
E - Unnamed Road		ONE HOUR	✓	4	100.000
F - A140 North		ONE HOUR	✓	609	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	1	5	321	0	3	110
	B - Markshall Farm Road	4	0	5	61	0	23
	C - A140 South	261	9	0	323	4	281
	D - A47 Eastbound	1	17	267	0	5	159
	E - Unnamed Road	1	0	2	0	0	1
	F - A140 North	136	18	315	135	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	0	0	6	0	0	5
	B - Markshall Farm Road	0	0	0	2	0	0
	C - A140 South	9	0	0	9	0	6
	D - A47 Eastbound	0	0	14	0	40	5
	E - Unnamed Road	0	0	0	0	0	100
	F - A140 North	3	0	5	6	40	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 Westbound	0.29	3.03	0.4	1.3	A	440	440
B - Markshall Farm Road	0.12	4.86	0.1	0.5	A	93	93
C - A140 South	0.44	2.87	0.8	2.3	A	878	878
D - A47 Eastbound	0.31	3.24	0.4	1.7	A	449	449
E - Unnamed Road	0.00	0.00	0.0	-1	A	0	0
F - A140 North	0.38	3.25	0.6	2.8	A	609	609

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	396	99	688	1797	0.220	395	362	0.2	0.3	2.569	A
B - Markshall Farm Road	84	21	1039	969	0.086	84	44	0.1	0.1	4.066	A
C - A140 South	789	197	307	2284	0.346	789	816	0.4	0.5	2.408	A
D - A47 Eastbound	404	101	630	1716	0.235	403	466	0.2	0.3	2.742	A
E - Unnamed Road	0	0	1018	1196	0.000	0	15	0.0	0.0	0.000	A
F - A140 North	547	137	503	1870	0.293	547	515	0.3	0.4	2.721	A

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	484	121	842	1674	0.289	484	443	0.3	0.4	3.023	A
B - Markshall Farm Road	102	26	1272	844	0.121	102	54	0.1	0.1	4.849	A
C - A140 South	967	242	376	2220	0.435	966	999	0.5	0.8	2.868	A
D - A47 Eastbound	494	124	771	1604	0.308	494	571	0.3	0.4	3.239	A
E - Unnamed Road	0	0	1246	1066	0.000	0	19	0.0	0.0	0.000	A
F - A140 North	671	168	616	1777	0.377	670	630	0.4	0.6	3.250	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	484	121	843	1673	0.290	484	444	0.4	0.4	3.027	A
B - Markshall Farm Road	102	26	1274	844	0.121	102	54	0.1	0.1	4.856	A
C - A140 South	967	242	377	2220	0.435	967	1000	0.8	0.8	2.871	A
D - A47 Eastbound	494	124	772	1604	0.308	494	571	0.4	0.4	3.244	A
E - Unnamed Road	0	0	1247	1065	0.000	0	19	0.0	0.0	0.000	A
F - A140 North	671	168	617	1776	0.377	671	631	0.6	0.6	3.254	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	396	99	690	1795	0.220	396	363	0.4	0.3	2.573	A
B - Markshall Farm Road	84	21	1041	968	0.086	84	44	0.1	0.1	4.075	A
C - A140 South	789	197	308	2283	0.346	790	817	0.8	0.5	2.414	A
D - A47 Eastbound	404	101	631	1715	0.235	404	467	0.4	0.3	2.748	A
E - Unnamed Road	0	0	1020	1195	0.000	0	15	0.0	0.0	0.000	A
F - A140 North	547	137	504	1869	0.293	548	516	0.6	0.4	2.726	A

Queue Variation Results for each time segment
06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.28	0.00	0.00	0.28	0.28			N/A	N/A
B - Markshall Farm Road	0.09	0.03	0.25	0.45	0.48			N/A	N/A
C - A140 South	0.53	0.06	0.63	1.33	1.41			N/A	N/A
D - A47 Eastbound	0.31	0.00	0.00	0.31	0.31			N/A	N/A
E - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
F - A140 North	0.41	0.00	0.00	0.41	0.41			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.41	0.03	0.25	0.45	0.48			N/A	N/A
B - Markshall Farm Road	0.14	0.03	0.26	0.46	0.49			N/A	N/A
C - A140 South	0.77	0.03	0.25	0.77	0.77			N/A	N/A
D - A47 Eastbound	0.44	0.03	0.25	0.45	0.48			N/A	N/A
E - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
F - A140 North	0.60	0.03	0.25	0.60	0.60			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.41	0.03	0.33	1.30	1.33			N/A	N/A
B - Markshall Farm Road	0.14	0.03	0.25	0.45	0.48			N/A	N/A
C - A140 South	0.77	0.03	0.28	0.77	2.32			N/A	N/A
D - A47 Eastbound	0.44	0.03	0.32	1.39	1.72			N/A	N/A
E - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
F - A140 North	0.60	0.03	0.29	1.31	2.80			N/A	N/A

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.28	0.00	0.00	0.28	0.28			N/A	N/A
B - Markshall Farm Road	0.10	0.00	0.00	0.10	0.10			N/A	N/A
C - A140 South	0.53	0.53	1.00	1.40	1.45			N/A	N/A
D - A47 Eastbound	0.31	0.00	0.00	0.31	0.31			N/A	N/A
E - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
F - A140 North	0.42	0.00	0.00	0.42	0.42			N/A	N/A

Existing Layout - 2025 - Forecast Background flows + SEP or DEP in Isolation , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A140 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	F - A140 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D6 - 2025 - Forecast Background flows + SEP or DEP in Isolation , PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
6	A47 / A140 / Markshall Farm Road	Large Roundabout		A, B, C, D, E, F	4.23	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	33	F - A140 North

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A - A47 Westbound	1466	89.30
B - Markshall Farm Road	1892	20.15
C - A140 South	649	28.20
D - A47 Eastbound	965	93.30
E - Unnamed Road	1711	29.90
F - A140 North	858	27.28

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)	Results for central hour only	Run automatically
D6	2025 - Forecast Background flows + SEP or DEP in Isolation	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 Westbound		ONE HOUR	✓	377	100.000
B - Markshall Farm Road		ONE HOUR	✓	95	100.000
C - A140 South		ONE HOUR	✓	987	100.000
D - A47 Eastbound		ONE HOUR	✓	597	100.000
E - Unnamed Road		ONE HOUR	✓	42	100.000
F - A140 North		ONE HOUR	✓	975	100.000

Origin-Destination Data

Demand (Veh/hr)

	To						
	A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North	
From							
A - A47 Westbound	2	2	237	0	2	134	
B - Markshall Farm Road	4	1	8	50	0	32	
C - A140 South	332	21	0	265	2	367	
D - A47 Eastbound	3	43	305	0	2	244	
E - Unnamed Road	6	0	21	1	0	14	
F - A140 North	202	29	494	245	5	0	

Vehicle Mix

Heavy Vehicle Percentages

	To						
	A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North	
From							
A - A47 Westbound	0	0	4	0	0	1	
B - Markshall Farm Road	0	0	0	0	0	0	
C - A140 South	4	0	0	3	0	2	
D - A47 Eastbound	0	0	4	0	0	1	
E - Unnamed Road	0	0	0	100	0	23	
F - A140 North	1	0	1	0	80	0	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 Westbound	0.29	3.59	0.4	1.4	A	377	377
B - Markshall Farm Road	0.14	5.81	0.2	0.5	A	95	95
C - A140 South	0.49	3.23	1.0	1.5	A	987	987
D - A47 Eastbound	0.42	3.93	0.7	3.0	A	597	597
E - Unnamed Road	0.05	3.73	0.0	0.5	A	42	42
F - A140 North	0.62	5.56	1.6	2.1	A	975	975

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	339	85	1046	1600	0.212	339	493	0.2	0.3	2.854	A
B - Markshall Farm Road	85	21	1298	875	0.098	85	86	0.1	0.1	4.561	A
C - A140 South	887	222	427	2290	0.387	887	956	0.5	0.6	2.563	A
D - A47 Eastbound	537	134	810	1722	0.312	536	504	0.3	0.5	3.033	A
E - Unnamed Road	38	9	1337	1196	0.032	38	10	0.0	0.0	3.106	A
F - A140 North	877	219	664	1841	0.476	875	710	0.6	0.9	3.721	A

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	415	104	1280	1421	0.292	415	603	0.3	0.4	3.576	A
B - Markshall Farm Road	105	26	1589	726	0.144	104	106	0.1	0.2	5.795	A
C - A140 South	1087	272	523	2202	0.494	1085	1170	0.6	1.0	3.220	A
D - A47 Eastbound	657	164	992	1573	0.418	656	616	0.5	0.7	3.922	A
E - Unnamed Road	46	12	1636	1012	0.046	46	12	0.0	0.0	3.728	A
F - A140 North	1073	268	813	1722	0.623	1071	870	0.9	1.6	5.500	A

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	415	104	1283	1418	0.293	415	604	0.4	0.4	3.586	A
B - Markshall Farm Road	105	26	1592	724	0.144	105	106	0.2	0.2	5.812	A
C - A140 South	1087	272	524	2201	0.494	1087	1173	1.0	1.0	3.231	A
D - A47 Eastbound	657	164	993	1572	0.418	657	618	0.7	0.7	3.935	A
E - Unnamed Road	46	12	1638	1010	0.046	46	12	0.0	0.0	3.733	A
F - A140 North	1073	268	814	1721	0.624	1073	871	1.6	1.6	5.556	A

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	339	85	1050	1596	0.212	339	495	0.4	0.3	2.867	A
B - Markshall Farm Road	85	21	1303	872	0.098	86	86	0.2	0.1	4.579	A
C - A140 South	887	222	429	2289	0.388	889	960	1.0	0.6	2.573	A
D - A47 Eastbound	537	134	812	1721	0.312	538	506	0.7	0.5	3.047	A
E - Unnamed Road	38	9	1340	1194	0.032	38	10	0.0	0.0	3.112	A
F - A140 North	877	219	665	1840	0.476	879	712	1.6	0.9	3.761	A

Queue Variation Results for each time segment
17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.27	0.00	0.00	0.27	0.27			N/A	N/A
B - Markshall Farm Road	0.11	0.00	0.00	0.11	0.11			N/A	N/A
C - A140 South	0.63	0.08	0.76	1.35	1.43			N/A	N/A
D - A47 Eastbound	0.45	0.00	0.00	0.45	0.45			N/A	N/A
E - Unnamed Road	0.03	0.03	0.25	0.45	0.48			N/A	N/A
F - A140 North	0.90	0.06	0.74	1.65	2.13			N/A	N/A

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.41	0.03	0.25	0.45	0.48			N/A	N/A
B - Markshall Farm Road	0.17	0.03	0.26	0.46	0.49			N/A	N/A
C - A140 South	0.97	0.03	0.25	0.97	0.97			N/A	N/A
D - A47 Eastbound	0.71	0.03	0.25	0.71	0.71			N/A	N/A
E - Unnamed Road	0.05	0.03	0.25	0.46	0.48			N/A	N/A
F - A140 North	1.63	0.03	0.26	1.63	1.63			N/A	N/A

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.41	0.03	0.33	1.31	1.35			N/A	N/A
B - Markshall Farm Road	0.17	0.03	0.25	0.45	0.48			N/A	N/A
C - A140 South	0.97	0.03	0.27	0.97	1.15			N/A	N/A
D - A47 Eastbound	0.72	0.03	0.29	1.06	2.96			N/A	N/A
E - Unnamed Road	0.05	0.00	0.00	0.05	0.05			N/A	N/A
F - A140 North	1.64	0.03	0.27	1.64	1.64			N/A	N/A

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.27	0.00	0.00	0.27	0.27			N/A	N/A
B - Markshall Farm Road	0.11	0.00	0.00	0.11	0.11			N/A	N/A
C - A140 South	0.64	0.55	1.00	1.40	1.45			N/A	N/A
D - A47 Eastbound	0.46	0.00	0.00	0.46	0.46			N/A	N/A
E - Unnamed Road	0.03	0.00	0.00	0.03	0.03			N/A	N/A
F - A140 North	0.92	0.19	0.97	1.43	1.43			N/A	N/A

Existing Layout - 2025 - Forecast Background flows + SEP and DEP, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A140 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	F - A140 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D7 - 2025 - Forecast Background flows + SEP and DEP, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
6	A47 / A140 / Markshall Farm Road	Large Roundabout		A, B, C, D, E, F	3.33	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	69	B - Markshall Farm Road

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A - A47 Westbound	1466	89.30
B - Markshall Farm Road	1892	20.15
C - A140 South	649	28.20
D - A47 Eastbound	965	93.30
E - Unnamed Road	1711	29.90
F - A140 North	858	27.28

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)	Results for central hour only	Run automatically
D7	2025 - Forecast Background flows + SEP and DEP	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 Westbound		ONE HOUR	✓	472	100.000
B - Markshall Farm Road		ONE HOUR	✓	93	100.000
C - A140 South		ONE HOUR	✓	898	100.000
D - A47 Eastbound		ONE HOUR	✓	477	100.000
E - Unnamed Road		ONE HOUR	✓	4	100.000
F - A140 North		ONE HOUR	✓	643	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	1	5	352	0	3	111
	B - Markshall Farm Road	4	0	5	61	0	23
	C - A140 South	264	9	0	340	4	281
	D - A47 Eastbound	1	17	292	0	5	162
	E - Unnamed Road	1	0	2	0	0	1
	F - A140 North	137	18	346	137	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	0	0	6	0	0	6
	B - Markshall Farm Road	0	0	0	2	0	0
	C - A140 South	10	0	0	11	0	6
	D - A47 Eastbound	0	0	16	0	40	7
	E - Unnamed Road	0	0	0	0	0	100
	F - A140 North	4	0	4	8	40	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 Westbound	0.32	3.30	0.5	1.9	A	472	472
B - Markshall Farm Road	0.13	5.27	0.1	0.5	A	93	93
C - A140 South	0.45	2.99	0.8	2.0	A	898	898
D - A47 Eastbound	0.33	3.44	0.5	2.2	A	477	477
E - Unnamed Road	0.00	0.00	0.0	-1	A	0	0
F - A140 North	0.41	3.50	0.7	2.8	A	643	643

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	424	106	740	1742	0.244	424	366	0.2	0.3	2.732	A
B - Markshall Farm Road	84	21	1120	922	0.091	84	44	0.1	0.1	4.295	A
C - A140 South	807	202	310	2255	0.358	807	894	0.4	0.6	2.484	A
D - A47 Eastbound	429	107	633	1683	0.255	428	483	0.3	0.3	2.868	A
E - Unnamed Road	0	0	1047	1174	0.000	0	15	0.0	0.0	0.000	A
F - A140 North	578	145	528	1837	0.315	578	518	0.3	0.5	2.859	A

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	520	130	906	1610	0.323	519	448	0.3	0.5	3.299	A
B - Markshall Farm Road	102	26	1371	787	0.130	102	54	0.1	0.1	5.258	A
C - A140 South	989	247	379	2191	0.451	988	1094	0.6	0.8	2.988	A
D - A47 Eastbound	525	131	775	1572	0.334	525	592	0.3	0.5	3.434	A
E - Unnamed Road	0	0	1281	1038	0.000	0	19	0.0	0.0	0.000	A
F - A140 North	708	177	647	1738	0.407	707	635	0.5	0.7	3.488	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	520	130	907	1609	0.323	520	448	0.5	0.5	3.305	A
B - Markshall Farm Road	102	26	1373	786	0.130	102	54	0.1	0.1	5.267	A
C - A140 South	989	247	380	2191	0.451	989	1095	0.8	0.8	2.994	A
D - A47 Eastbound	525	131	776	1572	0.334	525	592	0.5	0.5	3.439	A
E - Unnamed Road	0	0	1283	1037	0.000	0	19	0.0	0.0	0.000	A
F - A140 North	708	177	647	1737	0.407	708	635	0.7	0.7	3.496	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	424	106	742	1740	0.244	425	366	0.5	0.3	2.737	A
B - Markshall Farm Road	84	21	1123	920	0.091	84	44	0.1	0.1	4.304	A
C - A140 South	807	202	311	2254	0.358	808	896	0.8	0.6	2.491	A
D - A47 Eastbound	429	107	635	1682	0.255	429	484	0.5	0.3	2.876	A
E - Unnamed Road	0	0	1049	1172	0.000	0	15	0.0	0.0	0.000	A
F - A140 North	578	145	529	1836	0.315	579	519	0.7	0.5	2.865	A

Queue Variation Results for each time segment

06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.32	0.00	0.00	0.32	0.32			N/A	N/A
B - Markshall Farm Road	0.10	0.00	0.00	0.10	0.10			N/A	N/A
C - A140 South	0.56	0.07	0.71	1.34	1.42			N/A	N/A
D - A47 Eastbound	0.34	0.00	0.00	0.34	0.34			N/A	N/A
E - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
F - A140 North	0.46	0.00	0.00	0.46	0.46			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.47	0.03	0.25	0.47	0.48			N/A	N/A
B - Markshall Farm Road	0.15	0.03	0.26	0.46	0.49			N/A	N/A
C - A140 South	0.82	0.03	0.25	0.82	0.82			N/A	N/A
D - A47 Eastbound	0.50	0.03	0.25	0.50	0.50			N/A	N/A
E - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
F - A140 North	0.68	0.03	0.25	0.68	0.68			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.48	0.03	0.32	1.43	1.93			N/A	N/A
B - Markshall Farm Road	0.15	0.03	0.25	0.45	0.48			N/A	N/A
C - A140 South	0.82	0.03	0.27	0.82	1.97			N/A	N/A
D - A47 Eastbound	0.50	0.03	0.31	1.44	2.18			N/A	N/A
E - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
F - A140 North	0.69	0.03	0.28	1.01	2.83			N/A	N/A

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.32	0.00	0.00	0.32	0.32			N/A	N/A
B - Markshall Farm Road	0.10	0.00	0.00	0.10	0.10			N/A	N/A
C - A140 South	0.56	0.55	1.00	1.40	1.45			N/A	N/A
D - A47 Eastbound	0.34	0.00	0.00	0.34	0.34			N/A	N/A
E - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
F - A140 North	0.46	0.00	0.00	0.46	0.46			N/A	N/A

Existing Layout - 2025 - Forecast Background flows + SEP and DEP , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A140 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	F - A140 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D8 - 2025 - Forecast Background flows + SEP and DEP , PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
6	A47 / A140 / Markshall Farm Road	Large Roundabout		A, B, C, D, E, F	4.63	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	28	F - A140 North

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A - A47 Westbound	1466	89.30
B - Markshall Farm Road	1892	20.15
C - A140 South	649	28.20
D - A47 Eastbound	965	93.30
E - Unnamed Road	1711	29.90
F - A140 North	858	27.28

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)	Results for central hour only	Run automatically
D8	2025 - Forecast Background flows + SEP and DEP	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 Westbound		ONE HOUR	✓	381	100.000
B - Markshall Farm Road		ONE HOUR	✓	95	100.000
C - A140 South		ONE HOUR	✓	1075	100.000
D - A47 Eastbound		ONE HOUR	✓	617	100.000
E - Unnamed Road		ONE HOUR	✓	42	100.000
F - A140 North		ONE HOUR	✓	979	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	2	2	240	0	2	135
	B - Markshall Farm Road	4	1	8	50	0	32
	C - A140 South	363	21	0	291	2	398
	D - A47 Eastbound	3	43	322	0	2	247
	E - Unnamed Road	6	0	21	1	0	14
	F - A140 North	203	29	494	248	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	0	0	6	0	0	2
	B - Markshall Farm Road	0	0	0	0	0	0
	C - A140 South	4	0	0	6	0	2
	D - A47 Eastbound	0	0	7	0	0	2
	E - Unnamed Road	0	0	0	100	0	23
	F - A140 North	2	0	1	2	80	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 Westbound	0.30	3.76	0.4	1.6	A	381	381
B - Markshall Farm Road	0.15	6.03	0.2	0.5	A	95	95
C - A140 South	0.54	3.61	1.2	1.5	A	1075	1075
D - A47 Eastbound	0.46	4.45	0.8	2.8	A	617	617
E - Unnamed Road	0.05	4.00	0.1	0.5	A	42	42
F - A140 North	0.65	6.13	1.8	2.6	A	979	979

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	343	86	1064	1561	0.219	342	522	0.2	0.3	2.954	A
B - Markshall Farm Road	85	21	1320	856	0.100	85	86	0.1	0.1	4.668	A
C - A140 South	966	242	431	2270	0.426	966	974	0.5	0.7	2.758	A
D - A47 Eastbound	555	139	867	1647	0.337	554	530	0.4	0.5	3.293	A
E - Unnamed Road	38	9	1411	1144	0.033	38	10	0.0	0.0	3.252	A
F - A140 North	880	220	707	1793	0.491	879	742	0.6	1.0	3.932	A

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	419	105	1301	1379	0.304	419	638	0.3	0.4	3.747	A
B - Markshall Farm Road	105	26	1615	704	0.149	104	105	0.1	0.2	6.005	A
C - A140 South	1184	296	527	2180	0.543	1182	1192	0.7	1.2	3.599	A
D - A47 Eastbound	679	170	1061	1490	0.456	678	648	0.5	0.8	4.425	A
E - Unnamed Road	46	12	1727	948	0.049	46	12	0.0	0.1	3.991	A
F - A140 North	1078	269	865	1666	0.647	1075	908	1.0	1.8	6.055	A

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	419	105	1305	1377	0.305	419	640	0.4	0.4	3.760	A
B - Markshall Farm Road	105	26	1618	702	0.149	105	106	0.2	0.2	6.030	A
C - A140 South	1184	296	528	2179	0.543	1184	1195	1.2	1.2	3.614	A
D - A47 Eastbound	679	170	1062	1489	0.456	679	650	0.8	0.8	4.446	A
E - Unnamed Road	46	12	1730	946	0.049	46	12	0.1	0.1	3.999	A
F - A140 North	1078	269	866	1664	0.648	1078	909	1.8	1.8	6.134	A

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	343	86	1069	1557	0.220	343	524	0.4	0.3	2.969	A
B - Markshall Farm Road	85	21	1325	854	0.100	86	87	0.2	0.1	4.691	A
C - A140 South	966	242	433	2268	0.426	968	978	1.2	0.7	2.772	A
D - A47 Eastbound	555	139	869	1645	0.337	556	532	0.8	0.5	3.309	A
E - Unnamed Road	38	9	1415	1142	0.033	38	10	0.1	0.0	3.260	A
F - A140 North	880	220	709	1791	0.491	883	744	1.8	1.0	3.980	A

Queue Variation Results for each time segment

17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.28	0.00	0.00	0.28	0.28			N/A	N/A
B - Markshall Farm Road	0.11	0.00	0.00	0.11	0.11			N/A	N/A
C - A140 South	0.74	0.07	0.76	1.24	1.24			N/A	N/A
D - A47 Eastbound	0.51	0.05	0.50	1.30	1.40			N/A	N/A
E - Unnamed Road	0.03	0.03	0.25	0.45	0.48			N/A	N/A
F - A140 North	0.96	0.06	0.71	1.84	2.59			N/A	N/A

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.43	0.03	0.25	0.45	0.48			N/A	N/A
B - Markshall Farm Road	0.17	0.03	0.26	0.46	0.49			N/A	N/A
C - A140 South	1.18	0.03	0.26	1.18	1.18			N/A	N/A
D - A47 Eastbound	0.83	0.03	0.25	0.83	0.83			N/A	N/A
E - Unnamed Road	0.05	0.03	0.25	0.46	0.48			N/A	N/A
F - A140 North	1.80	0.03	0.27	1.80	1.80			N/A	N/A

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.44	0.03	0.33	1.37	1.60			N/A	N/A
B - Markshall Farm Road	0.17	0.03	0.25	0.45	0.48			N/A	N/A
C - A140 South	1.18	0.03	0.26	1.18	1.18			N/A	N/A
D - A47 Eastbound	0.83	0.03	0.28	0.83	2.83			N/A	N/A
E - Unnamed Road	0.05	0.00	0.00	0.05	0.05			N/A	N/A
F - A140 North	1.82	0.03	0.27	1.82	1.82			N/A	N/A

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 Westbound	0.28	0.00	0.00	0.28	0.28			N/A	N/A
B - Markshall Farm Road	0.11	0.00	0.00	0.11	0.11			N/A	N/A
C - A140 South	0.75	0.55	1.00	1.40	1.45			N/A	N/A
D - A47 Eastbound	0.51	0.51	1.00	1.40	1.45			N/A	N/A
E - Unnamed Road	0.03	0.00	0.00	0.03	0.03			N/A	N/A
F - A140 North	0.97	0.14	0.98	1.37	1.73			N/A	N/A

Junctions 9
ARCADY 9 - Roundabout Module
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Filename: Junction 7 - Existing Layout - Construction Peaks - Capped.j9
Path: C:\Users\921707\Box\PB8164 Equinor DOW SS Ext\PB8164 Team\PB8164 Technical Data\E08 Transport\TD\Calcs\Modelling\J7
Report generation date: 14/04/2023 11:21:59

- » Existing Layout - 2021 - Construction Peak - Baseline, AM
- » Existing Layout - 2021 - Construction Peak - Baseline, PM
- » Existing Layout - 2025 - Forecast Background Flows, AM
- » Existing Layout - 2025 - Forecast Background Flows, PM
- » Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation (Capped), AM
- » Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation (Capped), PM
- » Existing Layout - 2025 - Forecast Background Flows + SEP and DEP Together (Capped), AM
- » Existing Layout - 2025 - Forecast Background Flows + SEP and DEP Together (Capped), PM

Summary of junction performance

	AM								PM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Existing Layout - 2021 - Construction Peak - Baseline																
A - A47 East	20.2	74.0	78.27	0.99	F	76.83	F	-9 % [A - A47 East]	111.1	177.2	396.25	1.19	F	217.54	F	-24 % [A - A47 East]
B - Norwich Road	0.3	1.3	6.80	0.24	A				0.2	0.5	6.14	0.17	A			
C - A47 West	26.6	85.5	85.51	1.01	F				3.0	12.3	12.21	0.75	B			
Existing Layout - 2025 - Forecast Background Flows																
A - A47 East	46.5	101.2	153.25	1.07	F	152.85	F	-16 % [A - A47 East]	187.2	200.0	658.57	1.30	F	360.03	F	-30 % [A - A47 East]
B - Norwich Road	0.3	1.5	7.10	0.26	A				0.2	0.9	6.24	0.18	A			
C - A47 West	62.6	121.2	173.04	1.09	F				4.4	22.3	16.67	0.82	C			
Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation (Capped)																
A - A47 East	68.0	122.6	232.99	1.12	F	317.89	F	-23 % [C - A47 West]	310.7	310.7	1057.92	1.43	F	591.28	F	-37 % [A - A47 East]
B - Norwich Road	0.3	1.5	7.13	0.26	A				0.2	1.0	6.30	0.19	A			
C - A47 West	131.3	200.0	423.42	1.21	F				5.6	28.6	20.96	0.86	C			
Existing Layout - 2025 - Forecast Background Flows + SEP and DEP Together (Capped)																
A - A47 East	73.0	127.9	256.18	1.13	F	399.62	F	-26 % [C - A47 West]	369.3	192.0	1247.50	1.49	F	706.27	F	-39 % [A - A47 East]
B - Norwich Road	0.3	1.0	7.14	0.26	A				0.2	1.0	6.32	0.19	A			
C - A47 West	172.7	200.0	555.39	1.27	F				5.9	30.1	22.01	0.87	C			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

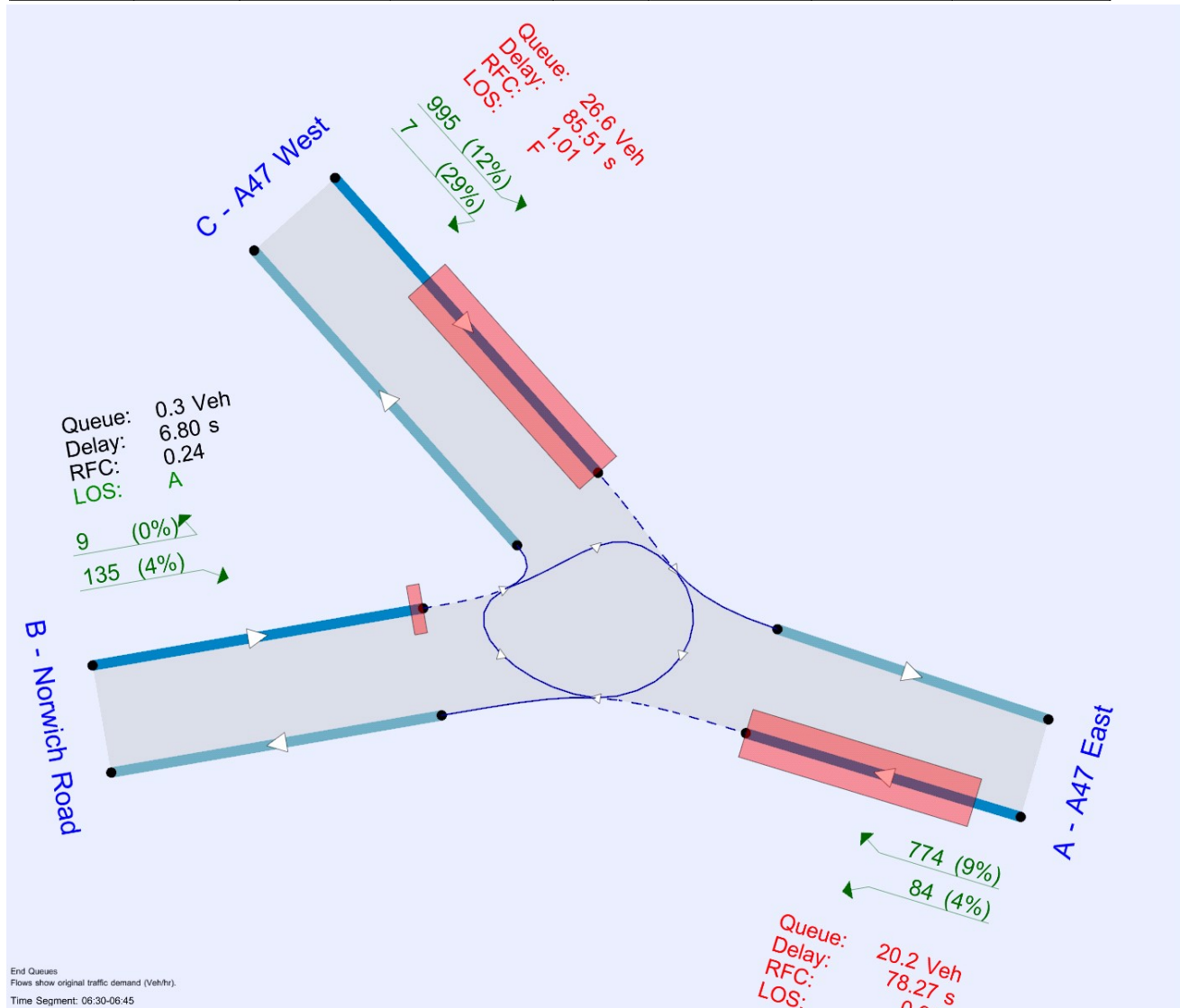
File summary

File Description

Title	Junction 7
Location	A47 / Norwich Road
Site number	7
Date	16/03/2022
Version	1
Status	Existing Layout
Identifier	
Client	Equinor
Jobnumber	PB8164
Enumerator	CORPORATEROOT\304111
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓		✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021 - Construction Peak - Baseline	AM	ONE HOUR	06:15	07:45	15	✓	✓
D2	2021 - Construction Peak - Baseline	PM	ONE HOUR	17:10	18:40	15	✓	✓
D3	2025 - Forecast Background Flows	AM	ONE HOUR	06:15	07:45	15	✓	✓
D4	2025 - Forecast Background Flows	PM	ONE HOUR	17:10	18:40	15	✓	✓
D7	2025 - Forecast Background Flows + SEP or DEP in Isolation (Capped)	AM	ONE HOUR	06:15	07:45	15	✓	✓
D8	2025 - Forecast Background Flows + SEP or DEP in Isolation (Capped)	PM	ONE HOUR	17:10	18:40	15	✓	✓
D11	2025 - Forecast Background Flows + SEP and DEP Together (Capped)	AM	ONE HOUR	06:15	07:45	15	✓	✓
D12	2025 - Forecast Background Flows + SEP and DEP Together (Capped)	PM	ONE HOUR	17:10	18:40	15	✓	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A7	Existing Layout	✓	100.000	100.000

Existing Layout - 2021 - Construction Peak - Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D1 - 2021 - Construction Peak - Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
7	A47 / Norwich Road	Standard Roundabout		A, B, C	76.83	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-9	A - A47 East

Arms

Arms

Arm	Name	Description
A	A47 East	
B	Norwich Road	
C	A47 West	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - A47 East	3.00	3.49	10.9	18.4	50.0	28.0	
B - Norwich Road	2.84	5.21	7.1	15.5	50.0	26.0	
C - A47 West	4.27	4.93	1.0	18.2	50.0	38.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A47 East	0.485	1042
B - Norwich Road	0.515	1208
C - A47 West	0.526	1314

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)	Results for central hour only	Run automatically
D1	2021 - Construction Peak - Baseline	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 East		ONE HOUR	✓	858	100.000
B - Norwich Road		ONE HOUR	✓	149	100.000
C - A47 West		ONE HOUR	✓	1004	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A47 East	B - Norwich Road	C - A47 West
A - A47 East	0	84	774
B - Norwich Road	135	5	9
C - A47 West	995	7	2

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A47 East	B - Norwich Road	C - A47 West
A - A47 East	0	4	9
B - Norwich Road	4	100	0
C - A47 West	12	29	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 East	0.99	78.27	20.2	74.0	F	858	858
B - Norwich Road	0.24	6.80	0.3	1.3	A	149	149
C - A47 West	1.01	85.51	26.6	85.5	F	1004	1004

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	771	193	13	953	0.810	764	1008	2.0	3.9	18.368	C
B - Norwich Road	134	33	691	769	0.174	134	86	0.2	0.2	5.666	A
C - A47 West	903	226	126	1108	0.815	895	699	2.0	4.0	16.238	C

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	945	236	15	951	0.993	901	1187	3.9	14.7	49.718	E
B - Norwich Road	164	41	815	704	0.233	164	101	0.2	0.3	6.664	A
C - A47 West	1105	276	154	1094	1.011	1048	825	4.0	18.3	50.568	F

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	945	236	15	951	0.994	923	1211	14.7	20.2	78.275	F
B - Norwich Road	164	41	835	693	0.237	164	103	0.3	0.3	6.800	A
C - A47 West	1105	276	154	1094	1.011	1072	844	18.3	26.6	85.515	F

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	771	193	13	952	0.810	833	1102	20.2	4.8	38.628	E
B - Norwich Road	134	33	753	736	0.182	134	93	0.3	0.2	5.985	A
C - A47 West	903	226	126	1108	0.815	989	761	26.6	5.0	41.496	E

Queue Variation Results for each time segment
06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	3.86	0.08	1.19	10.06	14.62			N/A	N/A
B - Norwich Road	0.21	0.00	0.00	0.21	0.21			N/A	N/A
C - A47 West	4.02	0.07	1.47	10.78	16.02			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	14.69	0.34	8.28	36.04	48.81			N/A	N/A
B - Norwich Road	0.30	0.03	0.25	0.46	0.48			N/A	N/A
C - A47 West	18.28	0.80	11.82	42.35	55.70			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	20.16	0.24	9.53	52.82	74.03			N/A	N/A
B - Norwich Road	0.31	0.03	0.31	1.06	1.33			N/A	N/A
C - A47 West	26.57	0.77	16.22	64.01	85.51			N/A	N/A

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	4.85	0.05	0.46	13.70	24.77			N/A	N/A
B - Norwich Road	0.22	0.00	0.00	0.22	0.22			N/A	N/A
C - A47 West	5.02	0.05	0.45	14.16	25.74			N/A	N/A

Existing Layout - 2021 - Construction Peak - Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2021 - Construction Peak - Baseline, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
7	A47 / Norwich Road	Standard Roundabout		A, B, C	217.54	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-24	A - A47 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D2	2021 - Construction Peak - Baseline	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 East		ONE HOUR	✓	1082	100.000
B - Norwich Road		ONE HOUR	✓	109	100.000
C - A47 West		ONE HOUR	✓	820	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A47 East	B - Norwich Road	C - A47 West
From	A - A47 East	3	117	962
	B - Norwich Road	98	2	9
	C - A47 West	807	11	2

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A47 East	B - Norwich Road	C - A47 West
A - A47 East	0	1	4
B - Norwich Road	2	100	0
C - A47 West	5	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 East	1.19	396.25	111.1	177.2	F	1082	1082
B - Norwich Road	0.17	6.14	0.2	0.5	A	109	109
C - A47 West	0.75	12.21	3.0	12.3	B	820	820

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	973	243	13	999	0.974	938	814	4.0	12.7	43.406	E
B - Norwich Road	98	24	838	733	0.134	98	113	0.1	0.2	5.664	A
C - A47 West	737	184	92	1207	0.611	735	844	1.0	1.5	7.590	A

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1191	298	16	997	1.195	992	994	12.7	62.4	147.987	F
B - Norwich Road	120	30	887	708	0.170	120	122	0.2	0.2	6.120	A
C - A47 West	903	226	113	1197	0.754	897	894	1.5	2.9	11.804	B

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1191	298	17	997	1.195	996	999	62.4	111.1	321.421	F
B - Norwich Road	120	30	891	706	0.170	120	122	0.2	0.2	6.142	A
C - A47 West	903	226	113	1197	0.755	903	898	2.9	3.0	12.210	B

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	973	243	14	999	0.974	990	822	111.1	106.8	396.251	F
B - Norwich Road	98	24	885	709	0.138	98	119	0.2	0.2	5.892	A
C - A47 West	737	184	93	1207	0.611	743	890	3.0	1.6	7.842	A

Queue Variation Results for each time segment

17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	12.71	0.36	7.41	30.53	40.98			N/A	N/A
B - Norwich Road	0.15	0.00	0.00	0.15	0.15			N/A	N/A
C - A47 West	1.54	0.06	0.86	3.60	5.17			N/A	N/A

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	62.42	27.98	58.80	94.42	106.57			N/A	N/A
B - Norwich Road	0.20	0.03	0.26	0.46	0.49			N/A	N/A
C - A47 West	2.92	0.03	0.30	2.92	12.34			N/A	N/A

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	111.12	61.30	107.20	155.74	171.73			N/A	N/A
B - Norwich Road	0.20	0.03	0.26	0.47	0.49			N/A	N/A
C - A47 West	2.99	0.03	0.28	2.99	5.44			N/A	N/A

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	106.79	51.35	101.63	158.15	177.23			N/A	N/A
B - Norwich Road	0.16	0.00	0.00	0.16	0.16			N/A	N/A
C - A47 West	1.60	0.06	0.78	3.87	5.73			N/A	N/A

Existing Layout - 2025 - Forecast Background Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D3 - 2025 - Forecast Background Flows, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
7	A47 / Norwich Road	Standard Roundabout		A, B, C	152.85	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-16	A - A47 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D3	2025 - Forecast Background Flows	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 East		ONE HOUR	✓	925	100.000
B - Norwich Road		ONE HOUR	✓	160	100.000
C - A47 West		ONE HOUR	✓	1082	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A47 East	B - Norwich Road	C - A47 West
A - A47 East	0	91	834
B - Norwich Road	145	5	10
C - A47 West	1072	8	2

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A47 East	B - Norwich Road	C - A47 West
A - A47 East	0	4	9
B - Norwich Road	4	100	0
C - A47 West	12	29	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 East	1.07	153.25	46.5	101.2	F	925	925
B - Norwich Road	0.26	7.10	0.3	1.5	A	160	160
C - A47 West	1.09	173.04	62.6	121.2	F	1082	1082

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	832	208	13	952	0.874	819	1080	2.6	5.7	24.933	C
B - Norwich Road	144	36	740	743	0.194	144	92	0.2	0.2	6.005	A
C - A47 West	973	243	135	1104	0.881	958	749	2.6	6.1	22.713	C

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1018	255	15	950	1.072	929	1221	5.7	28.0	79.247	F
B - Norwich Road	176	44	840	690	0.255	176	105	0.2	0.3	6.990	A
C - A47 West	1191	298	165	1089	1.094	1072	851	6.1	36.1	83.585	F

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1018	255	16	950	1.072	944	1235	28.0	46.5	153.245	F
B - Norwich Road	176	44	853	683	0.258	176	106	0.3	0.3	7.100	A
C - A47 West	1191	298	165	1089	1.094	1085	864	36.1	62.6	173.045	F

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	832	208	15	951	0.874	931	1207	46.5	21.6	135.789	F
B - Norwich Road	144	36	841	689	0.209	144	104	0.3	0.3	6.607	A
C - A47 West	973	243	135	1104	0.881	1087	850	62.6	34.1	162.671	F

Queue Variation Results for each time segment

06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	5.72	0.13	2.55	14.37	20.02			N/A	N/A
B - Norwich Road	0.24	0.00	0.00	0.24	0.24			N/A	N/A
C - A47 West	6.13	0.12	2.53	15.78	22.31			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	27.99	5.12	23.42	52.71	63.90			N/A	N/A
B - Norwich Road	0.34	0.03	0.25	0.46	0.48			N/A	N/A
C - A47 West	36.05	9.38	31.68	63.46	75.19			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	46.51	10.65	40.24	84.59	101.19			N/A	N/A
B - Norwich Road	0.34	0.03	0.32	1.18	1.47			N/A	N/A
C - A47 West	62.57	20.69	56.88	104.27	121.19			N/A	N/A

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	21.62	2.05	16.58	44.54	55.80			N/A	N/A
B - Norwich Road	0.27	0.00	0.00	0.27	0.27			N/A	N/A
C - A47 West	34.07	9.62	30.23	58.67	69.04			N/A	N/A

Existing Layout - 2025 - Forecast Background Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D4 - 2025 - Forecast Background Flows, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
7	A47 / Norwich Road	Standard Roundabout		A, B, C	360.03	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-30	A - A47 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D4	2025 - Forecast Background Flows	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 East		ONE HOUR	✓	1167	100.000
B - Norwich Road		ONE HOUR	✓	118	100.000
C - A47 West		ONE HOUR	✓	885	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A47 East	B - Norwich Road	C - A47 West
A - A47 East	3	126	1038
B - Norwich Road	106	2	10
C - A47 West	871	12	2

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A47 East	B - Norwich Road	C - A47 West
A - A47 East	0	1	4
B - Norwich Road	2	100	0
C - A47 West	5	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 East	1.30	658.57	187.2	200.0	F	1167	1167
B - Norwich Road	0.18	6.24	0.2	0.9	A	118	118
C - A47 West	0.82	16.67	4.4	22.3	C	885	885

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1049	262	14	993	1.056	969	878	6.1	26.0	73.245	F
B - Norwich Road	106	27	867	717	0.148	106	117	0.1	0.2	5.889	A
C - A47 West	796	199	99	1199	0.663	793	873	1.2	1.9	8.796	A

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1285	321	17	992	1.296	990	1069	26.0	99.7	238.092	F
B - Norwich Road	130	32	885	707	0.184	130	122	0.2	0.2	6.233	A
C - A47 West	974	244	121	1188	0.820	965	894	1.9	4.2	15.573	C

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1285	321	18	991	1.296	991	1078	99.7	173.1	501.758	F
B - Norwich Road	130	32	886	707	0.184	130	122	0.2	0.2	6.241	A
C - A47 West	974	244	121	1188	0.820	974	895	4.2	4.4	16.672	C

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1049	262	15	993	1.056	993	890	173.1	187.2	658.571	F
B - Norwich Road	106	27	887	706	0.150	106	120	0.2	0.2	6.002	A
C - A47 West	796	199	100	1199	0.664	805	894	4.4	2.0	9.339	A

Queue Variation Results for each time segment

17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	26.02	0.46	14.63	64.84	88.13			N/A	N/A
B - Norwich Road	0.17	0.00	0.00	0.17	0.17			N/A	N/A
C - A47 West	1.92	0.06	0.81	4.86	7.30			N/A	N/A

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	99.70	45.66	94.36	150.26	169.26			N/A	N/A
B - Norwich Road	0.22	0.03	0.26	0.46	0.48			N/A	N/A
C - A47 West	4.18	0.03	0.33	7.93	22.28			N/A	N/A

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	173.11	>199	>199	>199	>199			N/A	N/A
B - Norwich Road	0.22	0.03	0.27	0.49	0.92			N/A	N/A
C - A47 West	4.35	0.03	0.29	4.35	15.71			N/A	N/A

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	187.21	>199	>199	>199	>199			N/A	N/A
B - Norwich Road	0.18	0.00	0.00	0.18	0.18			N/A	N/A
C - A47 West	2.03	0.05	0.48	5.47	8.80			N/A	N/A

Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation (Capped), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D7 - 2025 - Forecast Background Flows + SEP or DEP in Isolation (Capped), AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
7	A47 / Norwich Road	Standard Roundabout		A, B, C	317.89	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-23	C - A47 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D7	2025 - Forecast Background Flows + SEP or DEP in Isolation (Capped)	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 East		ONE HOUR	✓	957	100.000
B - Norwich Road		ONE HOUR	✓	160	100.000
C - A47 West		ONE HOUR	✓	1202	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A47 East	B - Norwich Road	C - A47 West
From	A - A47 East	0	91	866
	B - Norwich Road	145	5	10
	C - A47 West	1192	8	2

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A47 East	B - Norwich Road	C - A47 West
A - A47 East	0	4	10
B - Norwich Road	4	100	0
C - A47 West	12	29	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 East	1.12	232.99	68.0	122.6	F	957	957
B - Norwich Road	0.26	7.13	0.3	1.5	A	160	160
C - A47 West	1.21	423.42	131.3	200.0	F	1202	1202

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	860	215	13	941	0.914	842	1163	3.0	7.6	31.475	D
B - Norwich Road	144	36	764	727	0.198	144	91	0.2	0.2	6.166	A
C - A47 West	1081	270	135	1106	0.977	1042	773	3.9	13.6	41.283	E

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1054	263	15	940	1.121	928	1237	7.6	39.0	104.044	F
B - Norwich Road	176	44	842	685	0.257	176	101	0.2	0.3	7.065	A
C - A47 West	1323	331	165	1090	1.214	1086	853	13.6	72.9	154.073	F

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1054	263	15	940	1.121	938	1240	39.0	68.0	215.592	F
B - Norwich Road	176	44	850	681	0.259	176	102	0.3	0.3	7.132	A
C - A47 West	1323	331	165	1090	1.214	1090	861	72.9	131.3	343.367	F

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	860	215	14	941	0.914	927	1219	68.0	51.3	232.987	F
B - Norwich Road	144	36	841	686	0.210	144	100	0.3	0.3	6.649	A
C - A47 West	1081	270	135	1105	0.978	1097	850	131.3	127.2	423.418	F

Queue Variation Results for each time segment

06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	7.63	0.24	4.25	18.16	24.46			N/A	N/A
B - Norwich Road	0.24	0.00	0.00	0.24	0.24			N/A	N/A
C - A47 West	13.63	0.35	7.80	33.10	44.64			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	39.00	12.51	35.21	65.10	75.82			N/A	N/A
B - Norwich Road	0.34	0.03	0.25	0.46	0.48			N/A	N/A
C - A47 West	72.91	35.33	69.31	107.33	120.15			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	68.02	27.07	63.26	107.26	122.56			N/A	N/A
B - Norwich Road	0.35	0.03	0.32	1.19	1.50			N/A	N/A
C - A47 West	131.34	>199	>199	>199	>199			N/A	N/A

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	51.31	20.24	47.59	80.89	92.51			N/A	N/A
B - Norwich Road	0.27	0.00	0.00	0.27	0.27			N/A	N/A
C - A47 West	127.24	>199	>199	>199	>199			N/A	N/A

Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation (Capped), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D8 - 2025 - Forecast Background Flows + SEP or DEP in Isolation (Capped), PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
7	A47 / Norwich Road	Standard Roundabout		A, B, C	591.28	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-37	A - A47 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D8	2025 - Forecast Background Flows + SEP or DEP in Isolation (Capped)	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 East		ONE HOUR	✓	1287	100.000
B - Norwich Road		ONE HOUR	✓	118	100.000
C - A47 West		ONE HOUR	✓	917	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A47 East	B - Norwich Road	C - A47 West
From	A - A47 East	3	126	1158
	B - Norwich Road	106	2	10
	C - A47 West	903	12	2

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A47 East	B - Norwich Road	C - A47 West
A - A47 East	0	1	5
B - Norwich Road	2	100	0
C - A47 West	6	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 East	1.43	1057.92	310.7	310.7	F	1287	1287
B - Norwich Road	0.19	6.30	0.2	1.0	A	118	118
C - A47 West	0.86	20.96	5.6	28.6	C	917	917

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1157	289	14	991	1.167	985	906	12.5	55.4	136.182	F
B - Norwich Road	106	27	891	704	0.151	106	109	0.1	0.2	6.022	A
C - A47 West	824	206	99	1188	0.694	821	897	1.3	2.2	9.712	A

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1417	354	17	990	1.432	989	1101	55.4	162.3	403.476	F
B - Norwich Road	130	32	895	702	0.185	130	112	0.2	0.2	6.295	A
C - A47 West	1010	252	121	1177	0.858	997	903	2.2	5.3	18.845	C

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1417	354	18	990	1.432	989	1112	162.3	269.2	789.955	F
B - Norwich Road	130	32	895	701	0.185	130	112	0.2	0.2	6.298	A
C - A47 West	1010	252	121	1177	0.858	1008	903	5.3	5.6	20.959	C

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1157	289	15	991	1.167	991	922	269.2	310.7	1057.922	F
B - Norwich Road	106	27	896	701	0.151	106	110	0.2	0.2	6.058	A
C - A47 West	824	206	100	1188	0.694	837	903	5.6	2.3	10.624	B

Queue Variation Results for each time segment

17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	55.37	>199	>199	>199	>199			N/A	N/A
B - Norwich Road	0.18	0.00	0.00	0.18	0.18			N/A	N/A
C - A47 West	2.19	0.06	0.83	5.73	8.69			N/A	N/A

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	162.30	>199	>199	>199	>199			N/A	N/A
B - Norwich Road	0.23	0.03	0.25	0.46	0.48			N/A	N/A
C - A47 West	5.28	0.04	0.38	13.04	28.60			N/A	N/A

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	269.19	>199	>199	>199	>199			N/A	N/A
B - Norwich Road	0.23	0.03	0.28	0.50	0.97			N/A	N/A
C - A47 West	5.60	0.03	0.31	6.48	26.44			N/A	N/A

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	310.66	>199	>199	>199	>199			N/A	N/A
B - Norwich Road	0.18	0.00	0.00	0.18	0.18			N/A	N/A
C - A47 West	2.35	0.04	0.45	6.47	10.96			N/A	N/A

Existing Layout - 2025 - Forecast Background Flows + SEP and DEP Together (Capped), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D11 - 2025 - Forecast Background Flows + SEP and DEP Together (Capped), AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
7	A47 / Norwich Road	Standard Roundabout		A, B, C	399.62	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-26	C - A47 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D11	2025 - Forecast Background Flows + SEP and DEP Together (Capped)	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 East		ONE HOUR	✓	964	100.000
B - Norwich Road		ONE HOUR	✓	160	100.000
C - A47 West		ONE HOUR	✓	1257	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A - A47 East	B - Norwich Road	C - A47 West	
From	A - A47 East	0	91	873
	B - Norwich Road	145	5	10
	C - A47 West	1247	8	2

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A47 East	B - Norwich Road	C - A47 West
A - A47 East	0	4	11
B - Norwich Road	4	100	0
C - A47 West	12	29	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 East	1.13	256.18	73.0	127.9	F	964	964
B - Norwich Road	0.26	7.14	0.3	1.0	A	160	160
C - A47 West	1.27	555.39	172.7	200.0	F	1257	1257

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	867	217	13	939	0.923	847	1190	3.1	8.2	33.223	D
B - Norwich Road	144	36	768	723	0.199	144	91	0.2	0.2	6.205	A
C - A47 West	1130	283	135	1108	1.020	1068	777	4.8	20.3	54.801	F

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1061	265	14	938	1.132	927	1241	8.2	41.7	110.162	F
B - Norwich Road	176	44	842	684	0.257	176	100	0.2	0.3	7.081	A
C - A47 West	1384	346	165	1092	1.267	1090	853	20.3	93.7	197.782	F

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1061	265	14	938	1.132	936	1243	41.7	73.0	230.479	F
B - Norwich Road	176	44	849	680	0.259	176	101	0.3	0.3	7.142	A
C - A47 West	1384	346	165	1092	1.267	1092	860	93.7	166.7	433.926	F

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	867	217	13	939	0.923	926	1228	73.0	58.2	256.177	F
B - Norwich Road	144	36	840	685	0.210	144	99	0.3	0.3	6.663	A
C - A47 West	1130	283	135	1107	1.020	1106	849	166.7	172.7	555.387	F

Queue Variation Results for each time segment

06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	8.17	0.27	4.67	19.32	25.90			N/A	N/A
B - Norwich Road	0.25	0.00	0.00	0.25	0.25			N/A	N/A
C - A47 West	20.30	0.54	12.14	49.04	65.72			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	41.65	14.40	37.97	68.15	78.87			N/A	N/A
B - Norwich Road	0.34	0.03	0.25	0.46	0.48			N/A	N/A
C - A47 West	93.71	47.57	89.63	135.79	151.24			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	73.04	31.12	68.49	112.69	127.92			N/A	N/A
B - Norwich Road	0.35	0.03	0.32	1.01	1.01			N/A	N/A
C - A47 West	166.72	>199	>199	>199	>199			N/A	N/A

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	58.21	23.27	54.12	91.54	104.57			N/A	N/A
B - Norwich Road	0.27	0.00	0.00	0.27	0.27			N/A	N/A
C - A47 West	172.69	>199	>199	>199	>199			N/A	N/A

Existing Layout - 2025 - Forecast Background Flows + SEP and DEP Together (Capped), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D12 - 2025 - Forecast Background Flows + SEP and DEP Together (Capped), PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
7	A47 / Norwich Road	Standard Roundabout		A, B, C	706.27	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-39	A - A47 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D12	2025 - Forecast Background Flows + SEP and DEP Together (Capped)	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 East		ONE HOUR	✓	1342	100.000
B - Norwich Road		ONE HOUR	✓	118	100.000
C - A47 West		ONE HOUR	✓	924	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A - A47 East	B - Norwich Road	C - A47 West	
From	A - A47 East	3	126	1213
	B - Norwich Road	106	2	10
	C - A47 West	910	12	2

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A47 East	B - Norwich Road	C - A47 West
A - A47 East	0	1	5
B - Norwich Road	2	100	0
C - A47 West	6	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 East	1.49	1247.50	369.3	192.0	F	1342	1342
B - Norwich Road	0.19	6.32	0.2	1.0	A	118	118
C - A47 West	0.87	22.01	5.9	30.1	C	924	924

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1206	302	14	992	1.216	989	912	17.6	72.0	174.159	F
B - Norwich Road	106	27	898	700	0.151	106	105	0.1	0.2	6.055	A
C - A47 West	831	208	99	1187	0.700	827	905	1.4	2.3	9.900	A

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1478	369	17	990	1.492	990	1108	72.0	193.8	490.031	F
B - Norwich Road	130	32	899	699	0.186	130	108	0.2	0.2	6.317	A
C - A47 West	1017	254	121	1176	0.865	1004	908	2.3	5.5	19.595	C

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1478	369	18	990	1.492	990	1119	193.8	315.7	930.674	F
B - Norwich Road	130	32	899	699	0.186	130	108	0.2	0.2	6.320	A
C - A47 West	1017	254	121	1176	0.865	1016	908	5.5	5.9	22.005	C

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 East	1206	302	15	992	1.216	992	930	315.7	369.3	1247.495	F
B - Norwich Road	106	27	901	699	0.152	106	106	0.2	0.2	6.078	A
C - A47 West	831	208	99	1187	0.700	845	907	5.9	2.4	10.917	B

Queue Variation Results for each time segment

17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	71.98	>199	>199	>199	>199			N/A	N/A
B - Norwich Road	0.18	0.00	0.00	0.18	0.18			N/A	N/A
C - A47 West	2.25	0.06	0.84	5.89	8.96			N/A	N/A

17:40 - 17:55

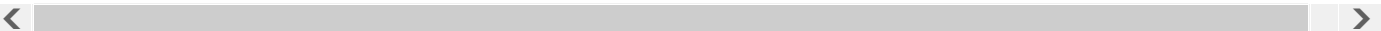
Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	193.84	>199	>199	>199	>199			N/A	N/A
B - Norwich Road	0.23	0.03	0.25	0.46	0.48			N/A	N/A
C - A47 West	5.54	0.04	0.39	14.25	30.05			N/A	N/A

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	315.68	>199	>199	>199	>199			N/A	N/A
B - Norwich Road	0.23	0.03	0.28	0.50	0.99			N/A	N/A
C - A47 West	5.92	0.03	0.32	7.83	28.89			N/A	N/A

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A47 East	369.32	>199	>199	>199	>199			N/A	N/A
B - Norwich Road	0.18	0.00	0.00	0.18	0.18			N/A	N/A
C - A47 West	2.42	0.04	0.44	6.66	11.42			N/A	N/A



<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
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Filename: Junction 8 - Existing Layout - Construction Peaks.j9

Path: C:\Users\921707\Box\PB8164 Equinor DOW SS Ext\PB8164 Team\PB8164 Technical Data\E08
Transport\TD\Calcs\Modelling\J8

Report generation date: 03/05/2023 15:05:09

-
- »Baseline - 2021 - Construction Peak - Baseline , AM
 - »Baseline - 2021 - Construction Peak - Baseline , PM
 - »Baseline - 2025 - Forecast Background Flows, AM
 - »Baseline - 2025 - Forecast Background Flows, PM
 - »Baseline - 2025 - Forecast Background Flows + SEP or DEP in Isolation, AM
 - »Baseline - 2025 - Forecast Background Flows + SEP or DEP in Isolation, PM
 - »Baseline - 2025 - Forecast Background Flows + SEP and DEP , AM
 - »Baseline - 2025 - Forecast Background Flows + SEP and DEP , PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Baseline - 2021 - Construction Peak - Baseline														
A - A1074	0.8	2.91	0.45	A	2.94	A	78 % [A - A1074]	1.6	4.33	0.61	A	5.29	A	23 % [D - A47 North]
C - Unnamed Road	0.4	2.58	0.26	A				1.8	5.62	0.64	A			
D - A47 North	0.3	2.97	0.22	A				0.8	7.21	0.44	A			
E - William Frost Way	0.6	3.25	0.37	A				1.7	5.37	0.63	A			
Baseline - 2025 - Forecast Background Flows														
A - A1074	1.0	3.21	0.50	A	3.18	A	65 % [A - A1074]	2.1	5.37	0.68	A	6.70	A	14 % [D - A47 North]
C - Unnamed Road	0.4	2.67	0.29	A				2.4	7.00	0.71	A			
D - A47 North	0.3	3.15	0.25	A				1.2	9.98	0.54	A			
E - William Frost Way	0.7	3.54	0.41	A				2.3	6.78	0.70	A			
Baseline - 2025 - Forecast Background Flows + SEP or DEP in Isolation														
A - A1074	1.0	3.30	0.51	A	3.22	A	62 % [A - A1074]	2.1	5.32	0.67	A	6.95	A	12 % [D - A47 North]
C - Unnamed Road	0.4	2.67	0.29	A				2.5	7.19	0.72	A			
D - A47 North	0.3	3.15	0.25	A				1.3	10.89	0.58	B			
E - William Frost Way	0.7	3.54	0.41	A				2.4	7.11	0.71	A			
Baseline - 2025 - Forecast Background Flows + SEP and DEP														
A - A1074	1.1	3.32	0.52	A	3.23	A	61 % [A - A1074]	2.1	5.33	0.68	A	7.03	A	12 % [D - A47 North]
C - Unnamed Road	0.4	2.68	0.29	A				2.5	7.28	0.72	A			
D - A47 North	0.3	3.15	0.25	A				1.4	11.11	0.58	B			
E - William Frost Way	0.7	3.54	0.41	A				2.4	7.22	0.71	A			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

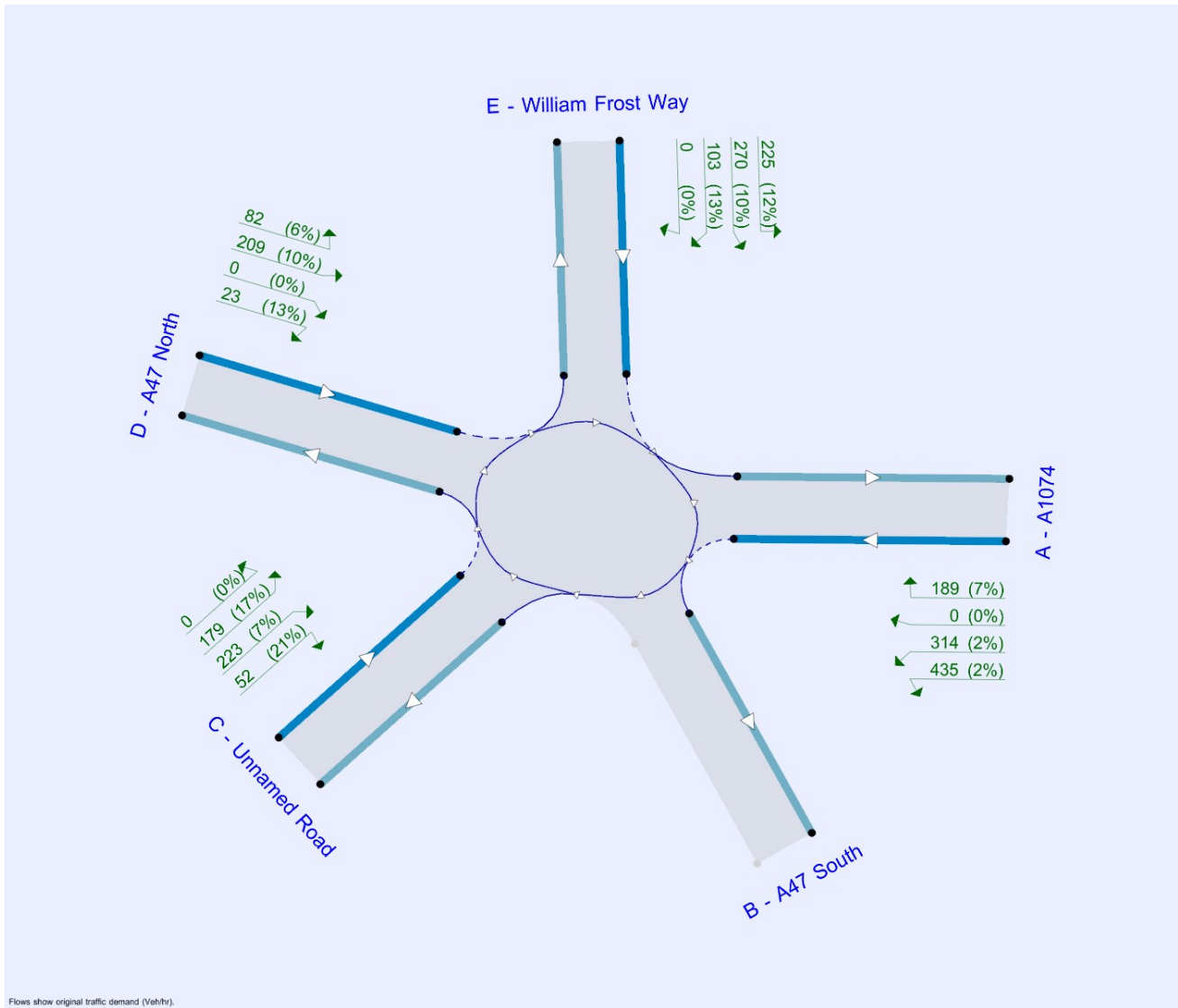
File summary

File Description

Title	Junction 8
Location	A1074 / A47 / William Frost Way
Site number	8
Date	16/03/2022
Version	1
Status	Existing Layout
Identifier	
Client	Equinor
Jobnumber	PB8164
Enumerator	CORPORATEROOT\921707
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓		✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021 - Construction Peak - Baseline	AM	ONE HOUR	06:15	07:45	15	✓	✓
D2	2021 - Construction Peak - Baseline	PM	ONE HOUR	17:10	18:40	15	✓	✓
D3	2025 - Forecast Background Flows	AM	ONE HOUR	06:15	07:45	15	✓	✓
D4	2025 - Forecast Background Flows	PM	ONE HOUR	17:10	18:40	15	✓	✓
D5	2025 - Forecast Background Flows + SEP or DEP in Isolation	AM	ONE HOUR	06:15	07:45	15	✓	✓
D6	2025 - Forecast Background Flows + SEP or DEP in Isolation	PM	ONE HOUR	17:10	18:40	15	✓	✓
D7	2025 - Forecast Background Flows + SEP and DEP	AM	ONE HOUR	06:15	07:45	15	✓	✓
D8	2025 - Forecast Background Flows + SEP and DEP	PM	ONE HOUR	17:10	18:40	15	✓	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A8	Baseline	✓	100.000	100.000

Baseline - 2021 - Construction Peak - Baseline , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D1 - 2021 - Construction Peak - Baseline , AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
8	A47 / A1074 / William Frost Way	Standard Roundabout		A, B, C, D, E	2.94	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	78	A - A1074

Arms

Arms

Arm	Name	Description
A	A1074	
B	A47 South	
C	Unnamed Road	
D	A47 North	
E	William Frost Way	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - A1074	5.99	10.00	29.7	22.1	49.8	16.0	
B - A47 South							✓
C - Unnamed Road	5.46	10.19	13.8	20.0	49.8	35.0	
D - A47 North	6.69	9.22	1.9	25.0	46.4	16.5	
E - William Frost Way	7.34	8.07	1.2	18.0	49.7	11.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A1074	0.834	2805
B - A47 South		
C - Unnamed Road	0.718	2297
D - A47 North	0.755	2298
E - William Frost Way	0.767	2436

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)	Results for central hour only	Run automatically
D1	2021 - Construction Peak - Baseline	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A1074		ONE HOUR	✓	938	100.000
B - A47 South					
C - Unnamed Road		ONE HOUR	✓	454	100.000
D - A47 North		ONE HOUR	✓	314	100.000
E - William Frost Way		ONE HOUR	✓	601	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A - A1074	B - A47 South	C - Unnamed Road	D - A47 North	E - William Frost Way
From	A - A1074	0	435	314	0	189
	B - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	C - Unnamed Road	223	52	0	0	179
	D - A47 North	209	0	23	0	82
	E - William Frost Way	225	270	103	0	3

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A - A1074	B - A47 South	C - Unnamed Road	D - A47 North	E - William Frost Way
From	A - A1074	0	2	2	0	7
	B - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	C - Unnamed Road	7	21	0	0	17
	D - A47 North	10	0	13	0	6
	E - William Frost Way	12	10	13	0	67

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A1074	0.45	2.91	0.8	2.0	A	938	938
B - A47 South							
C - Unnamed Road	0.26	2.58	0.4	1.4	A	454	454
D - A47 North	0.22	2.97	0.3	1.2	A	314	314
E - William Frost Way	0.37	3.25	0.6	2.8	A	601	601

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	843	211	405	2353	0.358	843	590	0.4	0.6	2.383	A
B - A47 South			568				680				
C - Unnamed Road	408	102	172	1921	0.213	408	395	0.2	0.3	2.379	A
D - A47 North	282	71	580	1658	0.170	282	0	0.2	0.2	2.617	A
E - William Frost Way	540	135	456	1846	0.293	540	407	0.3	0.4	2.757	A

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	1033	258	496	2271	0.455	1032	723	0.6	0.8	2.903	A
B - A47 South			695				833				
C - Unnamed Road	500	125	211	1894	0.264	500	484	0.3	0.4	2.581	A
D - A47 North	346	86	711	1557	0.222	345	0	0.2	0.3	2.970	A
E - William Frost Way	662	165	558	1768	0.374	661	498	0.4	0.6	3.250	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	1033	258	497	2270	0.455	1033	723	0.8	0.8	2.908	A
B - A47 South			696				833				
C - Unnamed Road	500	125	211	1894	0.264	500	484	0.4	0.4	2.582	A
D - A47 North	346	86	711	1557	0.222	346	0	0.3	0.3	2.971	A
E - William Frost Way	662	165	558	1768	0.374	662	499	0.6	0.6	3.253	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	843	211	406	2352	0.358	844	591	0.8	0.6	2.388	A
B - A47 South			569				681				
C - Unnamed Road	408	102	173	1920	0.213	408	396	0.4	0.3	2.383	A
D - A47 North	282	71	581	1657	0.170	283	0	0.3	0.2	2.621	A
E - William Frost Way	540	135	456	1845	0.293	541	408	0.6	0.4	2.761	A

Queue Variation Results for each time segment

06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	0.56	0.07	0.70	1.34	1.42			N/A	N/A
B - A47 South									
C - Unnamed Road	0.27	0.00	0.00	0.27	0.27			N/A	N/A
D - A47 North	0.20	0.00	0.00	0.20	0.20			N/A	N/A
E - William Frost Way	0.41	0.00	0.00	0.41	0.41			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	0.83	0.03	0.25	0.83	0.83			N/A	N/A
B - A47 South									
C - Unnamed Road	0.36	0.03	0.25	0.45	0.48			N/A	N/A
D - A47 North	0.28	0.03	0.25	0.45	0.48			N/A	N/A
E - William Frost Way	0.59	0.03	0.25	0.59	0.59			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	0.83	0.03	0.27	0.83	1.95			N/A	N/A
B - A47 South									
C - Unnamed Road	0.36	0.03	0.33	1.18	1.43			N/A	N/A
D - A47 North	0.28	0.03	0.29	0.81	1.16			N/A	N/A
E - William Frost Way	0.60	0.03	0.29	1.30	2.77			N/A	N/A

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	0.56	0.55	1.00	1.40	1.45			N/A	N/A
B - A47 South									
C - Unnamed Road	0.27	0.00	0.00	0.27	0.27			N/A	N/A
D - A47 North	0.21	0.00	0.00	0.21	0.21			N/A	N/A
E - William Frost Way	0.42	0.00	0.00	0.42	0.42			N/A	N/A

Baseline - 2021 - Construction Peak - Baseline , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2021 - Construction Peak - Baseline , PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
8	A47 / A1074 / William Frost Way	Standard Roundabout		A, B, C, D, E	5.29	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	23	D - A47 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D2	2021 - Construction Peak - Baseline	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A1074		ONE HOUR	✓	1181	100.000
B - A47 South					
C - Unnamed Road		ONE HOUR	✓	1048	100.000
D - A47 North		ONE HOUR	✓	359	100.000
E - William Frost Way		ONE HOUR	✓	1027	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A - A1074	B - A47 South	C - Unnamed Road	D - A47 North	E - William Frost Way
From	A - A1074	2	260	355	0	564
	B - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	C - Unnamed Road	409	133	0	0	506
	D - A47 North	169	2	5	0	183
	E - William Frost Way	480	322	206	0	19

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A - A1074	B - A47 South	C - Unnamed Road	D - A47 North	E - William Frost Way
From	A - A1074	0	1	2	0	1
	B - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	C - Unnamed Road	2	8	0	0	0
	D - A47 North	2	0	20	0	3
	E - William Frost Way	0	1	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A1074	0.61	4.33	1.6	2.2	A	1181	1181
B - A47 South							
C - Unnamed Road	0.64	5.62	1.8	2.7	A	1048	1048
D - A47 North	0.44	7.21	0.8	3.7	A	359	359
E - William Frost Way	0.63	5.37	1.7	2.3	A	1027	1027

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	1062	265	617	2250	0.472	1061	952	0.6	0.9	3.024	A
B - A47 South			1034				644				
C - Unnamed Road	942	236	525	1878	0.502	941	508	0.7	1.0	3.836	A
D - A47 North	323	81	1466	1143	0.282	322	0	0.3	0.4	4.383	A
E - William Frost Way	923	231	646	1916	0.482	922	1142	0.6	0.9	3.617	A

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	1300	325	754	2134	0.609	1298	1164	0.9	1.5	4.304	A
B - A47 South			1265				788				
C - Unnamed Road	1154	288	643	1795	0.643	1151	622	1.0	1.8	5.565	A
D - A47 North	395	99	1794	898	0.440	394	0	0.4	0.8	7.125	A
E - William Frost Way	1131	283	790	1803	0.627	1128	1397	0.9	1.7	5.311	A

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	1300	325	756	2132	0.610	1300	1167	1.5	1.6	4.325	A
B - A47 South			1267				789				
C - Unnamed Road	1154	288	644	1794	0.643	1154	623	1.8	1.8	5.624	A
D - A47 North	395	99	1798	894	0.442	395	0	0.8	0.8	7.213	A
E - William Frost Way	1131	283	793	1801	0.628	1131	1400	1.7	1.7	5.372	A

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	1062	265	620	2247	0.472	1064	956	1.6	0.9	3.048	A
B - A47 South			1037				646				
C - Unnamed Road	942	236	527	1877	0.502	945	510	1.8	1.0	3.877	A
D - A47 North	323	81	1472	1138	0.284	324	0	0.8	0.4	4.432	A
E - William Frost Way	923	231	650	1913	0.483	926	1147	1.7	0.9	3.659	A

Queue Variation Results for each time segment

17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	0.89	0.06	0.70	1.66	2.18			N/A	N/A
B - A47 South									
C - Unnamed Road	1.00	0.06	0.72	1.92	2.75			N/A	N/A
D - A47 North	0.39	0.00	0.00	0.39	0.39			N/A	N/A
E - William Frost Way	0.92	0.06	0.73	1.73	2.35			N/A	N/A

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	1.54	0.03	0.26	1.54	1.54			N/A	N/A
B - A47 South									
C - Unnamed Road	1.77	0.03	0.26	1.77	1.77			N/A	N/A
D - A47 North	0.78	0.03	0.26	0.78	0.78			N/A	N/A
E - William Frost Way	1.66	0.03	0.26	1.66	1.66			N/A	N/A

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	1.55	0.03	0.26	1.55	1.55			N/A	N/A
B - A47 South									
C - Unnamed Road	1.79	0.03	0.26	1.79	1.79			N/A	N/A
D - A47 North	0.79	0.03	0.30	1.49	3.73			N/A	N/A
E - William Frost Way	1.67	0.03	0.26	1.67	1.67			N/A	N/A

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	0.90	0.42	0.99	1.43	1.48			N/A	N/A
B - A47 South									
C - Unnamed Road	1.02	0.17	1.01	1.44	1.76			N/A	N/A
D - A47 North	0.40	0.00	0.00	0.40	0.40			N/A	N/A
E - William Frost Way	0.94	0.20	0.98	1.50	1.50			N/A	N/A

Baseline - 2025 - Forecast Background Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D3 - 2025 - Forecast Background Flows, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
8	A47 / A1074 / William Frost Way	Standard Roundabout		A, B, C, D, E	3.18	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	65	A - A1074

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D3	2025 - Forecast Background Flows	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A1074		ONE HOUR	✓	1011	100.000
B - A47 South					
C - Unnamed Road		ONE HOUR	✓	489	100.000
D - A47 North		ONE HOUR	✓	338	100.000
E - William Frost Way		ONE HOUR	✓	647	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A - A1074	B - A47 South	C - Unnamed Road	D - A47 North	E - William Frost Way
From	A - A1074	0	469	338	0	204
	B - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	C - Unnamed Road	240	56	0	0	193
	D - A47 North	225	0	25	0	88
	E - William Frost Way	242	291	111	0	3

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A - A1074	B - A47 South	C - Unnamed Road	D - A47 North	E - William Frost Way
From	A - A1074	0	2	2	0	7
	B - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	C - Unnamed Road	7	21	0	0	17
	D - A47 North	10	0	13	0	6
	E - William Frost Way	12	10	13	0	67

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A1074	0.50	3.21	1.0	1.5	A	1011	1011
B - A47 South							
C - Unnamed Road	0.29	2.67	0.4	1.3	A	489	489
D - A47 North	0.25	3.15	0.3	1.3	A	338	338
E - William Frost Way	0.41	3.54	0.7	2.8	A	647	647

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	909	227	437	2326	0.391	908	635	0.5	0.6	2.538	A
B - A47 South			612				733				
C - Unnamed Road	440	110	186	1913	0.230	439	426	0.2	0.3	2.443	A
D - A47 North	304	76	625	1624	0.187	304	0	0.2	0.2	2.726	A
E - William Frost Way	582	145	491	1813	0.321	581	438	0.3	0.5	2.919	A

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	1113	278	534	2236	0.498	1112	778	0.6	1.0	3.196	A
B - A47 South			749				897				
C - Unnamed Road	538	135	228	1884	0.286	538	521	0.3	0.4	2.675	A
D - A47 North	372	93	766	1516	0.245	372	0	0.2	0.3	3.146	A
E - William Frost Way	712	178	601	1730	0.412	711	537	0.5	0.7	3.530	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	1113	278	535	2236	0.498	1113	778	1.0	1.0	3.205	A
B - A47 South			750				898				
C - Unnamed Road	538	135	228	1884	0.286	538	522	0.4	0.4	2.675	A
D - A47 North	372	93	766	1516	0.246	372	0	0.3	0.3	3.147	A
E - William Frost Way	712	178	601	1730	0.412	712	537	0.7	0.7	3.537	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	909	227	438	2325	0.391	910	636	1.0	0.6	2.549	A
B - A47 South			613				735				
C - Unnamed Road	440	110	186	1912	0.230	440	427	0.4	0.3	2.445	A
D - A47 North	304	76	626	1623	0.187	304	0	0.3	0.2	2.731	A
E - William Frost Way	582	145	491	1813	0.321	583	439	0.7	0.5	2.927	A

Queue Variation Results for each time segment
06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	0.64	0.08	0.76	1.36	1.43			N/A	N/A
B - A47 South									
C - Unnamed Road	0.30	0.00	0.00	0.30	0.30			N/A	N/A
D - A47 North	0.23	0.00	0.00	0.23	0.23			N/A	N/A
E - William Frost Way	0.47	0.00	0.00	0.47	0.47			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	0.98	0.03	0.25	0.98	0.98			N/A	N/A
B - A47 South									
C - Unnamed Road	0.40	0.03	0.25	0.45	0.48			N/A	N/A
D - A47 North	0.32	0.03	0.25	0.45	0.48			N/A	N/A
E - William Frost Way	0.70	0.03	0.25	0.70	0.70			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	0.99	0.03	0.27	0.99	1.01			N/A	N/A
B - A47 South									
C - Unnamed Road	0.40	0.03	0.33	1.30	1.34			N/A	N/A
D - A47 North	0.32	0.03	0.32	1.07	1.32			N/A	N/A
E - William Frost Way	0.70	0.03	0.28	0.91	2.78			N/A	N/A

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	0.64	0.55	1.00	1.40	1.45			N/A	N/A
B - A47 South									
C - Unnamed Road	0.30	0.00	0.00	0.30	0.30			N/A	N/A
D - A47 North	0.23	0.00	0.00	0.23	0.23			N/A	N/A
E - William Frost Way	0.47	0.00	0.00	0.47	0.47			N/A	N/A

Baseline - 2025 - Forecast Background Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D4 - 2025 - Forecast Background Flows, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
8	A47 / A1074 / William Frost Way	Standard Roundabout		A, B, C, D, E	6.70	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	14	D - A47 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D4	2025 - Forecast Background Flows	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A1074		ONE HOUR	✓	1275	100.000
B - A47 South					
C - Unnamed Road		ONE HOUR	✓	1131	100.000
D - A47 North		ONE HOUR	✓	387	100.000
E - William Frost Way		ONE HOUR	✓	1109	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A - A1074	B - A47 South	C - Unnamed Road	D - A47 North	E - William Frost Way
From	A - A1074	2	281	383	0	609
	B - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	C - Unnamed Road	441	144	0	0	546
	D - A47 North	182	2	5	0	198
	E - William Frost Way	518	348	222	0	21

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A - A1074	B - A47 South	C - Unnamed Road	D - A47 North	E - William Frost Way
From	A - A1074	0	1	2	0	1
	B - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	C - Unnamed Road	2	8	0	0	0
	D - A47 North	2	0	20	0	3
	E - William Frost Way	0	1	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A1074	0.68	5.37	2.1	3.6	A	1275	1275
B - A47 South							
C - Unnamed Road	0.71	7.00	2.4	4.2	A	1131	1131
D - A47 North	0.54	9.98	1.2	4.9	A	387	387
E - William Frost Way	0.70	6.78	2.3	3.8	A	1109	1109

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	1146	287	666	2201	0.521	1145	1026	0.7	1.1	3.404	A
B - A47 South			1115				696				
C - Unnamed Road	1017	254	567	1851	0.549	1015	548	0.8	1.2	4.300	A
D - A47 North	348	87	1583	1054	0.330	347	0	0.3	0.5	5.085	A
E - William Frost Way	997	249	696	1876	0.531	995	1233	0.7	1.1	4.081	A

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	1404	351	814	2076	0.676	1400	1253	1.1	2.1	5.290	A
B - A47 South			1363				850				
C - Unnamed Road	1245	311	694	1760	0.707	1241	670	1.2	2.4	6.869	A
D - A47 North	426	107	1935	791	0.539	423	0	0.5	1.1	9.723	A
E - William Frost Way	1221	305	851	1754	0.696	1217	1507	1.1	2.2	6.638	A

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	1404	351	817	2074	0.677	1404	1258	2.1	2.1	5.368	A
B - A47 South			1367				853				
C - Unnamed Road	1245	311	696	1759	0.708	1245	672	2.4	2.4	7.002	A
D - A47 North	426	107	1941	786	0.542	426	0	1.1	1.2	9.982	A
E - William Frost Way	1221	305	854	1751	0.697	1221	1513	2.2	2.3	6.780	A

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	1146	287	670	2197	0.522	1150	1033	2.1	1.1	3.449	A
B - A47 South			1121				700				
C - Unnamed Road	1017	254	570	1849	0.550	1021	550	2.4	1.2	4.376	A
D - A47 North	348	87	1591	1048	0.332	351	0	1.2	0.5	5.183	A
E - William Frost Way	997	249	701	1872	0.533	1001	1241	2.3	1.2	4.157	A

Queue Variation Results for each time segment
17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	1.08	0.05	0.52	2.45	3.61			N/A	N/A
B - A47 South									
C - Unnamed Road	1.21	0.05	0.55	2.81	4.18			N/A	N/A
D - A47 North	0.49	0.04	0.44	1.27	1.38			N/A	N/A
E - William Frost Way	1.12	0.05	0.56	2.57	3.76			N/A	N/A

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	2.05	0.03	0.27	2.05	2.05			N/A	N/A
B - A47 South									
C - Unnamed Road	2.36	0.03	0.27	2.36	3.44			N/A	N/A
D - A47 North	1.14	0.03	0.26	1.14	1.14			N/A	N/A
E - William Frost Way	2.24	0.03	0.27	2.24	2.61			N/A	N/A

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	2.07	0.03	0.26	2.07	2.07			N/A	N/A
B - A47 South									
C - Unnamed Road	2.39	0.03	0.27	2.39	2.39			N/A	N/A
D - A47 North	1.17	0.03	0.29	1.34	4.87			N/A	N/A
E - William Frost Way	2.27	0.03	0.27	2.27	2.27			N/A	N/A

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	1.10	0.15	1.05	1.66	1.93			N/A	N/A
B - A47 South									
C - Unnamed Road	1.23	0.09	1.04	2.19	2.88			N/A	N/A
D - A47 North	0.50	0.05	0.47	1.29	1.39			N/A	N/A
E - William Frost Way	1.15	0.10	1.02	1.89	2.52			N/A	N/A

Baseline - 2025 - Forecast Background Flows + SEP or DEP in Isolation, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D5 - 2025 - Forecast Background Flows + SEP or DEP in Isolation, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
8	A47 / A1074 / William Frost Way	Standard Roundabout		A, B, C, D, E	3.22	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	62	A - A1074

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D5	2025 - Forecast Background Flows + SEP or DEP in Isolation	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A1074		ONE HOUR	✓	1041	100.000
B - A47 South					
C - Unnamed Road		ONE HOUR	✓	489	100.000
D - A47 North		ONE HOUR	✓	338	100.000
E - William Frost Way		ONE HOUR	✓	647	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A - A1074	B - A47 South	C - Unnamed Road	D - A47 North	E - William Frost Way
From	A - A1074	0	479	358	0	204
	B - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	C - Unnamed Road	240	56	0	0	193
	D - A47 North	225	0	25	0	88
	E - William Frost Way	242	291	111	0	3

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A - A1074	B - A47 South	C - Unnamed Road	D - A47 North	E - William Frost Way
From	A - A1074	0	2	2	0	7
	B - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	C - Unnamed Road	7	21	0	0	17
	D - A47 North	10	0	13	0	6
	E - William Frost Way	12	10	13	0	67

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A1074	0.51	3.30	1.0	1.5	A	1041	1041
B - A47 South							
C - Unnamed Road	0.29	2.67	0.4	1.3	A	489	489
D - A47 North	0.25	3.15	0.3	1.3	A	338	338
E - William Frost Way	0.41	3.54	0.7	2.8	A	647	647

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	936	234	437	2326	0.402	935	635	0.5	0.7	2.586	A
B - A47 South			630				742				
C - Unnamed Road	440	110	186	1913	0.230	439	444	0.2	0.3	2.443	A
D - A47 North	304	76	625	1624	0.187	304	0	0.2	0.2	2.726	A
E - William Frost Way	582	145	491	1813	0.321	581	438	0.3	0.5	2.919	A

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	1146	287	534	2237	0.512	1145	778	0.7	1.0	3.291	A
B - A47 South			771				908				
C - Unnamed Road	538	135	228	1884	0.286	538	543	0.3	0.4	2.674	A
D - A47 North	372	93	766	1516	0.245	372	0	0.2	0.3	3.146	A
E - William Frost Way	712	178	601	1730	0.412	711	537	0.5	0.7	3.530	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	1146	287	535	2237	0.512	1146	778	1.0	1.0	3.300	A
B - A47 South			772				909				
C - Unnamed Road	538	135	228	1884	0.286	538	544	0.4	0.4	2.675	A
D - A47 North	372	93	766	1516	0.246	372	0	0.3	0.3	3.147	A
E - William Frost Way	712	178	601	1730	0.412	712	537	0.7	0.7	3.537	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	936	234	438	2325	0.402	937	636	1.0	0.7	2.597	A
B - A47 South			631				744				
C - Unnamed Road	440	110	186	1912	0.230	440	445	0.4	0.3	2.447	A
D - A47 North	304	76	626	1623	0.187	304	0	0.3	0.2	2.729	A
E - William Frost Way	582	145	491	1813	0.321	583	439	0.7	0.5	2.930	A

Queue Variation Results for each time segment

06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	0.67	0.08	0.76	1.37	1.45			N/A	N/A
B - A47 South									
C - Unnamed Road	0.30	0.00	0.00	0.30	0.30			N/A	N/A
D - A47 North	0.23	0.00	0.00	0.23	0.23			N/A	N/A
E - William Frost Way	0.47	0.00	0.00	0.47	0.47			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	1.04	0.03	0.25	1.04	1.04			N/A	N/A
B - A47 South									
C - Unnamed Road	0.40	0.03	0.25	0.45	0.48			N/A	N/A
D - A47 North	0.32	0.03	0.25	0.45	0.48			N/A	N/A
E - William Frost Way	0.70	0.03	0.25	0.70	0.70			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	1.05	0.03	0.27	1.05	1.32			N/A	N/A
B - A47 South									
C - Unnamed Road	0.40	0.03	0.33	1.30	1.34			N/A	N/A
D - A47 North	0.32	0.03	0.32	1.07	1.32			N/A	N/A
E - William Frost Way	0.70	0.03	0.28	0.91	2.78			N/A	N/A

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	0.68	0.55	1.00	1.40	1.45			N/A	N/A
B - A47 South									
C - Unnamed Road	0.30	0.00	0.00	0.30	0.30			N/A	N/A
D - A47 North	0.23	0.00	0.00	0.23	0.23			N/A	N/A
E - William Frost Way	0.47	0.00	0.00	0.47	0.47			N/A	N/A

Baseline - 2025 - Forecast Background Flows + SEP or DEP in Isolation, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - 2025 - Forecast Background Flows + SEP or DEP in Isolation, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
8	A47 / A1074 / William Frost Way	Standard Roundabout		A, B, C, D, E	6.95	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	12	D - A47 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D6	2025 - Forecast Background Flows + SEP or DEP in Isolation	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A1074		ONE HOUR	✓	1275	100.000
B - A47 South					
C - Unnamed Road		ONE HOUR	✓	1142	100.000
D - A47 North		ONE HOUR	✓	407	100.000
E - William Frost Way		ONE HOUR	✓	1109	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A - A1074	B - A47 South	C - Unnamed Road	D - A47 North	E - William Frost Way
From	A - A1074	2	281	383	0	609
	B - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	C - Unnamed Road	452	144	0	0	546
	D - A47 North	202	2	5	0	198
	E - William Frost Way	518	348	222	0	21

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A - A1074	B - A47 South	C - Unnamed Road	D - A47 North	E - William Frost Way
From	A - A1074	0	1	2	0	1
	B - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	C - Unnamed Road	2	8	0	0	0
	D - A47 North	2	0	20	0	3
	E - William Frost Way	0	1	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A1074	0.67	5.32	2.1	3.6	A	1275	1275
B - A47 South							
C - Unnamed Road	0.72	7.19	2.5	4.4	A	1142	1142
D - A47 North	0.58	10.89	1.3	5.3	B	407	407
E - William Frost Way	0.71	7.11	2.4	3.9	A	1109	1109

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	1146	287	666	2207	0.519	1145	1054	0.7	1.1	3.385	A
B - A47 South			1115				696				
C - Unnamed Road	1027	257	567	1849	0.555	1025	548	0.8	1.2	4.360	A
D - A47 North	366	91	1592	1049	0.349	365	0	0.3	0.5	5.259	A
E - William Frost Way	997	249	724	1856	0.537	995	1233	0.7	1.1	4.177	A

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	1404	351	814	2082	0.674	1400	1287	1.1	2.0	5.245	A
B - A47 South			1363				850				
C - Unnamed Road	1257	314	694	1759	0.715	1253	669	1.2	2.4	7.045	A
D - A47 North	448	112	1946	783	0.572	445	0	0.5	1.3	10.551	B
E - William Frost Way	1221	305	884	1730	0.706	1216	1507	1.1	2.3	6.949	A

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	1404	351	817	2080	0.675	1404	1292	2.0	2.1	5.322	A
B - A47 South			1367				853				
C - Unnamed Road	1257	314	696	1757	0.715	1257	672	2.4	2.5	7.193	A
D - A47 North	448	112	1953	778	0.576	448	0	1.3	1.3	10.889	B
E - William Frost Way	1221	305	888	1727	0.707	1221	1513	2.3	2.4	7.114	A

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	1146	287	670	2203	0.520	1150	1061	2.1	1.1	3.429	A
B - A47 South			1121				700				
C - Unnamed Road	1027	257	570	1847	0.556	1031	551	2.5	1.3	4.441	A
D - A47 North	366	91	1602	1042	0.351	369	0	1.3	0.5	5.375	A
E - William Frost Way	997	249	730	1851	0.539	1002	1241	2.4	1.2	4.260	A

Queue Variation Results for each time segment

17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	1.07	0.05	0.53	2.42	3.57			N/A	N/A
B - A47 South									
C - Unnamed Road	1.24	0.05	0.53	2.90	4.40			N/A	N/A
D - A47 North	0.53	0.05	0.53	1.31	1.40			N/A	N/A
E - William Frost Way	1.15	0.05	0.53	2.67	3.91			N/A	N/A

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	2.03	0.03	0.27	2.03	2.03			N/A	N/A
B - A47 South									
C - Unnamed Road	2.44	0.03	0.27	2.44	4.07			N/A	N/A
D - A47 North	1.30	0.03	0.27	1.30	1.30			N/A	N/A
E - William Frost Way	2.34	0.03	0.27	2.34	3.46			N/A	N/A

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	2.06	0.03	0.26	2.06	2.06			N/A	N/A
B - A47 South									
C - Unnamed Road	2.48	0.03	0.27	2.48	2.48			N/A	N/A
D - A47 North	1.33	0.03	0.29	1.33	5.33			N/A	N/A
E - William Frost Way	2.38	0.03	0.27	2.38	2.38			N/A	N/A

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	1.09	0.16	1.05	1.64	1.91			N/A	N/A
B - A47 South									
C - Unnamed Road	1.26	0.09	1.04	2.35	3.01			N/A	N/A
D - A47 North	0.55	0.05	0.57	1.31	1.41			N/A	N/A
E - William Frost Way	1.18	0.09	1.02	1.98	2.71			N/A	N/A

Baseline - 2025 - Forecast Background Flows + SEP and DEP , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D7 - 2025 - Forecast Background Flows + SEP and DEP , AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
8	A47 / A1074 / William Frost Way	Standard Roundabout		A, B, C, D, E	3.23	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	61	A - A1074

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D7	2025 - Forecast Background Flows + SEP and DEP	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A1074		ONE HOUR	✓	1048	100.000
B - A47 South					
C - Unnamed Road		ONE HOUR	✓	489	100.000
D - A47 North		ONE HOUR	✓	338	100.000
E - William Frost Way		ONE HOUR	✓	647	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A - A1074	B - A47 South	C - Unnamed Road	D - A47 North	E - William Frost Way
From	A - A1074	0	486	358	0	204
	B - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	C - Unnamed Road	240	56	0	0	193
	D - A47 North	225	0	25	0	88
	E - William Frost Way	242	291	111	0	3

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A - A1074	B - A47 South	C - Unnamed Road	D - A47 North	E - William Frost Way
From	A - A1074	0	2	2	0	7
	B - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	C - Unnamed Road	7	21	0	0	17
	D - A47 North	10	0	13	0	6
	E - William Frost Way	12	10	13	0	67

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A1074	0.52	3.32	1.1	1.5	A	1048	1048
B - A47 South							
C - Unnamed Road	0.29	2.68	0.4	1.3	A	489	489
D - A47 North	0.25	3.15	0.3	1.3	A	338	338
E - William Frost Way	0.41	3.54	0.7	2.8	A	647	647

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	942	236	437	2326	0.405	941	635	0.5	0.7	2.598	A
B - A47 South			630				748				
C - Unnamed Road	440	110	186	1911	0.230	439	444	0.2	0.3	2.446	A
D - A47 North	304	76	625	1624	0.187	304	0	0.2	0.2	2.726	A
E - William Frost Way	582	145	491	1813	0.321	581	438	0.3	0.5	2.920	A

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	1154	288	534	2237	0.516	1152	778	0.7	1.1	3.314	A
B - A47 South			771				916				
C - Unnamed Road	538	135	228	1882	0.286	538	543	0.3	0.4	2.678	A
D - A47 North	372	93	766	1516	0.246	372	0	0.2	0.3	3.147	A
E - William Frost Way	712	178	601	1730	0.412	711	537	0.5	0.7	3.532	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	1154	288	535	2237	0.516	1154	778	1.1	1.1	3.323	A
B - A47 South			772				917				
C - Unnamed Road	538	135	228	1882	0.286	538	544	0.4	0.4	2.678	A
D - A47 North	372	93	766	1515	0.246	372	0	0.3	0.3	3.148	A
E - William Frost Way	712	178	601	1729	0.412	712	537	0.7	0.7	3.538	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	942	236	438	2326	0.405	944	636	1.1	0.7	2.609	A
B - A47 South			631				750				
C - Unnamed Road	440	110	186	1911	0.230	440	445	0.4	0.3	2.448	A
D - A47 North	304	76	626	1623	0.187	304	0	0.3	0.2	2.730	A
E - William Frost Way	582	145	491	1812	0.321	583	439	0.7	0.5	2.928	A

Queue Variation Results for each time segment
06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	0.68	0.07	0.76	1.38	1.46			N/A	N/A
B - A47 South									
C - Unnamed Road	0.30	0.00	0.00	0.30	0.30			N/A	N/A
D - A47 North	0.23	0.00	0.00	0.23	0.23			N/A	N/A
E - William Frost Way	0.47	0.00	0.00	0.47	0.47			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	1.06	0.03	0.25	1.06	1.06			N/A	N/A
B - A47 South									
C - Unnamed Road	0.40	0.03	0.25	0.45	0.48			N/A	N/A
D - A47 North	0.32	0.03	0.25	0.45	0.48			N/A	N/A
E - William Frost Way	0.70	0.03	0.25	0.70	0.70			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	1.06	0.03	0.27	1.06	1.27			N/A	N/A
B - A47 South									
C - Unnamed Road	0.40	0.03	0.33	1.30	1.35			N/A	N/A
D - A47 North	0.32	0.03	0.32	1.07	1.32			N/A	N/A
E - William Frost Way	0.70	0.03	0.28	0.91	2.78			N/A	N/A

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	0.68	0.55	1.00	1.40	1.45			N/A	N/A
B - A47 South									
C - Unnamed Road	0.30	0.00	0.00	0.30	0.30			N/A	N/A
D - A47 North	0.23	0.00	0.00	0.23	0.23			N/A	N/A
E - William Frost Way	0.47	0.00	0.00	0.47	0.47			N/A	N/A

Baseline - 2025 - Forecast Background Flows + SEP and DEP , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D8 - 2025 - Forecast Background Flows + SEP and DEP , PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
8	A47 / A1074 / William Frost Way	Standard Roundabout		A, B, C, D, E	7.03	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	12	D - A47 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D8	2025 - Forecast Background Flows + SEP and DEP	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A1074		ONE HOUR	✓	1275	100.000
B - A47 South					
C - Unnamed Road		ONE HOUR	✓	1149	100.000
D - A47 North		ONE HOUR	✓	407	100.000
E - William Frost Way		ONE HOUR	✓	1109	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A - A1074	B - A47 South	C - Unnamed Road	D - A47 North	E - William Frost Way
From	A - A1074	2	281	383	0	609
	B - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	C - Unnamed Road	459	144	0	0	546
	D - A47 North	202	2	5	0	198
	E - William Frost Way	518	348	222	0	21

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A - A1074	B - A47 South	C - Unnamed Road	D - A47 North	E - William Frost Way
From	A - A1074	0	1	2	0	1
	B - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	C - Unnamed Road	2	8	0	0	0
	D - A47 North	2	0	20	0	3
	E - William Frost Way	0	1	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A1074	0.68	5.33	2.1	3.6	A	1275	1275
B - A47 South							
C - Unnamed Road	0.72	7.28	2.5	4.5	A	1149	1149
D - A47 North	0.58	11.11	1.4	5.4	B	407	407
E - William Frost Way	0.71	7.22	2.4	4.0	A	1109	1109

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	1146	287	666	2206	0.519	1145	1060	0.7	1.1	3.386	A
B - A47 South			1115				696				
C - Unnamed Road	1033	258	567	1851	0.558	1031	548	0.8	1.2	4.385	A
D - A47 North	366	91	1599	1043	0.351	365	0	0.3	0.5	5.306	A
E - William Frost Way	997	249	730	1849	0.539	995	1233	0.7	1.2	4.208	A

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	1404	351	814	2082	0.674	1400	1294	1.1	2.0	5.250	A
B - A47 South			1363				850				
C - Unnamed Road	1265	316	694	1760	0.719	1260	669	1.2	2.5	7.127	A
D - A47 North	448	112	1954	777	0.577	445	0	0.5	1.3	10.747	B
E - William Frost Way	1221	305	892	1722	0.709	1216	1507	1.2	2.4	7.048	A

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	1404	351	817	2079	0.675	1404	1300	2.0	2.1	5.327	A
B - A47 South			1367				853				
C - Unnamed Road	1265	316	696	1759	0.719	1265	672	2.5	2.5	7.283	A
D - A47 North	448	112	1961	772	0.581	448	0	1.3	1.4	11.106	B
E - William Frost Way	1221	305	896	1719	0.710	1221	1513	2.4	2.4	7.220	A

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A1074	1146	287	670	2203	0.520	1150	1068	2.1	1.1	3.431	A
B - A47 South			1121				700				
C - Unnamed Road	1033	258	570	1849	0.559	1038	551	2.5	1.3	4.466	A
D - A47 North	366	91	1608	1036	0.353	369	0	1.4	0.6	5.426	A
E - William Frost Way	997	249	736	1845	0.540	1002	1241	2.4	1.2	4.296	A

Queue Variation Results for each time segment
17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	1.07	0.05	0.53	2.42	3.57			N/A	N/A
B - A47 South									
C - Unnamed Road	1.25	0.05	0.51	2.95	4.50			N/A	N/A
D - A47 North	0.54	0.05	0.54	1.31	1.40			N/A	N/A
E - William Frost Way	1.16	0.05	0.52	2.70	3.97			N/A	N/A

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	2.03	0.03	0.27	2.03	2.03			N/A	N/A
B - A47 South									
C - Unnamed Road	2.49	0.03	0.27	2.49	4.43			N/A	N/A
D - A47 North	1.33	0.03	0.27	1.33	1.38			N/A	N/A
E - William Frost Way	2.37	0.03	0.27	2.37	3.74			N/A	N/A

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	2.06	0.03	0.26	2.06	2.06			N/A	N/A
B - A47 South									
C - Unnamed Road	2.52	0.03	0.27	2.52	2.52			N/A	N/A
D - A47 North	1.36	0.03	0.29	1.36	5.44			N/A	N/A
E - William Frost Way	2.42	0.03	0.27	2.42	2.42			N/A	N/A

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A1074	1.09	0.16	1.05	1.64	1.91			N/A	N/A
B - A47 South									
C - Unnamed Road	1.28	0.09	1.03	2.42	3.16			N/A	N/A
D - A47 North	0.55	0.05	0.57	1.32	1.41			N/A	N/A
E - William Frost Way	1.19	0.09	1.01	2.02	2.77			N/A	N/A

<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
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Filename: Junctions 9 - Existing Layout - Construction Peaks.j9

Path: C:\Users\921707\Box\PB8164 Equinor DOW SS Ext\PB8164 Team\PB8164 Technical Data\E08
Transport\TD\Calcs\Modelling\J9

Report generation date: 14/04/2023 11:25:09

-
- »Existing Layout - 2021 - Construction Peak - Baseline , AM
 - »Existing Layout - 2021 - Construction Peak - Baseline , PM
 - »Existing Layout - 2025 - Forecast Background Flows, AM
 - »Existing Layout - 2025 - Forecast Background Flows, PM
 - »Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation , AM
 - »Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation , PM
 - »Existing Layout - 2025 - Forecast Background Flows + SEP and DEP , AM
 - »Existing Layout - 2025 - Forecast Background Flows + SEP and DEP , PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Existing Layout - 2021 - Construction Peak - Baseline														
A - Link Road	0.7	5.03	0.40	A	3.71	A	126 % [C - Long Lane]	1.0	5.78	0.50	A	5.80	A	13 % [C - Long Lane]
B - A47 South Exit Ramp	0.3	2.43	0.24	A				0.7	3.02	0.42	A			
C - Long Lane	0.0	6.10	0.04	A				1.1	15.41	0.53	C			
D - Dereham Road	0.1	3.05	0.09	A				0.3	4.79	0.23	A			
Existing Layout - 2025 - Forecast Background Flows														
A - Link Road	0.8	5.31	0.44	A	3.90	A	110 % [C - Long Lane]	1.2	6.26	0.54	A	7.25	A	5 % [C - Long Lane]
B - A47 South Exit Ramp	0.4	2.55	0.26	A				0.8	3.32	0.46	A			
C - Long Lane	0.0	6.45	0.04	A				1.8	23.26	0.65	C			
D - Dereham Road	0.1	3.17	0.10	A				0.4	5.48	0.27	A			
Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation														
A - Link Road	0.8	5.49	0.45	A	4.02	A	103 % [A - Link Road]	1.2	6.26	0.54	A	7.37	A	4 % [C - Long Lane]
B - A47 South Exit Ramp	0.4	2.59	0.26	A				0.9	3.35	0.46	A			
C - Long Lane	0.0	6.56	0.04	A				1.8	24.20	0.66	C			
D - Dereham Road	0.1	3.21	0.11	A				0.4	5.55	0.27	A			
Existing Layout - 2025 - Forecast Background Flows + SEP and DEP														
A - Link Road	0.8	5.49	0.45	A	4.02	A	103 % [A - Link Road]	1.2	6.26	0.54	A	7.46	A	4 % [C - Long Lane]
B - A47 South Exit Ramp	0.4	2.59	0.26	A				0.9	3.38	0.47	A			
C - Long Lane	0.0	6.56	0.04	A				1.9	24.79	0.66	C			
D - Dereham Road	0.1	3.21	0.11	A				0.4	5.58	0.28	A			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

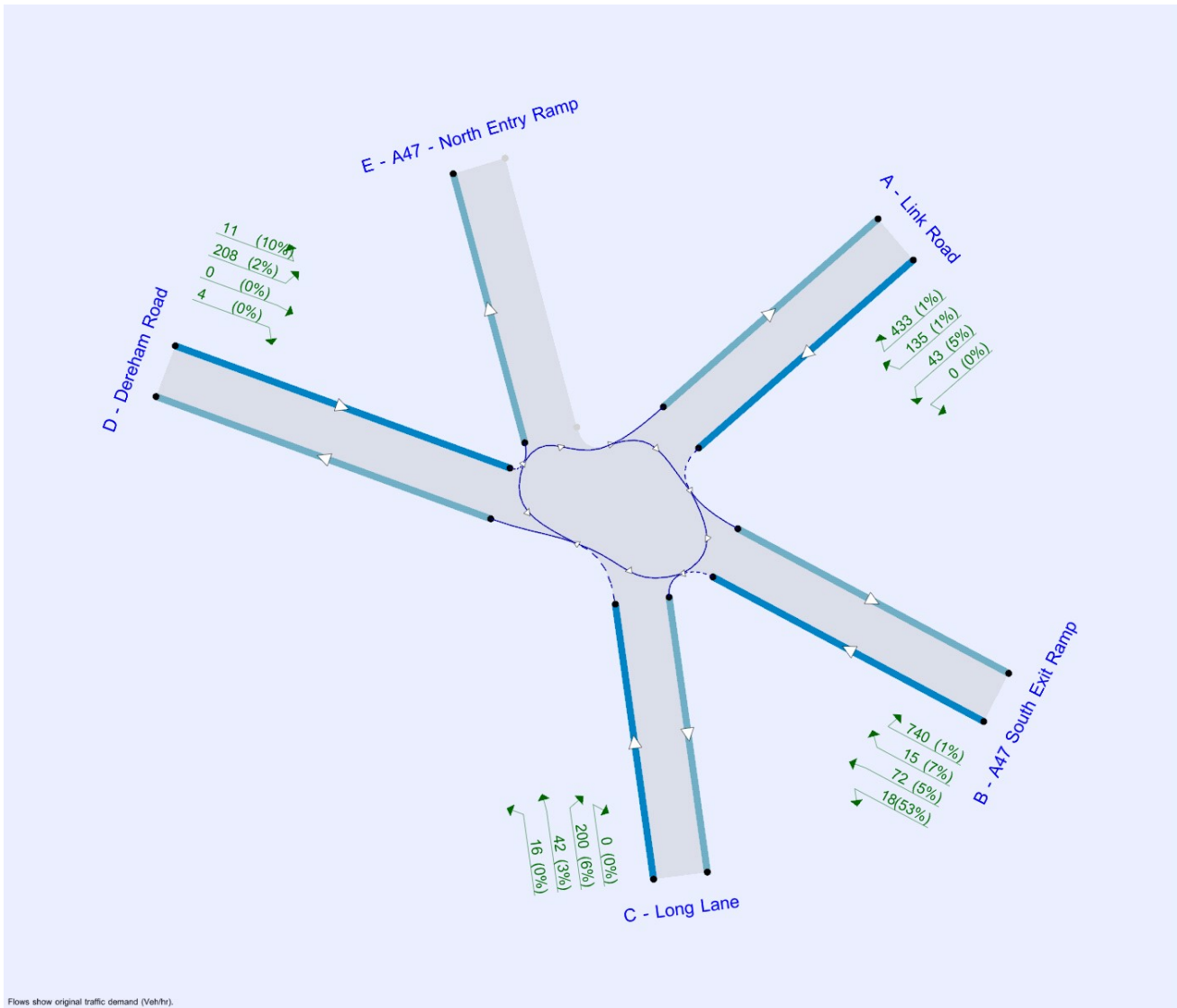
File summary

File Description

Title	Junction 9
Location	A47 / Long Lane
Site number	9
Date	16/03/2022
Version	1
Status	Existing Layout
Identifier	
Client	Equinor
Jobnumber	PB8164
Enumerator	CORPORATEROOT\921707
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



Flows show original traffic demand (Veh/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓		✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021 - Construction Peak - Baseline	AM	ONE HOUR	06:15	07:45	15	✓	✓
D2	2021 - Construction Peak - Baseline	PM	ONE HOUR	17:10	18:40	15	✓	✓
D3	2025 - Forecast Background Flows	AM	ONE HOUR	06:15	07:45	15	✓	✓
D4	2025 - Forecast Background Flows	PM	ONE HOUR	17:10	18:40	15	✓	✓
D5	2025 - Forecast Background Flows + SEP or DEP in Isolation	AM	ONE HOUR	06:15	07:45	15	✓	✓
D6	2025 - Forecast Background Flows + SEP or DEP in Isolation	PM	ONE HOUR	17:10	18:40	15	✓	✓
D7	2025 - Forecast Background Flows + SEP and DEP	AM	ONE HOUR	06:15	07:45	15	✓	✓
D8	2025 - Forecast Background Flows + SEP and DEP	PM	ONE HOUR	17:10	18:40	15	✓	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A9	Existing Layout	✓	100.000	100.000

Existing Layout - 2021 - Construction Peak - Baseline , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D1 - 2021 - Construction Peak - Baseline , AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A47 / Long Lane	Standard Roundabout		A, B, C, D, E	3.71	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	126	C - Long Lane

Arms

Arms

Arm	Name	Description
A	Link Road	
B	A47 South Exit Ramp	
C	Long Lane	
D	Dereham Road	
E	A47 - North Entry Ramp	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - Link Road	3.86	3.86	0.0	30.0	50.6	11.0	
B - A47 South Exit Ramp	6.75	8.85	11.6	22.8	50.2	15.0	
C - Long Lane	2.99	6.98	5.0	12.9	50.2	12.5	
D - Dereham Road	3.60	8.20	18.1	20.1	54.1	16.0	
E - A47 - North Entry Ramp							✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Link Road	0.548	1266
B - A47 South Exit Ramp	0.793	2590
C - Long Lane	0.540	1289
D - Dereham Road	0.648	1950
E - A47 - North Entry Ramp		

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)	Results for central hour only	Run automatically
D1	2021 - Construction Peak - Baseline	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Link Road		ONE HOUR	✓	440	100.000
B - A47 South Exit Ramp		ONE HOUR	✓	422	100.000
C - Long Lane		ONE HOUR	✓	22	100.000
D - Dereham Road		ONE HOUR	✓	111	100.000
E - A47 - North Entry Ramp					

Origin-Destination Data

Demand (Veh/hr)

		To				
		A - Link Road	B - A47 South Exit Ramp	C - Long Lane	D - Dereham Road	E - A47 - North Entry Ramp
From	A - Link Road	1	0	83	48	308
	B - A47 South Exit Ramp	337	0	38	37	10
	C - Long Lane	17	0	0	2	3
	D - Dereham Road	99	1	8	0	3
	E - A47 - North Entry Ramp	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A - Link Road	B - A47 South Exit Ramp	C - Long Lane	D - Dereham Road	E - A47 - North Entry Ramp
From	A - Link Road	0	0	4	0	6
	B - A47 South Exit Ramp	13	0	8	16	0
	C - Long Lane	41	0	0	0	0
	D - Dereham Road	8	100	0	0	33
	E - A47 - North Entry Ramp	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Link Road	0.40	5.03	0.7	2.6	A	440	440
B - A47 South Exit Ramp	0.24	2.43	0.3	1.3	A	422	422
C - Long Lane	0.04	6.10	0.0	0.5	A	22	22
D - Dereham Road	0.09	3.05	0.1	0.5	A	111	111
E - A47 - North Entry Ramp							

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	396	99	8	1201	0.329	395	408	0.4	0.5	4.468	A
B - A47 South Exit Ramp	379	95	402	2012	0.189	379	1	0.2	0.2	2.204	A
C - Long Lane	20	5	666	681	0.029	20	116	0.0	0.0	5.444	A
D - Dereham Road	100	25	607	1391	0.072	100	78	0.1	0.1	2.786	A
E - A47 - North Entry Ramp			416				291				

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	484	121	10	1199	0.404	484	499	0.5	0.7	5.024	A
B - A47 South Exit Ramp	465	116	493	1945	0.239	464	1	0.2	0.3	2.431	A
C - Long Lane	24	6	815	614	0.039	24	142	0.0	0.0	6.101	A
D - Dereham Road	122	31	743	1302	0.094	122	96	0.1	0.1	3.050	A
E - A47 - North Entry Ramp			509				356				

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	484	121	10	1199	0.404	484	500	0.7	0.7	5.034	A
B - A47 South Exit Ramp	465	116	493	1944	0.239	465	1	0.3	0.3	2.432	A
C - Long Lane	24	6	816	614	0.039	24	142	0.0	0.0	6.105	A
D - Dereham Road	122	31	744	1302	0.094	122	96	0.1	0.1	3.052	A
E - A47 - North Entry Ramp			510				357				

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	396	99	8	1201	0.329	396	409	0.7	0.5	4.481	A
B - A47 South Exit Ramp	379	95	403	2011	0.189	380	1	0.3	0.2	2.208	A
C - Long Lane	20	5	667	680	0.029	20	116	0.0	0.0	5.450	A
D - Dereham Road	100	25	609	1390	0.072	100	78	0.1	0.1	2.789	A
E - A47 - North Entry Ramp			417				292				

Queue Variation Results for each time segment

06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.49	0.00	0.00	0.49	0.49			N/A	N/A
B - A47 South Exit Ramp	0.23	0.00	0.00	0.23	0.23			N/A	N/A
C - Long Lane	0.03	0.03	0.25	0.45	0.48			N/A	N/A
D - Dereham Road	0.08	0.03	0.25	0.45	0.48			N/A	N/A
E - A47 - North Entry Ramp									

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.67	0.03	0.25	0.67	0.67			N/A	N/A
B - A47 South Exit Ramp	0.31	0.03	0.25	0.45	0.48			N/A	N/A
C - Long Lane	0.04	0.03	0.25	0.45	0.48			N/A	N/A
D - Dereham Road	0.10	0.03	0.26	0.47	0.49			N/A	N/A
E - A47 - North Entry Ramp									

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.67	0.03	0.28	0.78	2.58			N/A	N/A
B - A47 South Exit Ramp	0.31	0.03	0.31	1.00	1.26			N/A	N/A
C - Long Lane	0.04	0.00	0.00	0.04	0.04			N/A	N/A
D - Dereham Road	0.10	0.00	0.00	0.10	0.10			N/A	N/A
E - A47 - North Entry Ramp									

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.49	0.00	0.00	0.49	0.49			N/A	N/A
B - A47 South Exit Ramp	0.23	0.00	0.00	0.23	0.23			N/A	N/A
C - Long Lane	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D - Dereham Road	0.08	0.00	0.00	0.08	0.08			N/A	N/A
E - A47 - North Entry Ramp									

Existing Layout - 2021 - Construction Peak - Baseline , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2021 - Construction Peak - Baseline , PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A47 / Long Lane	Standard Roundabout		A, B, C, D, E	5.80	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	13	C - Long Lane

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D2	2021 - Construction Peak - Baseline	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Link Road		ONE HOUR	✓	566	100.000
B - A47 South Exit Ramp		ONE HOUR	✓	768	100.000
C - Long Lane		ONE HOUR	✓	239	100.000
D - Dereham Road		ONE HOUR	✓	207	100.000
E - A47 - North Entry Ramp					

Origin-Destination Data

Demand (Veh/hr)

		To				
		A - Link Road	B - A47 South Exit Ramp	C - Long Lane	D - Dereham Road	E - A47 - North Entry Ramp
From	A - Link Road	0	0	40	125	401
	B - A47 South Exit Ramp	670	0	17	67	14
	C - Long Lane	185	0	0	15	39
	D - Dereham Road	193	0	4	0	10
	E - A47 - North Entry Ramp	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

From	To					
	A - Link Road	B - A47 South Exit Ramp	C - Long Lane	D - Dereham Road	E - A47 - North Entry Ramp	
A - Link Road	0	0	5	1	1	
B - A47 South Exit Ramp	1	0	53	5	7	
C - Long Lane	6	0	0	0	3	
D - Dereham Road	2	0	0	0	10	
E - A47 - North Entry Ramp	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Link Road	0.50	5.78	1.0	1.4	A	566	566
B - A47 South Exit Ramp	0.42	3.02	0.7	2.7	A	768	768
C - Long Lane	0.53	15.41	1.1	4.9	C	239	239
D - Dereham Road	0.23	4.79	0.3	1.3	A	207	207
E - A47 - North Entry Ramp							

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	509	127	4	1247	0.408	508	941	0.5	0.7	4.871	A
B - A47 South Exit Ramp	690	173	512	2126	0.325	690	0	0.4	0.5	2.506	A
C - Long Lane	215	54	1147	631	0.340	214	55	0.3	0.5	8.614	A
D - Dereham Road	186	47	1175	1152	0.162	186	186	0.1	0.2	3.727	A
E - A47 - North Entry Ramp			945				417				

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	623	156	4	1246	0.500	622	1151	0.7	1.0	5.755	A
B - A47 South Exit Ramp	846	211	626	2036	0.415	845	0	0.5	0.7	3.020	A
C - Long Lane	263	66	1404	497	0.529	261	67	0.5	1.1	15.067	C
D - Dereham Road	228	57	1437	982	0.232	227	227	0.2	0.3	4.769	A
E - A47 - North Entry Ramp			1155				510				

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	623	156	4	1246	0.500	623	1154	1.0	1.0	5.778	A
B - A47 South Exit Ramp	846	211	628	2035	0.415	846	0	0.7	0.7	3.024	A
C - Long Lane	263	66	1406	496	0.530	263	67	1.1	1.1	15.410	C
D - Dereham Road	228	57	1441	980	0.233	228	228	0.3	0.3	4.789	A
E - A47 - North Entry Ramp			1158				511				

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	509	127	4	1247	0.408	510	945	1.0	0.7	4.897	A
B - A47 South Exit Ramp	690	173	514	2125	0.325	691	0	0.7	0.5	2.512	A
C - Long Lane	215	54	1150	630	0.341	217	55	1.1	0.5	8.774	A
D - Dereham Road	186	47	1181	1148	0.162	187	187	0.3	0.2	3.744	A
E - A47 - North Entry Ramp			949				418				

Queue Variation Results for each time segment
17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.68	0.13	0.88	1.38	1.44			N/A	N/A
B - A47 South Exit Ramp	0.48	0.00	0.00	0.48	0.48			N/A	N/A
C - Long Lane	0.51	0.05	0.52	1.30	1.40			N/A	N/A
D - Dereham Road	0.19	0.00	0.00	0.19	0.19			N/A	N/A
E - A47 - North Entry Ramp									

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.99	0.03	0.26	0.99	0.99			N/A	N/A
B - A47 South Exit Ramp	0.71	0.03	0.25	0.71	0.71			N/A	N/A
C - Long Lane	1.09	0.03	0.27	1.09	1.09			N/A	N/A
D - Dereham Road	0.30	0.03	0.25	0.46	0.48			N/A	N/A
E - A47 - North Entry Ramp									

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.99	0.03	0.27	0.99	1.44			N/A	N/A
B - A47 South Exit Ramp	0.71	0.03	0.28	0.84	2.74			N/A	N/A
C - Long Lane	1.11	0.03	0.29	1.11	4.94			N/A	N/A
D - Dereham Road	0.30	0.03	0.31	0.98	1.26			N/A	N/A
E - A47 - North Entry Ramp									

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.70	0.27	0.95	1.39	1.45			N/A	N/A
B - A47 South Exit Ramp	0.48	0.00	0.00	0.48	0.48			N/A	N/A
C - Long Lane	0.53	0.05	0.48	1.30	1.40			N/A	N/A
D - Dereham Road	0.19	0.00	0.00	0.19	0.19			N/A	N/A
E - A47 - North Entry Ramp									

Existing Layout - 2025 - Forecast Background Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D3 - 2025 - Forecast Background Flows, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A47 / Long Lane	Standard Roundabout		A, B, C, D, E	3.90	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	110	C - Long Lane

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D3	2025 - Forecast Background Flows	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Link Road		ONE HOUR	✓	474	100.000
B - A47 South Exit Ramp		ONE HOUR	✓	455	100.000
C - Long Lane		ONE HOUR	✓	23	100.000
D - Dereham Road		ONE HOUR	✓	120	100.000
E - A47 - North Entry Ramp					

Origin-Destination Data

Demand (Veh/hr)

		To				
		A - Link Road	B - A47 South Exit Ramp	C - Long Lane	D - Dereham Road	E - A47 - North Entry Ramp
From	A - Link Road	1	0	89	52	332
	B - A47 South Exit Ramp	363	0	41	40	11
	C - Long Lane	18	0	0	2	3
	D - Dereham Road	107	1	9	0	3
	E - A47 - North Entry Ramp	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		A - Link Road	B - A47 South Exit Ramp	C - Long Lane	D - Dereham Road	E - A47 - North Entry Ramp
	A - Link Road	0	0	4	0	6
	B - A47 South Exit Ramp	13	0	8	16	0
	C - Long Lane	41	0	0	0	0
	D - Dereham Road	8	100	0	0	33
	E - A47 - North Entry Ramp	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Link Road	0.44	5.31	0.8	2.3	A	474	474
B - A47 South Exit Ramp	0.26	2.55	0.4	1.4	A	455	455
C - Long Lane	0.04	6.45	0.0	0.5	A	23	23
D - Dereham Road	0.10	3.17	0.1	0.5	A	120	120
E - A47 - North Entry Ramp							

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	426	107	9	1201	0.355	426	439	0.4	0.5	4.641	A
B - A47 South Exit Ramp	409	102	434	1982	0.206	409	1	0.2	0.3	2.288	A
C - Long Lane	21	5	718	656	0.032	21	125	0.0	0.0	5.665	A
D - Dereham Road	108	27	654	1363	0.079	108	84	0.1	0.1	2.867	A
E - A47 - North Entry Ramp			448				313				

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	522	130	11	1200	0.435	521	538	0.5	0.8	5.298	A
B - A47 South Exit Ramp	501	125	531	1910	0.262	501	1	0.3	0.4	2.554	A
C - Long Lane	25	6	879	584	0.043	25	153	0.0	0.0	6.441	A
D - Dereham Road	132	33	801	1267	0.104	132	103	0.1	0.1	3.172	A
E - A47 - North Entry Ramp			549				384				

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	522	130	11	1200	0.435	522	538	0.8	0.8	5.310	A
B - A47 South Exit Ramp	501	125	532	1910	0.262	501	1	0.4	0.4	2.555	A
C - Long Lane	25	6	880	584	0.043	25	153	0.0	0.0	6.446	A
D - Dereham Road	132	33	802	1266	0.104	132	103	0.1	0.1	3.174	A
E - A47 - North Entry Ramp			549				384				

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	426	107	9	1201	0.355	427	440	0.8	0.6	4.656	A
B - A47 South Exit Ramp	409	102	435	1981	0.206	409	1	0.4	0.3	2.292	A
C - Long Lane	21	5	719	655	0.032	21	125	0.0	0.0	5.675	A
D - Dereham Road	108	27	655	1362	0.079	108	85	0.1	0.1	2.872	A
E - A47 - North Entry Ramp			449				314				

Queue Variation Results for each time segment
06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.55	0.55	1.00	1.40	1.45			N/A	N/A
B - A47 South Exit Ramp	0.26	0.00	0.00	0.26	0.26			N/A	N/A
C - Long Lane	0.03	0.03	0.25	0.45	0.48			N/A	N/A
D - Dereham Road	0.09	0.03	0.26	0.47	0.50			N/A	N/A
E - A47 - North Entry Ramp									

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.76	0.03	0.25	0.76	0.76			N/A	N/A
B - A47 South Exit Ramp	0.35	0.03	0.25	0.45	0.48			N/A	N/A
C - Long Lane	0.04	0.03	0.25	0.46	0.48			N/A	N/A
D - Dereham Road	0.12	0.03	0.26	0.46	0.49			N/A	N/A
E - A47 - North Entry Ramp									

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.77	0.03	0.28	0.77	2.32			N/A	N/A
B - A47 South Exit Ramp	0.35	0.03	0.33	1.16	1.40			N/A	N/A
C - Long Lane	0.05	0.00	0.00	0.05	0.05			N/A	N/A
D - Dereham Road	0.12	0.00	0.00	0.12	0.12			N/A	N/A
E - A47 - North Entry Ramp									

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.55	0.55	1.00	1.40	1.45			N/A	N/A
B - A47 South Exit Ramp	0.26	0.00	0.00	0.26	0.26			N/A	N/A
C - Long Lane	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D - Dereham Road	0.09	0.00	0.00	0.09	0.09			N/A	N/A
E - A47 - North Entry Ramp									

Existing Layout - 2025 - Forecast Background Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D4 - 2025 - Forecast Background Flows, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A47 / Long Lane	Standard Roundabout		A, B, C, D, E	7.25	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	5	C - Long Lane

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D4	2025 - Forecast Background Flows	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Link Road		ONE HOUR	✓	611	100.000
B - A47 South Exit Ramp		ONE HOUR	✓	828	100.000
C - Long Lane		ONE HOUR	✓	258	100.000
D - Dereham Road		ONE HOUR	✓	223	100.000
E - A47 - North Entry Ramp					

Origin-Destination Data

Demand (Veh/hr)

		To				
		A - Link Road	B - A47 South Exit Ramp	C - Long Lane	D - Dereham Road	E - A47 - North Entry Ramp
From	A - Link Road	0	0	43	135	433
	B - A47 South Exit Ramp	723	0	18	72	15
	C - Long Lane	200	0	0	16	42
	D - Dereham Road	208	0	4	0	11
	E - A47 - North Entry Ramp	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		A - Link Road	B - A47 South Exit Ramp	C - Long Lane	D - Dereham Road	E - A47 - North Entry Ramp
	A - Link Road	0	0	5	1	1
	B - A47 South Exit Ramp	1	0	53	5	7
	C - Long Lane	6	0	0	0	3
	D - Dereham Road	2	0	0	0	10
	E - A47 - North Entry Ramp	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Link Road	0.54	6.26	1.2	1.5	A	611	611
B - A47 South Exit Ramp	0.46	3.32	0.8	2.1	A	828	828
C - Long Lane	0.65	23.26	1.8	8.4	C	258	258
D - Dereham Road	0.27	5.48	0.4	1.5	A	223	223
E - A47 - North Entry Ramp							

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	549	137	4	1248	0.440	548	1015	0.6	0.8	5.143	A
B - A47 South Exit Ramp	744	186	552	2094	0.356	744	0	0.4	0.5	2.665	A
C - Long Lane	232	58	1237	583	0.398	231	58	0.4	0.6	10.185	B
D - Dereham Road	200	50	1268	1087	0.184	200	200	0.2	0.2	4.057	A
E - A47 - North Entry Ramp			1019				450				

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	673	168	4	1247	0.539	671	1240	0.8	1.2	6.232	A
B - A47 South Exit Ramp	912	228	676	1997	0.457	911	0	0.5	0.8	3.310	A
C - Long Lane	284	71	1515	439	0.647	280	71	0.6	1.7	22.026	C
D - Dereham Road	246	61	1550	906	0.271	245	245	0.2	0.4	5.443	A
E - A47 - North Entry Ramp			1245				550				

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	673	168	4	1247	0.539	673	1245	1.2	1.2	6.264	A
B - A47 South Exit Ramp	912	228	677	1996	0.457	912	0	0.8	0.8	3.319	A
C - Long Lane	284	71	1517	438	0.649	284	72	1.7	1.8	23.258	C
D - Dereham Road	246	61	1555	902	0.272	246	246	0.4	0.4	5.483	A
E - A47 - North Entry Ramp			1249				552				

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	549	137	4	1248	0.440	551	1022	1.2	0.8	5.175	A
B - A47 South Exit Ramp	744	186	554	2092	0.356	745	0	0.8	0.6	2.677	A
C - Long Lane	232	58	1241	581	0.399	236	59	1.8	0.7	10.565	B
D - Dereham Road	200	50	1276	1082	0.185	201	201	0.4	0.2	4.091	A
E - A47 - North Entry Ramp			1025				452				

Queue Variation Results for each time segment
17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.78	0.11	0.88	1.42	1.48			N/A	N/A
B - A47 South Exit Ramp	0.55	0.07	0.69	1.34	1.42			N/A	N/A
C - Long Lane	0.65	0.07	0.72	1.36	1.44			N/A	N/A
D - Dereham Road	0.22	0.00	0.00	0.22	0.22			N/A	N/A
E - A47 - North Entry Ramp									

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	1.15	0.03	0.26	1.15	1.15			N/A	N/A
B - A47 South Exit Ramp	0.83	0.03	0.25	0.83	0.83			N/A	N/A
C - Long Lane	1.71	0.03	0.29	1.71	7.65			N/A	N/A
D - Dereham Road	0.37	0.03	0.25	0.46	0.48			N/A	N/A
E - A47 - North Entry Ramp									

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	1.16	0.03	0.27	1.16	1.49			N/A	N/A
B - A47 South Exit Ramp	0.84	0.03	0.27	0.84	2.12			N/A	N/A
C - Long Lane	1.78	0.03	0.30	2.11	8.42			N/A	N/A
D - Dereham Road	0.37	0.03	0.33	1.22	1.47			N/A	N/A
E - A47 - North Entry Ramp									

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.79	0.22	0.94	1.40	1.46			N/A	N/A
B - A47 South Exit Ramp	0.55	0.55	1.00	1.40	1.45			N/A	N/A
C - Long Lane	0.68	0.05	0.48	1.10	1.70			N/A	N/A
D - Dereham Road	0.23	0.00	0.00	0.23	0.23			N/A	N/A
E - A47 - North Entry Ramp									

Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D5 - 2025 - Forecast Background Flows + SEP or DEP in Isolation , AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A47 / Long Lane	Standard Roundabout		A, B, C, D, E	4.02	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	103	A - Link Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D5	2025 - Forecast Background Flows + SEP or DEP in Isolation	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Link Road		ONE HOUR	✓	494	100.000
B - A47 South Exit Ramp		ONE HOUR	✓	455	100.000
C - Long Lane		ONE HOUR	✓	23	100.000
D - Dereham Road		ONE HOUR	✓	120	100.000
E - A47 - North Entry Ramp					

Origin-Destination Data

Demand (Veh/hr)

		To				
		A - Link Road	B - A47 South Exit Ramp	C - Long Lane	D - Dereham Road	E - A47 - North Entry Ramp
From	A - Link Road	1	0	89	52	352
	B - A47 South Exit Ramp	363	0	41	40	11
	C - Long Lane	18	0	0	2	3
	D - Dereham Road	107	1	9	0	3
	E - A47 - North Entry Ramp	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A - Link Road	B - A47 South Exit Ramp	C - Long Lane	D - Dereham Road	E - A47 - North Entry Ramp
From	A - Link Road	0	0	4	0	6
	B - A47 South Exit Ramp	13	0	8	16	0
	C - Long Lane	41	0	0	0	0
	D - Dereham Road	8	100	0	0	33
	E - A47 - North Entry Ramp	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Link Road	0.45	5.49	0.8	2.1	A	494	494
B - A47 South Exit Ramp	0.26	2.59	0.4	1.4	A	455	455
C - Long Lane	0.04	6.56	0.0	0.5	A	23	23
D - Dereham Road	0.11	3.21	0.1	0.5	A	120	120
E - A47 - North Entry Ramp							

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	444	111	9	1200	0.370	444	439	0.4	0.6	4.754	A
B - A47 South Exit Ramp	409	102	452	1969	0.208	409	1	0.2	0.3	2.307	A
C - Long Lane	21	5	736	648	0.032	21	125	0.0	0.0	5.735	A
D - Dereham Road	108	27	672	1352	0.080	108	84	0.1	0.1	2.893	A
E - A47 - North Entry Ramp			448				331				

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	544	136	11	1199	0.454	543	538	0.6	0.8	5.478	A
B - A47 South Exit Ramp	501	125	553	1894	0.265	501	1	0.3	0.4	2.584	A
C - Long Lane	25	6	901	575	0.044	25	153	0.0	0.0	6.552	A
D - Dereham Road	132	33	823	1253	0.105	132	103	0.1	0.1	3.211	A
E - A47 - North Entry Ramp			549				406				

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	544	136	11	1199	0.454	544	538	0.8	0.8	5.493	A
B - A47 South Exit Ramp	501	125	554	1893	0.265	501	1	0.4	0.4	2.585	A
C - Long Lane	25	6	902	574	0.044	25	153	0.0	0.0	6.558	A
D - Dereham Road	132	33	824	1252	0.106	132	103	0.1	0.1	3.213	A
E - A47 - North Entry Ramp			549				406				

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	444	111	9	1200	0.370	445	440	0.8	0.6	4.773	A
B - A47 South Exit Ramp	409	102	453	1967	0.208	409	1	0.4	0.3	2.312	A
C - Long Lane	21	5	737	647	0.032	21	125	0.0	0.0	5.746	A
D - Dereham Road	108	27	673	1351	0.080	108	85	0.1	0.1	2.896	A
E - A47 - North Entry Ramp			449				332				

Queue Variation Results for each time segment

06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.58	0.11	0.85	1.37	1.44			N/A	N/A
B - A47 South Exit Ramp	0.26	0.00	0.00	0.26	0.26			N/A	N/A
C - Long Lane	0.03	0.03	0.25	0.45	0.48			N/A	N/A
D - Dereham Road	0.09	0.03	0.26	0.47	0.50			N/A	N/A
E - A47 - North Entry Ramp									

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.82	0.03	0.26	0.82	0.82			N/A	N/A
B - A47 South Exit Ramp	0.36	0.03	0.25	0.45	0.48			N/A	N/A
C - Long Lane	0.05	0.03	0.25	0.46	0.48			N/A	N/A
D - Dereham Road	0.12	0.03	0.26	0.46	0.49			N/A	N/A
E - A47 - North Entry Ramp									

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.83	0.03	0.27	0.83	2.06			N/A	N/A
B - A47 South Exit Ramp	0.36	0.03	0.33	1.18	1.41			N/A	N/A
C - Long Lane	0.05	0.00	0.00	0.05	0.05			N/A	N/A
D - Dereham Road	0.12	0.00	0.00	0.12	0.12			N/A	N/A
E - A47 - North Entry Ramp									

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.59	0.55	1.00	1.40	1.45			N/A	N/A
B - A47 South Exit Ramp	0.26	0.00	0.00	0.26	0.26			N/A	N/A
C - Long Lane	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D - Dereham Road	0.09	0.00	0.00	0.09	0.09			N/A	N/A
E - A47 - North Entry Ramp									

Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - 2025 - Forecast Background Flows + SEP or DEP in Isolation , PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A47 / Long Lane	Standard Roundabout		A, B, C, D, E	7.37	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	4	C - Long Lane

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D6	2025 - Forecast Background Flows + SEP or DEP in Isolation	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Link Road		ONE HOUR	✓	611	100.000
B - A47 South Exit Ramp		ONE HOUR	✓	839	100.000
C - Long Lane		ONE HOUR	✓	258	100.000
D - Dereham Road		ONE HOUR	✓	223	100.000
E - A47 - North Entry Ramp					

Origin-Destination Data

Demand (Veh/hr)

		To				
		A - Link Road	B - A47 South Exit Ramp	C - Long Lane	D - Dereham Road	E - A47 - North Entry Ramp
From	A - Link Road	0	0	43	135	433
	B - A47 South Exit Ramp	734	0	18	72	15
	C - Long Lane	200	0	0	16	42
	D - Dereham Road	208	0	4	0	11
	E - A47 - North Entry Ramp	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A - Link Road	B - A47 South Exit Ramp	C - Long Lane	D - Dereham Road	E - A47 - North Entry Ramp
From	A - Link Road	0	0	5	1	1
	B - A47 South Exit Ramp	1	0	53	5	7
	C - Long Lane	6	0	0	0	3
	D - Dereham Road	2	0	0	0	10
	E - A47 - North Entry Ramp	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Link Road	0.54	6.26	1.2	1.5	A	611	611
B - A47 South Exit Ramp	0.46	3.35	0.9	2.0	A	839	839
C - Long Lane	0.66	24.20	1.8	8.9	C	258	258
D - Dereham Road	0.27	5.55	0.4	1.5	A	223	223
E - A47 - North Entry Ramp							

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	549	137	4	1248	0.440	548	1025	0.6	0.8	5.139	A
B - A47 South Exit Ramp	754	189	552	2094	0.360	754	0	0.4	0.6	2.683	A
C - Long Lane	232	58	1247	578	0.401	231	58	0.4	0.7	10.330	B
D - Dereham Road	200	50	1278	1081	0.185	200	200	0.2	0.2	4.086	A
E - A47 - North Entry Ramp			1029				450				

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	673	168	4	1248	0.539	671	1252	0.8	1.2	6.226	A
B - A47 South Exit Ramp	924	231	676	1998	0.462	923	0	0.6	0.9	3.346	A
C - Long Lane	284	71	1527	433	0.656	280	71	0.7	1.8	22.822	C
D - Dereham Road	246	61	1562	898	0.273	245	245	0.2	0.4	5.506	A
E - A47 - North Entry Ramp			1257				550				

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	673	168	4	1248	0.539	673	1257	1.2	1.2	6.258	A
B - A47 South Exit Ramp	924	231	677	1997	0.463	924	0	0.9	0.9	3.355	A
C - Long Lane	284	71	1529	432	0.658	284	72	1.8	1.8	24.203	C
D - Dereham Road	246	61	1568	894	0.275	246	246	0.4	0.4	5.548	A
E - A47 - North Entry Ramp			1262				552				

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	549	137	4	1248	0.440	551	1032	1.2	0.8	5.173	A
B - A47 South Exit Ramp	754	189	554	2093	0.360	755	0	0.9	0.6	2.694	A
C - Long Lane	232	58	1251	576	0.402	237	59	1.8	0.7	10.735	B
D - Dereham Road	200	50	1287	1075	0.186	201	201	0.4	0.2	4.121	A
E - A47 - North Entry Ramp			1035				452				

Queue Variation Results for each time segment
17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.78	0.11	0.88	1.41	1.48			N/A	N/A
B - A47 South Exit Ramp	0.56	0.07	0.71	1.34	1.42			N/A	N/A
C - Long Lane	0.66	0.07	0.72	1.37	1.45			N/A	N/A
D - Dereham Road	0.23	0.00	0.00	0.23	0.23			N/A	N/A
E - A47 - North Entry Ramp									

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	1.15	0.03	0.26	1.15	1.15			N/A	N/A
B - A47 South Exit Ramp	0.85	0.03	0.25	0.85	0.85			N/A	N/A
C - Long Lane	1.78	0.03	0.30	1.91	8.21			N/A	N/A
D - Dereham Road	0.37	0.03	0.25	0.46	0.48			N/A	N/A
E - A47 - North Entry Ramp									

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	1.16	0.03	0.27	1.16	1.49			N/A	N/A
B - A47 South Exit Ramp	0.86	0.03	0.27	0.86	1.99			N/A	N/A
C - Long Lane	1.85	0.03	0.30	2.34	8.86			N/A	N/A
D - Dereham Road	0.38	0.03	0.33	1.23	1.48			N/A	N/A
E - A47 - North Entry Ramp									

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.79	0.22	0.94	1.40	1.46			N/A	N/A
B - A47 South Exit Ramp	0.57	0.55	1.00	1.40	1.45			N/A	N/A
C - Long Lane	0.69	0.05	0.47	1.20	1.77			N/A	N/A
D - Dereham Road	0.23	0.00	0.00	0.23	0.23			N/A	N/A
E - A47 - North Entry Ramp									

Existing Layout - 2025 - Forecast Background Flows + SEP and DEP , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D7 - 2025 - Forecast Background Flows + SEP and DEP , AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A47 / Long Lane	Standard Roundabout		A, B, C, D, E	4.02	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	103	A - Link Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D7	2025 - Forecast Background Flows + SEP and DEP	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Link Road		ONE HOUR	✓	494	100.000
B - A47 South Exit Ramp		ONE HOUR	✓	455	100.000
C - Long Lane		ONE HOUR	✓	23	100.000
D - Dereham Road		ONE HOUR	✓	120	100.000
E - A47 - North Entry Ramp					

Origin-Destination Data

Demand (Veh/hr)

		To				
		A - Link Road	B - A47 South Exit Ramp	C - Long Lane	D - Dereham Road	E - A47 - North Entry Ramp
From	A - Link Road	1	0	89	52	352
	B - A47 South Exit Ramp	363	0	41	40	11
	C - Long Lane	18	0	0	2	3
	D - Dereham Road	107	1	9	0	3
	E - A47 - North Entry Ramp	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A - Link Road	B - A47 South Exit Ramp	C - Long Lane	D - Dereham Road	E - A47 - North Entry Ramp
From	A - Link Road	0	0	4	0	6
	B - A47 South Exit Ramp	13	0	8	16	0
	C - Long Lane	41	0	0	0	0
	D - Dereham Road	8	100	0	0	33
	E - A47 - North Entry Ramp	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Link Road	0.45	5.49	0.8	2.1	A	494	494
B - A47 South Exit Ramp	0.26	2.59	0.4	1.4	A	455	455
C - Long Lane	0.04	6.56	0.0	0.5	A	23	23
D - Dereham Road	0.11	3.21	0.1	0.5	A	120	120
E - A47 - North Entry Ramp							

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	444	111	9	1200	0.370	444	439	0.4	0.6	4.754	A
B - A47 South Exit Ramp	409	102	452	1969	0.208	409	1	0.2	0.3	2.307	A
C - Long Lane	21	5	736	648	0.032	21	125	0.0	0.0	5.735	A
D - Dereham Road	108	27	672	1352	0.080	108	84	0.1	0.1	2.893	A
E - A47 - North Entry Ramp			448				331				

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	544	136	11	1199	0.454	543	538	0.6	0.8	5.478	A
B - A47 South Exit Ramp	501	125	553	1894	0.265	501	1	0.3	0.4	2.584	A
C - Long Lane	25	6	901	575	0.044	25	153	0.0	0.0	6.552	A
D - Dereham Road	132	33	823	1253	0.105	132	103	0.1	0.1	3.211	A
E - A47 - North Entry Ramp			549				406				

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	544	136	11	1199	0.454	544	538	0.8	0.8	5.493	A
B - A47 South Exit Ramp	501	125	554	1893	0.265	501	1	0.4	0.4	2.585	A
C - Long Lane	25	6	902	574	0.044	25	153	0.0	0.0	6.558	A
D - Dereham Road	132	33	824	1252	0.106	132	103	0.1	0.1	3.213	A
E - A47 - North Entry Ramp			549				406				

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	444	111	9	1200	0.370	445	440	0.8	0.6	4.773	A
B - A47 South Exit Ramp	409	102	453	1967	0.208	409	1	0.4	0.3	2.312	A
C - Long Lane	21	5	737	647	0.032	21	125	0.0	0.0	5.746	A
D - Dereham Road	108	27	673	1351	0.080	108	85	0.1	0.1	2.896	A
E - A47 - North Entry Ramp			449				332				

Queue Variation Results for each time segment
06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.58	0.11	0.85	1.37	1.44			N/A	N/A
B - A47 South Exit Ramp	0.26	0.00	0.00	0.26	0.26			N/A	N/A
C - Long Lane	0.03	0.03	0.25	0.45	0.48			N/A	N/A
D - Dereham Road	0.09	0.03	0.26	0.47	0.50			N/A	N/A
E - A47 - North Entry Ramp									

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.82	0.03	0.26	0.82	0.82			N/A	N/A
B - A47 South Exit Ramp	0.36	0.03	0.25	0.45	0.48			N/A	N/A
C - Long Lane	0.05	0.03	0.25	0.46	0.48			N/A	N/A
D - Dereham Road	0.12	0.03	0.26	0.46	0.49			N/A	N/A
E - A47 - North Entry Ramp									

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.83	0.03	0.27	0.83	2.06			N/A	N/A
B - A47 South Exit Ramp	0.36	0.03	0.33	1.18	1.41			N/A	N/A
C - Long Lane	0.05	0.00	0.00	0.05	0.05			N/A	N/A
D - Dereham Road	0.12	0.00	0.00	0.12	0.12			N/A	N/A
E - A47 - North Entry Ramp									

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.59	0.55	1.00	1.40	1.45			N/A	N/A
B - A47 South Exit Ramp	0.26	0.00	0.00	0.26	0.26			N/A	N/A
C - Long Lane	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D - Dereham Road	0.09	0.00	0.00	0.09	0.09			N/A	N/A
E - A47 - North Entry Ramp									

Existing Layout - 2025 - Forecast Background Flows + SEP and DEP , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D8 - 2025 - Forecast Background Flows + SEP and DEP , PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A47 / Long Lane	Standard Roundabout		A, B, C, D, E	7.46	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	4	C - Long Lane

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D8	2025 - Forecast Background Flows + SEP and DEP	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Link Road		ONE HOUR	✓	611	100.000
B - A47 South Exit Ramp		ONE HOUR	✓	845	100.000
C - Long Lane		ONE HOUR	✓	258	100.000
D - Dereham Road		ONE HOUR	✓	223	100.000
E - A47 - North Entry Ramp					

Origin-Destination Data

Demand (Veh/hr)

		To				
		A - Link Road	B - A47 South Exit Ramp	C - Long Lane	D - Dereham Road	E - A47 - North Entry Ramp
From	A - Link Road	0	0	43	135	433
	B - A47 South Exit Ramp	740	0	18	72	15
	C - Long Lane	200	0	0	16	42
	D - Dereham Road	208	0	4	0	11
	E - A47 - North Entry Ramp	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A - Link Road	B - A47 South Exit Ramp	C - Long Lane	D - Dereham Road	E - A47 - North Entry Ramp
From	A - Link Road	0	0	5	1	1
	B - A47 South Exit Ramp	1	0	53	5	7
	C - Long Lane	6	0	0	0	3
	D - Dereham Road	2	0	0	0	10
	E - A47 - North Entry Ramp	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Link Road	0.54	6.26	1.2	1.5	A	611	611
B - A47 South Exit Ramp	0.47	3.38	0.9	1.9	A	845	845
C - Long Lane	0.66	24.79	1.9	9.1	C	258	258
D - Dereham Road	0.28	5.58	0.4	1.5	A	223	223
E - A47 - North Entry Ramp							

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	549	137	4	1248	0.440	548	1030	0.6	0.8	5.143	A
B - A47 South Exit Ramp	760	190	552	2094	0.363	759	0	0.4	0.6	2.694	A
C - Long Lane	232	58	1253	575	0.403	231	58	0.4	0.7	10.416	B
D - Dereham Road	200	50	1283	1078	0.186	200	200	0.2	0.2	4.102	A
E - A47 - North Entry Ramp			1034				450				

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	673	168	4	1247	0.539	671	1259	0.8	1.2	6.232	A
B - A47 South Exit Ramp	930	233	676	1998	0.466	929	0	0.6	0.9	3.366	A
C - Long Lane	284	71	1533	430	0.661	279	71	0.7	1.8	23.314	C
D - Dereham Road	246	61	1568	894	0.275	245	245	0.2	0.4	5.541	A
E - A47 - North Entry Ramp			1263				550				

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	673	168	4	1247	0.539	673	1264	1.2	1.2	6.264	A
B - A47 South Exit Ramp	930	233	677	1997	0.466	930	0	0.9	0.9	3.375	A
C - Long Lane	284	71	1536	428	0.663	284	72	1.8	1.9	24.789	C
D - Dereham Road	246	61	1574	890	0.276	246	246	0.4	0.4	5.585	A
E - A47 - North Entry Ramp			1268				552				

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Link Road	549	137	4	1248	0.440	551	1037	1.2	0.8	5.175	A
B - A47 South Exit Ramp	760	190	554	2093	0.363	761	0	0.9	0.6	2.707	A
C - Long Lane	232	58	1257	573	0.405	237	59	1.9	0.7	10.841	B
D - Dereham Road	200	50	1292	1072	0.187	201	201	0.4	0.2	4.136	A
E - A47 - North Entry Ramp			1041				452				

Queue Variation Results for each time segment
17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.78	0.11	0.88	1.42	1.48			N/A	N/A
B - A47 South Exit Ramp	0.57	0.07	0.72	1.35	1.42			N/A	N/A
C - Long Lane	0.66	0.07	0.72	1.38	1.46			N/A	N/A
D - Dereham Road	0.23	0.00	0.00	0.23	0.23			N/A	N/A
E - A47 - North Entry Ramp									

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	1.15	0.03	0.26	1.15	1.15			N/A	N/A
B - A47 South Exit Ramp	0.87	0.03	0.25	0.87	0.87			N/A	N/A
C - Long Lane	1.82	0.03	0.30	2.12	8.55			N/A	N/A
D - Dereham Road	0.38	0.03	0.25	0.46	0.48			N/A	N/A
E - A47 - North Entry Ramp									

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	1.16	0.03	0.27	1.16	1.49			N/A	N/A
B - A47 South Exit Ramp	0.87	0.03	0.27	0.87	1.93			N/A	N/A
C - Long Lane	1.89	0.03	0.30	2.48	9.14			N/A	N/A
D - Dereham Road	0.38	0.03	0.33	1.24	1.49			N/A	N/A
E - A47 - North Entry Ramp									

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Link Road	0.79	0.22	0.94	1.40	1.46			N/A	N/A
B - A47 South Exit Ramp	0.57	0.55	1.00	1.40	1.45			N/A	N/A
C - Long Lane	0.69	0.05	0.47	1.25	1.82			N/A	N/A
D - Dereham Road	0.23	0.00	0.00	0.23	0.23			N/A	N/A
E - A47 - North Entry Ramp									

<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
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Filename: Junction 10 - Existing Layout - Construction Peaks.j9

Path: C:\Users\921707\Box\PB8164 Equinor DOW SS Ext\PB8164 Team\PB8164 Technical Data\E08
Transport\TD\Calcs\Modelling\J10

Report generation date: 14/04/2023 11:26:31

-
- »Existing Layout - 2021 - Construction Peak - Baseline, AM
 - »Existing Layout - 2021 - Construction Peak - Baseline , PM
 - »Existing Layout - 2025 - Forecast Background Flows, AM
 - »Existing Layout - 2025 - Forecast Background Flows, PM
 - »Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation , AM
 - »Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation , PM
 - »Existing Layout - 2025 - Forecast Background Flows + SEP and DEP , AM
 - »Existing Layout - 2025 - Forecast Background Flows + SEP and DEP, PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Existing Layout - 2021 - Construction Peak - Baseline														
A - Unnamed Road	0.0	0.00	0.00	A	2.59	A	201 % [F - A47 North]	0.0	0.00	0.00	A	2.92	A	136 % [C - B1108 East]
B - Green Access	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
C - B1108 East	0.2	1.99	0.18	A				0.6	2.55	0.36	A			
E - B1108 West	0.4	3.43	0.30	A				0.6	3.78	0.38	A			
F - A47 North	0.3	2.25	0.20	A				0.2	2.23	0.15	A			
Existing Layout - 2025 - Forecast Background Flows														
A - Unnamed Road	0.0	0.00	0.00	A	2.67	A	179 % [F - A47 North]	0.0	0.00	0.00	A	3.07	A	119 % [C - B1108 East]
B - Green Access	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
C - B1108 East	0.2	2.04	0.20	A				0.6	2.70	0.39	A			
E - B1108 West	0.5	3.55	0.32	A				0.7	3.98	0.41	A			
F - A47 North	0.3	2.34	0.22	A				0.2	2.31	0.17	A			
Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation														
A - Unnamed Road	0.0	0.00	0.00	A	2.70	A	174 % [F - A47 North]	0.0	0.00	0.00	A	3.30	A	108 % [E - B1108 West]
B - Green Access	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
C - B1108 East	0.2	2.05	0.20	A				0.7	2.80	0.40	A			
E - B1108 West	0.5	3.59	0.33	A				0.8	4.32	0.45	A			
F - A47 North	0.3	2.36	0.23	A				0.2	2.39	0.18	A			
Existing Layout - 2025 - Forecast Background Flows + SEP and DEP														
A - Unnamed Road	0.0	0.00	0.00	A	2.71	A	174 % [F - A47 North]	0.0	0.00	0.00	A	3.38	A	102 % [E - B1108 West]
B - Green Access	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
C - B1108 East	0.2	2.06	0.20	A				0.7	2.84	0.40	A			
E - B1108 West	0.5	3.61	0.33	A				0.9	4.45	0.47	A			
F - A47 North	0.3	2.36	0.23	A				0.2	2.42	0.18	A			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

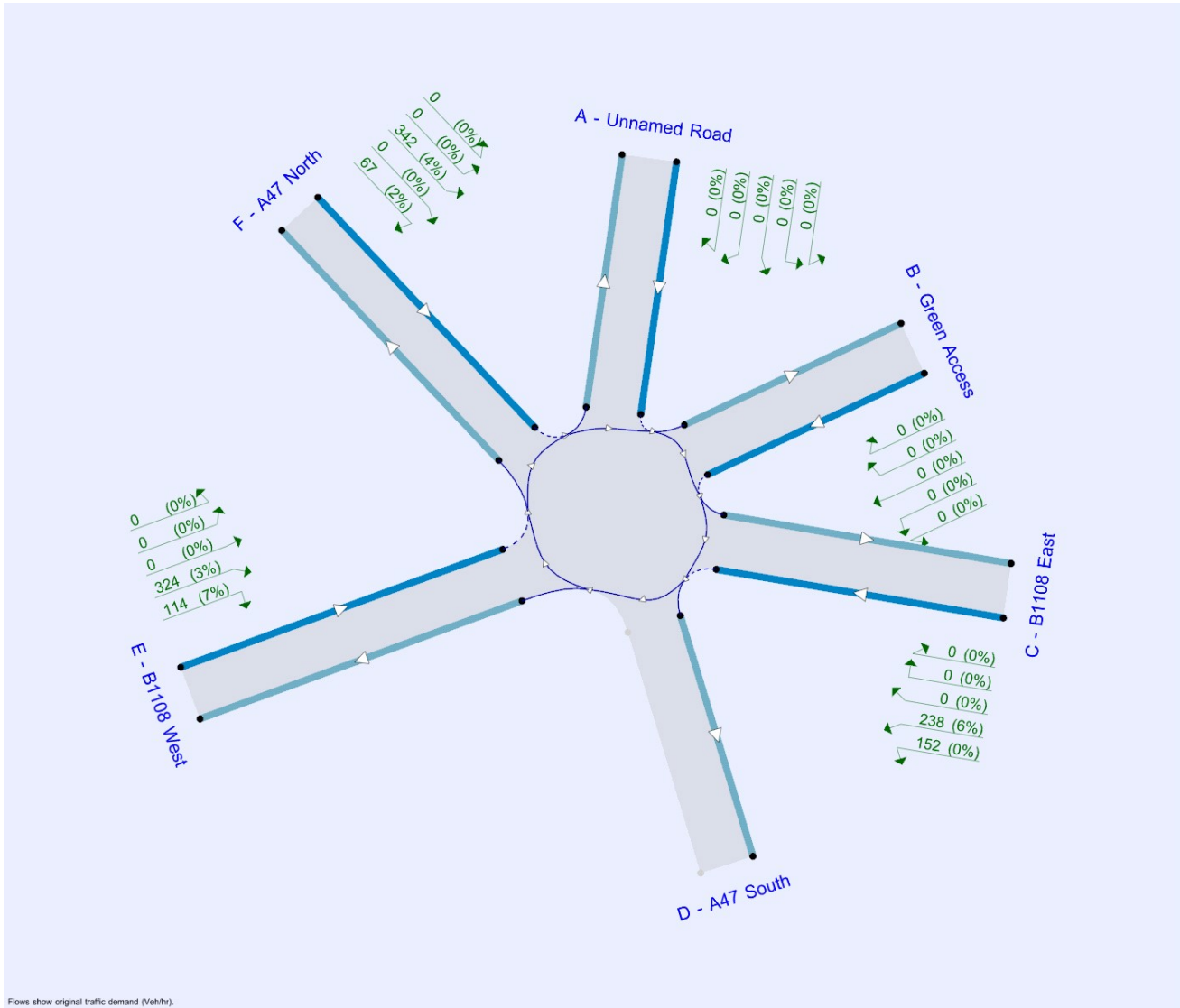
File summary

File Description

Title	Junction 10
Location	A47 / B1108 / Green Access
Site number	10
Date	11/04/2022
Version	1
Status	Existing Layout
Identifier	
Client	Equinor
Jobnumber	PB8164
Enumerator	CORPORATEROOT\921707
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓		✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021 - Construction Peak - Baseline	AM	ONE HOUR	06:15	07:45	15	✓	✓
D2	2021 - Construction Peak - Baseline	PM	ONE HOUR	17:10	18:40	15	✓	✓
D3	2025 - Forecast Background Flows	AM	ONE HOUR	06:15	07:45	15	✓	✓
D4	2025 - Forecast Background Flows	PM	ONE HOUR	17:10	18:40	15	✓	✓
D5	2025 - Forecast Background Flows + SEP or DEP in Isolation	AM	ONE HOUR	06:15	07:45	15	✓	✓
D6	2025 - Forecast Background Flows + SEP or DEP in Isolation	PM	ONE HOUR	17:10	18:40	15	✓	✓
D7	2025 - Forecast Background Flows + SEP and DEP	AM	ONE HOUR	06:15	07:45	15	✓	✓
D8	2025 - Forecast Background Flows + SEP and DEP	PM	ONE HOUR	17:10	18:40	15	✓	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A10	Existing Layout	✓	100.000	100.000

Existing Layout - 2021 - Construction Peak - Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - B1108 East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D1 - 2021 - Construction Peak - Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
10	A47 / B1108 / Green Access	Standard Roundabout		A, B, C, D, E, F	2.59	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	201	F - A47 North

Arms

Arms

Arm	Name	Description
A	Unnamed Road	
B	Green Access	
C	B1108 East	
D	A47 South	
E	B1108 West	
F	A47 North	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - Unnamed Road	2.00	3.16	3.4	9.8	44.4	15.5	
B - Green Access	4.39	4.71	2.1	6.9	44.1	30.5	
C - B1108 East	3.08	9.10	56.3	26.2	44.4	16.0	
D - A47 South							✓
E - B1108 West	3.83	7.83	5.5	55.0	44.4	35.0	
F - A47 North	8.03	8.03	0.0	16.2	44.4	26.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Unnamed Road	0.448	773
B - Green Access	0.517	1264
C - B1108 East	0.791	2430
D - A47 South		
E - B1108 West	0.604	1546
F - A47 North	0.775	2439

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)	Results for central hour only	Run automatically
D1	2021 - Construction Peak - Baseline	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Unnamed Road		ONE HOUR	✓	0	100.000
B - Green Access		ONE HOUR	✓	0	100.000
C - B1108 East		ONE HOUR	✓	363	100.000
D - A47 South					
E - B1108 West		ONE HOUR	✓	405	100.000
F - A47 North		ONE HOUR	✓	373	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A - Unnamed Road	B - Green Access	C - B1108 East	D - A47 South	E - B1108 West	F - A47 North
From	A - Unnamed Road	0	0	0	0	0	0
	B - Green Access	0	0	0	0	0	0
	C - B1108 East	0	0	1	141	221	0
	D - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E - B1108 West	0	0	301	103	1	0
	F - A47 North	0	0	317	0	56	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A - Unnamed Road	B - Green Access	C - B1108 East	D - A47 South	E - B1108 West	F - A47 North
From	A - Unnamed Road	0	0	0	0	0	0
	B - Green Access	0	0	0	0	0	0
	C - B1108 East	0	0	0	0	6	0
	D - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E - B1108 West	0	0	3	5	0	0
	F - A47 North	0	0	4	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Unnamed Road	0.00	0.00	0.0	~1	A	0	0
B - Green Access	0.00	0.00	0.0	~1	A	0	0
C - B1108 East	0.18	1.99	0.2	0.5	A	363	363
D - A47 South							
E - B1108 West	0.30	3.43	0.4	1.7	A	405	405
F - A47 North	0.20	2.25	0.3	0.5	A	373	373

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	700	449	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	700	890	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	326	82	144	2233	0.146	326	556	0.1	0.2	1.887	A
D - A47 South			251				219				
E - B1108 West	364	91	0.90	1494	0.244	364	250	0.3	0.3	3.186	A
F - A47 North	335	84	365	2074	0.162	335	0	0.2	0.2	2.070	A

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	857	376	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	857	806	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	400	100	176	2207	0.181	399	681	0.2	0.2	1.991	A
D - A47 South			307				268				
E - B1108 West	446	111	1	1494	0.299	446	306	0.3	0.4	3.432	A
F - A47 North	411	103	447	2010	0.204	410	0	0.2	0.3	2.249	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	858	376	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	858	805	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	400	100	176	2207	0.181	400	682	0.2	0.2	1.991	A
D - A47 South			307				269				
E - B1108 West	446	111	1	1494	0.299	446	306	0.4	0.4	3.435	A
F - A47 North	411	103	447	2010	0.204	411	0	0.3	0.3	2.250	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	701	448	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	701	889	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	326	82	144	2232	0.146	327	557	0.2	0.2	1.891	A
D - A47 South			251				220				
E - B1108 West	364	91	0.90	1494	0.244	364	250	0.4	0.3	3.190	A
F - A47 North	335	84	365	2073	0.162	336	0	0.3	0.2	2.071	A

Queue Variation Results for each time segment

06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.17	0.00	0.00	0.17	0.17			N/A	N/A
D - A47 South									
E - B1108 West	0.32	0.00	0.00	0.32	0.32			N/A	N/A
F - A47 North	0.19	0.00	0.00	0.19	0.19			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.22	0.03	0.25	0.45	0.48			N/A	N/A
D - A47 South									
E - B1108 West	0.42	0.03	0.25	0.45	0.48			N/A	N/A
F - A47 North	0.26	0.03	0.25	0.45	0.48			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.22	0.03	0.25	0.45	0.48			N/A	N/A
D - A47 South									
E - B1108 West	0.42	0.03	0.32	1.34	1.70			N/A	N/A
F - A47 North	0.26	0.03	0.26	0.47	0.50			N/A	N/A

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.17	0.00	0.00	0.17	0.17			N/A	N/A
D - A47 South									
E - B1108 West	0.32	0.00	0.00	0.32	0.32			N/A	N/A
F - A47 North	0.19	0.00	0.00	0.19	0.19			N/A	N/A

Existing Layout - 2021 - Construction Peak - Baseline , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - B1108 East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D2 - 2021 - Construction Peak - Baseline , PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
10	A47 / B1108 / Green Access	Standard Roundabout		A, B, C, D, E, F	2.92	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	136	C - B1108 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D2	2021 - Construction Peak - Baseline	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Unnamed Road		ONE HOUR	✓	0	100.000
B - Green Access		ONE HOUR	✓	0	100.000
C - B1108 East		ONE HOUR	✓	707	100.000
D - A47 South					
E - B1108 West		ONE HOUR	✓	530	100.000
F - A47 North		ONE HOUR	✓	269	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A - Unnamed Road	B - Green Access	C - B1108 East	D - A47 South	E - B1108 West	F - A47 North
From	A - Unnamed Road	0	0	0	0	0	0
	B - Green Access	0	0	0	0	0	0
	C - B1108 East	0	0	1	256	450	0
	D - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E - B1108 West	0	0	377	152	1	0
	F - A47 North	0	0	184	0	85	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A - Unnamed Road	B - Green Access	C - B1108 East	D - A47 South	E - B1108 West	F - A47 North
From	A - Unnamed Road	0	0	0	0	0	0
	B - Green Access	0	0	0	0	0	0
	C - B1108 East	0	0	0	0	2	0
	D - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E - B1108 West	0	0	1	1	0	0
	F - A47 North	0	0	5	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Unnamed Road	0.00	0.00	0.0	~1	A	0	0
B - Green Access	0.00	0.00	0.0	~1	A	0	0
C - B1108 East	0.36	2.55	0.6	2.6	A	707	707
D - A47 South							
E - B1108 West	0.38	3.78	0.6	2.6	A	530	530
F - A47 North	0.15	2.23	0.2	0.5	A	269	269

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	719	446	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	719	886	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	636	159	214	2228	0.285	635	505	0.3	0.4	2.259	A
D - A47 South			482				367				
E - B1108 West	476	119	0.90	1535	0.311	476	482	0.3	0.4	3.401	A
F - A47 North	242	60	477	1993	0.121	242	0	0.1	0.1	2.055	A

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	880	372	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	880	801	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	778	195	262	2191	0.355	778	618	0.4	0.5	2.546	A
D - A47 South			591				449				
E - B1108 West	584	146	1	1534	0.380	583	590	0.4	0.6	3.782	A
F - A47 North	296	74	584	1912	0.155	296	0	0.1	0.2	2.227	A

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	881	372	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	881	801	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	778	195	262	2191	0.355	778	619	0.5	0.6	2.548	A
D - A47 South			591				449				
E - B1108 West	584	146	1	1534	0.380	584	590	0.6	0.6	3.785	A
F - A47 North	296	74	585	1912	0.155	296	0	0.2	0.2	2.228	A

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	720	445	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	720	885	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	636	159	214	2228	0.285	636	506	0.6	0.4	2.261	A
D - A47 South			483				367				
E - B1108 West	476	119	0.90	1535	0.311	477	482	0.6	0.5	3.405	A
F - A47 North	242	60	478	1992	0.121	242	0	0.2	0.1	2.058	A

Queue Variation Results for each time segment
17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.40	0.00	0.00	0.40	0.40			N/A	N/A
D - A47 South									
E - B1108 West	0.45	0.00	0.00	0.45	0.45			N/A	N/A
F - A47 North	0.14	0.00	0.00	0.14	0.14			N/A	N/A

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.55	0.03	0.25	0.55	0.55			N/A	N/A
D - A47 South									
E - B1108 West	0.61	0.03	0.25	0.61	0.61			N/A	N/A
F - A47 North	0.18	0.03	0.25	0.46	0.48			N/A	N/A

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.55	0.03	0.30	1.39	2.58			N/A	N/A
D - A47 South									
E - B1108 West	0.61	0.03	0.29	1.06	2.63			N/A	N/A
F - A47 North	0.18	0.03	0.25	0.45	0.48			N/A	N/A

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.40	0.00	0.00	0.40	0.40			N/A	N/A
D - A47 South									
E - B1108 West	0.45	0.00	0.00	0.45	0.45			N/A	N/A
F - A47 North	0.14	0.00	0.00	0.14	0.14			N/A	N/A

Existing Layout - 2025 - Forecast Background Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - B1108 East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D3 - 2025 - Forecast Background Flows, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
10	A47 / B1108 / Green Access	Standard Roundabout		A, B, C, D, E, F	2.67	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	179	F - A47 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D3	2025 - Forecast Background Flows	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Unnamed Road		ONE HOUR	✓	0	100.000
B - Green Access		ONE HOUR	✓	0	100.000
C - B1108 East		ONE HOUR	✓	391	100.000
D - A47 South					
E - B1108 West		ONE HOUR	✓	436	100.000
F - A47 North		ONE HOUR	✓	402	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A - Unnamed Road	B - Green Access	C - B1108 East	D - A47 South	E - B1108 West	F - A47 North
From	A - Unnamed Road	0	0	0	0	0	0
	B - Green Access	0	0	0	0	0	0
	C - B1108 East	0	0	1	152	238	0
	D - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E - B1108 West	0	0	324	111	1	0
	F - A47 North	0	0	342	0	60	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A - Unnamed Road	B - Green Access	C - B1108 East	D - A47 South	E - B1108 West	F - A47 North
From	A - Unnamed Road	0	0	0	0	0	0
	B - Green Access	0	0	0	0	0	0
	C - B1108 East	0	0	0	0	6	0
	D - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E - B1108 West	0	0	3	5	0	0
	F - A47 North	0	0	4	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Unnamed Road	0.00	0.00	0.0	~1	A	0	0
B - Green Access	0.00	0.00	0.0	~1	A	0	0
C - B1108 East	0.20	2.04	0.2	0.5	A	391	391
D - A47 South							
E - B1108 West	0.32	3.55	0.5	2.0	A	436	436
F - A47 North	0.22	2.34	0.3	1.1	A	402	402

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	754	424	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	754	861	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	352	88	155	2224	0.158	351	599	0.2	0.2	1.922	A
D - A47 South			270				236				
E - B1108 West	392	98	0.90	1494	0.262	392	269	0.3	0.4	3.266	A
F - A47 North	361	90	393	2052	0.176	361	0	0.2	0.2	2.128	A

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	923	345	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	923	770	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	431	108	189	2197	0.196	430	734	0.2	0.2	2.037	A
D - A47 South			330				289				
E - B1108 West	480	120	1	1494	0.321	480	329	0.4	0.5	3.548	A
F - A47 North	443	111	481	1984	0.223	442	0	0.2	0.3	2.335	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	924	345	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	924	770	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	431	108	189	2197	0.196	430	734	0.2	0.2	2.037	A
D - A47 South			330				290				
E - B1108 West	480	120	1	1494	0.321	480	329	0.5	0.5	3.550	A
F - A47 North	443	111	481	1984	0.223	443	0	0.3	0.3	2.335	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	755	423	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	755	860	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	352	88	155	2224	0.158	352	600	0.2	0.2	1.922	A
D - A47 South			270				237				
E - B1108 West	392	98	0.90	1494	0.262	392	269	0.5	0.4	3.269	A
F - A47 North	361	90	393	2052	0.176	362	0	0.3	0.2	2.130	A

Queue Variation Results for each time segment
06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.19	0.00	0.00	0.19	0.19			N/A	N/A
D - A47 South									
E - B1108 West	0.35	0.00	0.00	0.35	0.35			N/A	N/A
F - A47 North	0.21	0.00	0.00	0.21	0.21			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.24	0.03	0.25	0.45	0.48			N/A	N/A
D - A47 South									
E - B1108 West	0.47	0.03	0.25	0.47	0.48			N/A	N/A
F - A47 North	0.29	0.03	0.25	0.45	0.48			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.24	0.03	0.25	0.46	0.48			N/A	N/A
D - A47 South									
E - B1108 West	0.47	0.03	0.31	1.38	2.04			N/A	N/A
F - A47 North	0.29	0.03	0.29	0.75	1.13			N/A	N/A

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.19	0.00	0.00	0.19	0.19			N/A	N/A
D - A47 South									
E - B1108 West	0.36	0.00	0.00	0.36	0.36			N/A	N/A
F - A47 North	0.21	0.00	0.00	0.21	0.21			N/A	N/A

Existing Layout - 2025 - Forecast Background Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - B1108 East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D4 - 2025 - Forecast Background Flows, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
10	A47 / B1108 / Green Access	Standard Roundabout		A, B, C, D, E, F	3.07	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	119	C - B1108 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D4	2025 - Forecast Background Flows	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Unnamed Road		ONE HOUR	✓	0	100.000
B - Green Access		ONE HOUR	✓	0	100.000
C - B1108 East		ONE HOUR	✓	763	100.000
D - A47 South					
E - B1108 West		ONE HOUR	✓	572	100.000
F - A47 North		ONE HOUR	✓	291	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A - Unnamed Road	B - Green Access	C - B1108 East	D - A47 South	E - B1108 West	F - A47 North
From	A - Unnamed Road	0	0	0	0	0	0
	B - Green Access	0	0	0	0	0	0
	C - B1108 East	0	0	1	276	486	0
	D - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E - B1108 West	0	0	407	164	1	0
	F - A47 North	0	0	199	0	92	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A - Unnamed Road	B - Green Access	C - B1108 East	D - A47 South	E - B1108 West	F - A47 North
From	A - Unnamed Road	0	0	0	0	0	0
	B - Green Access	0	0	0	0	0	0
	C - B1108 East	0	0	0	0	2	0
	D - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E - B1108 West	0	0	1	1	0	0
	F - A47 North	0	0	5	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Unnamed Road	0.00	0.00	0.0	~1	A	0	0
B - Green Access	0.00	0.00	0.0	~1	A	0	0
C - B1108 East	0.39	2.70	0.6	2.8	A	763	763
D - A47 South							
E - B1108 West	0.41	3.98	0.7	2.5	A	572	572
F - A47 North	0.17	2.31	0.2	0.5	A	291	291

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	776	420	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	776	856	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	686	171	231	2215	0.310	686	545	0.3	0.4	2.353	A
D - A47 South			521				395				
E - B1108 West	514	129	0.90	1535	0.335	514	520	0.4	0.5	3.524	A
F - A47 North	262	65	515	1964	0.133	261	0	0.1	0.2	2.113	A

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	950	340	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	950	764	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	840	210	283	2175	0.386	839	668	0.4	0.6	2.694	A
D - A47 South			638				484				
E - B1108 West	630	157	1	1534	0.410	629	637	0.5	0.7	3.973	A
F - A47 North	320	80	630	1877	0.171	320	0	0.2	0.2	2.311	A

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	951	340	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	951	764	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	840	210	283	2174	0.386	840	668	0.6	0.6	2.697	A
D - A47 South			639				484				
E - B1108 West	630	157	1	1534	0.410	630	637	0.7	0.7	3.979	A
F - A47 North	320	80	631	1877	0.171	320	0	0.2	0.2	2.312	A

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	778	419	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	778	855	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	686	171	231	2215	0.310	687	546	0.6	0.5	2.357	A
D - A47 South			522				396				
E - B1108 West	514	129	0.90	1535	0.335	515	521	0.7	0.5	3.535	A
F - A47 North	262	65	516	1963	0.133	262	0	0.2	0.2	2.117	A

Queue Variation Results for each time segment
17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.45	0.00	0.00	0.45	0.45			N/A	N/A
D - A47 South									
E - B1108 West	0.50	0.50	1.00	1.40	1.45			N/A	N/A
F - A47 North	0.15	0.00	0.00	0.15	0.15			N/A	N/A

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.63	0.03	0.25	0.63	0.63			N/A	N/A
D - A47 South									
E - B1108 West	0.69	0.03	0.25	0.69	0.69			N/A	N/A
F - A47 North	0.21	0.03	0.25	0.46	0.48			N/A	N/A

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.63	0.03	0.29	1.13	2.75			N/A	N/A
D - A47 South									
E - B1108 West	0.69	0.03	0.28	0.69	2.49			N/A	N/A
F - A47 North	0.21	0.03	0.25	0.45	0.48			N/A	N/A

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.45	0.00	0.00	0.45	0.45			N/A	N/A
D - A47 South									
E - B1108 West	0.51	0.51	1.00	1.40	1.45			N/A	N/A
F - A47 North	0.15	0.00	0.00	0.15	0.15			N/A	N/A

Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - B1108 East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D5 - 2025 - Forecast Background Flows + SEP or DEP in Isolation , AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
10	A47 / B1108 / Green Access	Standard Roundabout		A, B, C, D, E, F	2.70	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	174	F - A47 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D5	2025 - Forecast Background Flows + SEP or DEP in Isolation	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Unnamed Road		ONE HOUR	✓	0	100.000
B - Green Access		ONE HOUR	✓	0	100.000
C - B1108 East		ONE HOUR	✓	391	100.000
D - A47 South					
E - B1108 West		ONE HOUR	✓	439	100.000
F - A47 North		ONE HOUR	✓	409	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A - Unnamed Road	B - Green Access	C - B1108 East	D - A47 South	E - B1108 West	F - A47 North
From	A - Unnamed Road	0	0	0	0	0	0
	B - Green Access	0	0	0	0	0	0
	C - B1108 East	0	0	1	152	238	0
	D - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E - B1108 West	0	0	324	114	1	0
	F - A47 North	0	0	342	0	67	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A - Unnamed Road	B - Green Access	C - B1108 East	D - A47 South	E - B1108 West	F - A47 North
From	A - Unnamed Road	0	0	0	0	0	0
	B - Green Access	0	0	0	0	0	0
	C - B1108 East	0	0	0	0	6	0
	D - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E - B1108 West	0	0	3	7	0	0
	F - A47 North	0	0	4	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Unnamed Road	0.00	0.00	0.0	~1	A	0	0
B - Green Access	0.00	0.00	0.0	~1	A	0	0
C - B1108 East	0.20	2.05	0.2	0.5	A	391	391
D - A47 South							
E - B1108 West	0.33	3.59	0.5	2.1	A	439	439
F - A47 North	0.23	2.36	0.3	1.2	A	409	409

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	763	418	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	763	854	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	352	88	164	2214	0.159	351	599	0.2	0.2	1.932	A
D - A47 South			276				239				
E - B1108 West	395	99	0.90	1485	0.266	394	275	0.3	0.4	3.301	A
F - A47 North	368	92	395	2042	0.180	367	0	0.2	0.2	2.150	A

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	934	338	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	934	762	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	431	108	200	2185	0.197	430	734	0.2	0.2	2.051	A
D - A47 South			338				293				
E - B1108 West	483	121	1	1485	0.326	483	337	0.4	0.5	3.592	A
F - A47 North	450	113	484	1973	0.228	450	0	0.2	0.3	2.364	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	935	338	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	935	762	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	431	108	200	2185	0.197	430	734	0.2	0.2	2.052	A
D - A47 South			338				293				
E - B1108 West	483	121	1	1485	0.326	483	337	0.5	0.5	3.594	A
F - A47 North	450	113	484	1972	0.228	450	0	0.3	0.3	2.364	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	764	417	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	764	853	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	352	88	164	2214	0.159	352	600	0.2	0.2	1.933	A
D - A47 South			276				239				
E - B1108 West	395	99	0.90	1485	0.266	395	275	0.5	0.4	3.304	A
F - A47 North	368	92	396	2041	0.180	368	0	0.3	0.2	2.151	A

Queue Variation Results for each time segment
06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.19	0.00	0.00	0.19	0.19			N/A	N/A
D - A47 South									
E - B1108 West	0.36	0.00	0.00	0.36	0.36			N/A	N/A
F - A47 North	0.22	0.00	0.00	0.22	0.22			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.24	0.03	0.25	0.45	0.48			N/A	N/A
D - A47 South									
E - B1108 West	0.48	0.03	0.25	0.48	0.48			N/A	N/A
F - A47 North	0.29	0.03	0.25	0.45	0.48			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.25	0.03	0.26	0.46	0.49			N/A	N/A
D - A47 South									
E - B1108 West	0.48	0.03	0.30	1.38	2.13			N/A	N/A
F - A47 North	0.30	0.03	0.30	0.86	1.19			N/A	N/A

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.19	0.00	0.00	0.19	0.19			N/A	N/A
D - A47 South									
E - B1108 West	0.36	0.00	0.00	0.36	0.36			N/A	N/A
F - A47 North	0.22	0.00	0.00	0.22	0.22			N/A	N/A

Existing Layout - 2025 - Forecast Background Flows + SEP or DEP in Isolation , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - B1108 East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D6 - 2025 - Forecast Background Flows + SEP or DEP in Isolation , PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
10	A47 / B1108 / Green Access	Standard Roundabout		A, B, C, D, E, F	3.30	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	108	E - B1108 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D6	2025 - Forecast Background Flows + SEP or DEP in Isolation	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Unnamed Road		ONE HOUR	✓	0	100.000
B - Green Access		ONE HOUR	✓	0	100.000
C - B1108 East		ONE HOUR	✓	763	100.000
D - A47 South					
E - B1108 West		ONE HOUR	✓	629	100.000
F - A47 North		ONE HOUR	✓	291	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A - Unnamed Road	B - Green Access	C - B1108 East	D - A47 South	E - B1108 West	F - A47 North
From	A - Unnamed Road	0	0	0	0	0	0
	B - Green Access	0	0	0	0	0	0
	C - B1108 East	0	0	1	276	486	0
	D - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E - B1108 West	0	0	407	221	1	0
	F - A47 North	0	0	199	0	92	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A - Unnamed Road	B - Green Access	C - B1108 East	D - A47 South	E - B1108 West	F - A47 North
From	A - Unnamed Road	0	0	0	0	0	0
	B - Green Access	0	0	0	0	0	0
	C - B1108 East	0	0	0	0	2	0
	D - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E - B1108 West	0	0	1	1	0	0
	F - A47 North	0	0	5	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Unnamed Road	0.00	0.00	0.0	~1	A	0	0
B - Green Access	0.00	0.00	0.0	~1	A	0	0
C - B1108 East	0.40	2.80	0.7	2.7	A	763	763
D - A47 South							
E - B1108 West	0.45	4.32	0.8	1.8	A	629	629
F - A47 North	0.18	2.39	0.2	0.5	A	291	291

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	827	395	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	827	827	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	686	171	282	2175	0.315	685	545	0.3	0.5	2.417	A
D - A47 South			521				446				
E - B1108 West	565	141	0.90	1525	0.371	565	520	0.4	0.6	3.748	A
F - A47 North	262	65	566	1923	0.136	261	0	0.1	0.2	2.166	A

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	1013	310	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	1013	729	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	840	210	345	2125	0.395	839	668	0.5	0.7	2.798	A
D - A47 South			638				547				
E - B1108 West	693	173	1	1525	0.454	692	637	0.6	0.8	4.316	A
F - A47 North	320	80	693	1827	0.175	320	0	0.2	0.2	2.389	A

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	1014	309	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	1014	729	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	840	210	346	2125	0.395	840	668	0.7	0.7	2.801	A
D - A47 South			639				547				
E - B1108 West	693	173	1	1525	0.454	693	637	0.8	0.8	4.325	A
F - A47 North	320	80	694	1826	0.175	320	0	0.2	0.2	2.390	A

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	829	394	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	829	826	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	686	171	283	2174	0.315	687	546	0.7	0.5	2.422	A
D - A47 South			522				447				
E - B1108 West	565	141	0.90	1525	0.371	566	521	0.8	0.6	3.761	A
F - A47 North	262	65	567	1922	0.136	262	0	0.2	0.2	2.168	A

Queue Variation Results for each time segment
17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.46	0.00	0.00	0.46	0.46			N/A	N/A
D - A47 South									
E - B1108 West	0.59	0.10	0.83	1.37	1.43			N/A	N/A
F - A47 North	0.16	0.00	0.00	0.16	0.16			N/A	N/A

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.65	0.03	0.25	0.65	0.65			N/A	N/A
D - A47 South									
E - B1108 West	0.83	0.03	0.25	0.83	0.83			N/A	N/A
F - A47 North	0.21	0.03	0.25	0.46	0.48			N/A	N/A

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.65	0.03	0.29	1.03	2.74			N/A	N/A
D - A47 South									
E - B1108 West	0.83	0.03	0.27	0.83	1.85			N/A	N/A
F - A47 North	0.21	0.03	0.25	0.45	0.48			N/A	N/A

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.46	0.00	0.00	0.46	0.46			N/A	N/A
D - A47 South									
E - B1108 West	0.59	0.55	1.00	1.40	1.45			N/A	N/A
F - A47 North	0.16	0.00	0.00	0.16	0.16			N/A	N/A

Existing Layout - 2025 - Forecast Background Flows + SEP and DEP , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - B1108 East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D7 - 2025 - Forecast Background Flows + SEP and DEP , AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
10	A47 / B1108 / Green Access	Standard Roundabout		A, B, C, D, E, F	2.71	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	174	F - A47 North

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D7	2025 - Forecast Background Flows + SEP and DEP	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Unnamed Road		ONE HOUR	✓	0	100.000
B - Green Access		ONE HOUR	✓	0	100.000
C - B1108 East		ONE HOUR	✓	391	100.000
D - A47 South					
E - B1108 West		ONE HOUR	✓	440	100.000
F - A47 North		ONE HOUR	✓	411	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A - Unnamed Road	B - Green Access	C - B1108 East	D - A47 South	E - B1108 West	F - A47 North
From	A - Unnamed Road	0	0	0	0	0	0
	B - Green Access	0	0	0	0	0	0
	C - B1108 East	0	0	1	152	238	0
	D - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E - B1108 West	0	0	324	115	1	0
	F - A47 North	0	0	342	0	69	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A - Unnamed Road	B - Green Access	C - B1108 East	D - A47 South	E - B1108 West	F - A47 North
From	A - Unnamed Road	0	0	0	0	0	0
	B - Green Access	0	0	0	0	0	0
	C - B1108 East	0	0	0	0	6	0
	D - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E - B1108 West	0	0	3	8	0	0
	F - A47 North	0	0	4	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Unnamed Road	0.00	0.00	0.0	~1	A	0	0
B - Green Access	0.00	0.00	0.0	~1	A	0	0
C - B1108 East	0.20	2.06	0.2	0.5	A	391	391
D - A47 South							
E - B1108 West	0.33	3.61	0.5	2.2	A	440	440
F - A47 North	0.23	2.36	0.3	1.2	A	411	411

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	765	417	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	765	853	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	352	88	166	2212	0.159	351	599	0.2	0.2	1.935	A
D - A47 South			278				240				
E - B1108 West	396	99	0.90	1482	0.267	395	277	0.3	0.4	3.314	A
F - A47 North	369	92	396	2047	0.180	369	0	0.2	0.2	2.145	A

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	937	337	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	937	760	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	431	108	204	2181	0.197	430	734	0.2	0.2	2.055	A
D - A47 South			340				294				
E - B1108 West	484	121	1	1481	0.327	484	339	0.4	0.5	3.607	A
F - A47 North	453	113	485	1978	0.229	452	0	0.2	0.3	2.359	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	938	337	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	938	760	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	431	108	204	2181	0.197	430	734	0.2	0.2	2.056	A
D - A47 South			340				294				
E - B1108 West	484	121	1	1481	0.327	484	339	0.5	0.5	3.609	A
F - A47 North	453	113	486	1978	0.229	453	0	0.3	0.3	2.360	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	767	416	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	767	852	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	352	88	166	2211	0.159	352	600	0.2	0.2	1.937	A
D - A47 South			278				240				
E - B1108 West	396	99	0.90	1482	0.267	396	277	0.5	0.4	3.319	A
F - A47 North	369	92	397	2047	0.181	370	0	0.3	0.2	2.148	A

Queue Variation Results for each time segment
06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.19	0.00	0.00	0.19	0.19			N/A	N/A
D - A47 South									
E - B1108 West	0.36	0.00	0.00	0.36	0.36			N/A	N/A
F - A47 North	0.22	0.00	0.00	0.22	0.22			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.25	0.03	0.25	0.45	0.48			N/A	N/A
D - A47 South									
E - B1108 West	0.48	0.03	0.25	0.48	0.48			N/A	N/A
F - A47 North	0.30	0.03	0.25	0.45	0.48			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.25	0.03	0.26	0.46	0.49			N/A	N/A
D - A47 South									
E - B1108 West	0.48	0.03	0.30	1.37	2.16			N/A	N/A
F - A47 North	0.30	0.03	0.30	0.87	1.19			N/A	N/A

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.19	0.00	0.00	0.19	0.19			N/A	N/A
D - A47 South									
E - B1108 West	0.37	0.00	0.00	0.37	0.37			N/A	N/A
F - A47 North	0.22	0.00	0.00	0.22	0.22			N/A	N/A

Existing Layout - 2025 - Forecast Background Flows + SEP and DEP, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - B1108 East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D8 - 2025 - Forecast Background Flows + SEP and DEP, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
10	A47 / B1108 / Green Access	Standard Roundabout		A, B, C, D, E, F	3.38	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	102	E - B1108 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D8	2025 - Forecast Background Flows + SEP and DEP	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Unnamed Road		ONE HOUR	✓	0	100.000
B - Green Access		ONE HOUR	✓	0	100.000
C - B1108 East		ONE HOUR	✓	763	100.000
D - A47 South					
E - B1108 West		ONE HOUR	✓	650	100.000
F - A47 North		ONE HOUR	✓	291	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A - Unnamed Road	B - Green Access	C - B1108 East	D - A47 South	E - B1108 West	F - A47 North
From	A - Unnamed Road	0	0	0	0	0	0
	B - Green Access	0	0	0	0	0	0
	C - B1108 East	0	0	1	276	486	0
	D - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E - B1108 West	0	0	407	242	1	0
	F - A47 North	0	0	199	0	92	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A - Unnamed Road	B - Green Access	C - B1108 East	D - A47 South	E - B1108 West	F - A47 North
From	A - Unnamed Road	0	0	0	0	0	0
	B - Green Access	0	0	0	0	0	0
	C - B1108 East	0	0	0	0	2	0
	D - A47 South	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E - B1108 West	0	0	1	1	0	0
	F - A47 North	0	0	5	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Unnamed Road	0.00	0.00	0.0	~1	A	0	0
B - Green Access	0.00	0.00	0.0	~1	A	0	0
C - B1108 East	0.40	2.84	0.7	2.7	A	763	763
D - A47 South							
E - B1108 West	0.47	4.45	0.9	1.6	A	650	650
F - A47 North	0.18	2.42	0.2	0.5	A	291	291

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	846	386	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	846	817	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	686	171	301	2160	0.318	685	545	0.4	0.5	2.441	A
D - A47 South			521				465				
E - B1108 West	584	146	0.90	1525	0.383	584	520	0.5	0.6	3.823	A
F - A47 North	262	65	585	1909	0.137	261	0	0.1	0.2	2.185	A

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	1036	299	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	1036	717	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	840	210	368	2107	0.399	839	668	0.5	0.7	2.838	A
D - A47 South			638				570				
E - B1108 West	716	179	1	1525	0.469	715	637	0.6	0.9	4.438	A
F - A47 North	320	80	716	1810	0.177	320	0	0.2	0.2	2.417	A

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	1037	299	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	1037	717	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	840	210	369	2107	0.399	840	668	0.7	0.7	2.841	A
D - A47 South			639				570				
E - B1108 West	716	179	1	1525	0.469	716	637	0.9	0.9	4.448	A
F - A47 North	320	80	717	1809	0.177	320	0	0.2	0.2	2.418	A

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Unnamed Road	0	0	848	385	0.000	0	0	0.0	0.0	0.000	A
B - Green Access	0	0	848	816	0.000	0	0	0.0	0.0	0.000	A
C - B1108 East	686	171	302	2160	0.318	687	546	0.7	0.5	2.445	A
D - A47 South			522				466				
E - B1108 West	584	146	0.90	1525	0.383	585	521	0.9	0.6	3.837	A
F - A47 North	262	65	586	1908	0.137	262	0	0.2	0.2	2.189	A

Queue Variation Results for each time segment
17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.46	0.00	0.00	0.46	0.46			N/A	N/A
D - A47 South									
E - B1108 West	0.62	0.11	0.84	1.37	1.43			N/A	N/A
F - A47 North	0.16	0.00	0.00	0.16	0.16			N/A	N/A

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.66	0.03	0.25	0.66	0.66			N/A	N/A
D - A47 South									
E - B1108 West	0.88	0.03	0.25	0.88	0.88			N/A	N/A
F - A47 North	0.21	0.03	0.25	0.46	0.48			N/A	N/A

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.66	0.03	0.28	0.99	2.74			N/A	N/A
D - A47 South									
E - B1108 West	0.88	0.03	0.27	0.88	1.61			N/A	N/A
F - A47 North	0.21	0.03	0.25	0.45	0.48			N/A	N/A

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Unnamed Road	0.00	0.00	0.00	0.00	0.00			N/A	N/A
B - Green Access	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C - B1108 East	0.47	0.00	0.00	0.47	0.47			N/A	N/A
D - A47 South									
E - B1108 West	0.63	0.55	1.00	1.40	1.45			N/A	N/A
F - A47 North	0.16	0.00	0.00	0.16	0.16			N/A	N/A

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
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Filename: Junction 11 - Existing Layout - Construction Peaks.j9
Path: C:\Users\921707\Box\PB8164 Equinor DOW SS Ext\PB8164 Team\PB8164 Technical Data\E08 Transport\TD\Calcs\Modelling\J11
Report generation date: 14/04/2023 11:27:53

- » Existing Layout - 2021 - Construction Peak - Baseline, AM
- » Existing Layout - 2021 - Construction Peak - Baseline , PM
- » Existing Layout - 2025 - Forecast Background flows, AM
- » Existing Layout - 2025 - Forecast Background flows, PM
- » Existing Layout - 2025 - Forecast Background flows + SEP or DEP in Isolation , AM
- » Existing Layout - 2025 - Forecast Background flows + SEP or DEP in Isolation , PM
- » Existing Layout - 2025 - Forecast Background flows + SEP and DEP , AM
- » Existing Layout - 2025 - Forecast Background flows + SEP and DEP , PM

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Existing Layout - 2021 - Construction Peak - Baseline														
A - B1108 East	0.3	3.21	0.21	A	3.14	A	158 % [C - B1108 West]	0.7	4.11	0.40	A	3.79	A	94 % [C - B1108 West]
B - A47 South	0.2	2.08	0.14	A				0.4	2.69	0.28	A			
C - B1108 West	0.4	4.00	0.27	A				0.5	4.84	0.33	A			
Existing Layout - 2025 - Forecast Background flows														
A - B1108 East	0.3	3.28	0.23	A	3.24	A	140 % [C - B1108 West]	0.8	4.34	0.43	A	4.03	A	79 % [C - B1108 West]
B - A47 South	0.2	2.13	0.15	A				0.4	2.86	0.31	A			
C - B1108 West	0.4	4.18	0.29	A				0.6	5.22	0.36	A			
Existing Layout - 2025 - Forecast Background flows + SEP or DEP in Isolation														
A - B1108 East	0.3	3.32	0.24	A	3.27	A	135 % [C - B1108 West]	0.8	4.37	0.44	A	4.32	A	62 % [C - B1108 West]
B - A47 South	0.2	2.24	0.19	A				0.5	2.90	0.31	A			
C - B1108 West	0.4	4.30	0.30	A				0.8	5.97	0.43	A			
Existing Layout - 2025 - Forecast Background flows + SEP and DEP														
A - B1108 East	0.3	3.32	0.24	A	3.26	A	134 % [C - B1108 West]	0.8	4.37	0.44	A	4.42	A	57 % [C - B1108 West]
B - A47 South	0.2	2.26	0.20	A				0.5	2.91	0.31	A			
C - B1108 West	0.4	4.30	0.30	A				0.8	6.24	0.46	A			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

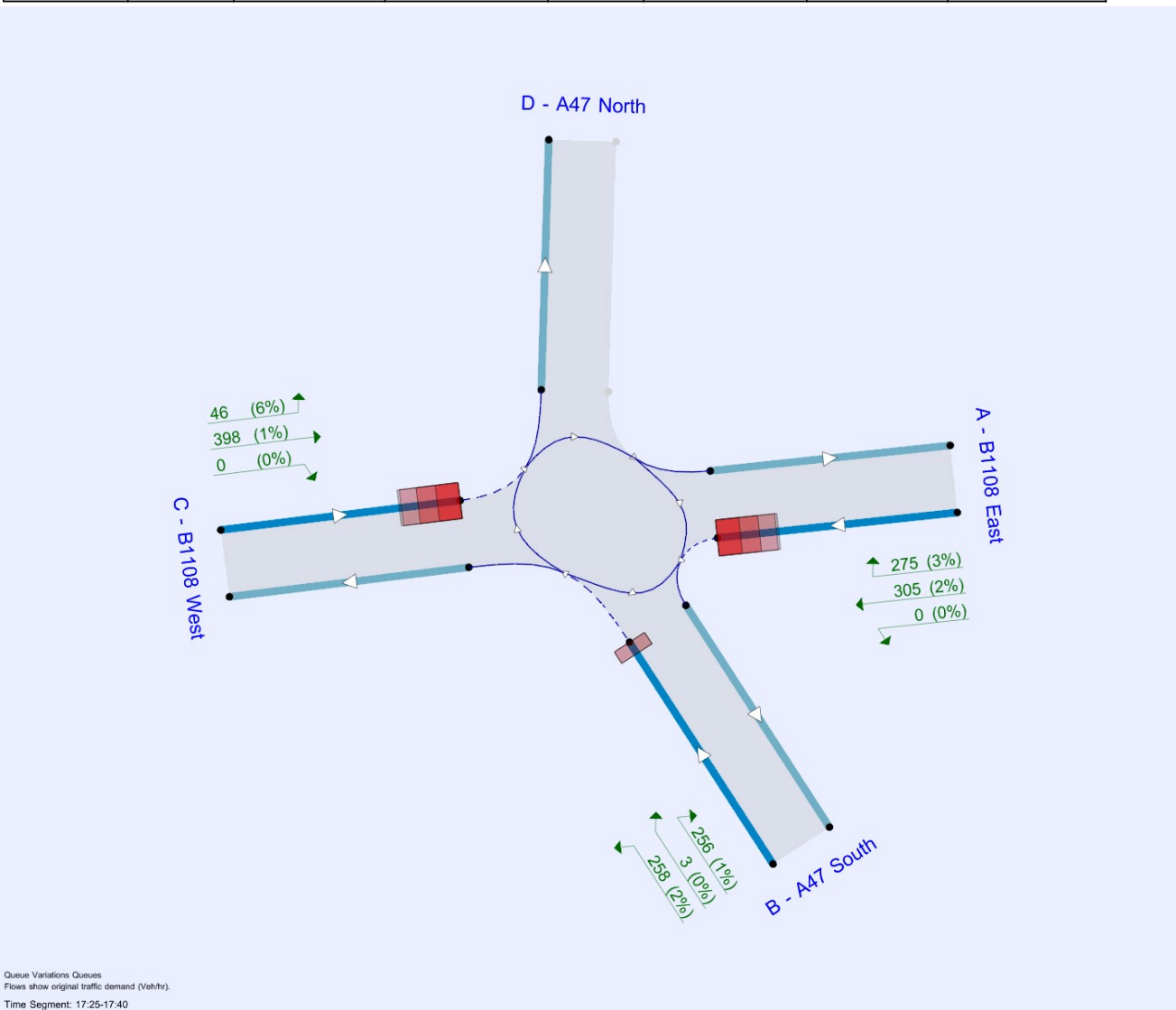
File summary

File Description

Title	Junction 11
Location	B1108 / A47
Site number	11
Date	11/04/2022
Version	1
Status	Existing Layout
Identifier	
Client	Equinor
Jobnumber	PB8164
Enumerator	CORPORATEROOT\921707
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓		✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021 - Construction Peak - Baseline	AM	ONE HOUR	06:15	07:45	15	✓	✓
D2	2021 - Construction Peak - Baseline	PM	ONE HOUR	17:10	18:40	15	✓	✓
D3	2025 - Forecast Background flows	AM	ONE HOUR	06:15	07:45	15	✓	✓
D4	2025 - Forecast Background flows	PM	ONE HOUR	17:10	18:40	15	✓	✓
D5	2025 - Forecast Background flows + SEP or DEP in Isolation	AM	ONE HOUR	06:15	07:45	15	✓	✓
D6	2025 - Forecast Background flows + SEP or DEP in Isolation	PM	ONE HOUR	17:10	18:40	15	✓	✓
D7	2025 - Forecast Background flows + SEP and DEP	AM	ONE HOUR	06:15	07:45	15	✓	✓
D8	2025 - Forecast Background flows + SEP and DEP	PM	ONE HOUR	17:10	18:40	15	✓	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A11	Existing Layout	✓	100.000	100.000

Existing Layout - 2021 - Construction Peak - Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D1 - 2021 - Construction Peak - Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
7	B1108 / A47	Standard Roundabout		A, B, C, D	3.14	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	158	C - B1108 West

Arms

Arms

Arm	Name	Description
A	B1108 East	
B	A47 South	
C	B1108 West	
D	A47 North	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - B1108 East	3.75	7.02	7.2	31.6	43.0	44.0	
B - A47 South	6.88	7.86	4.0	27.2	43.0	22.0	
C - B1108 West	3.10	6.96	7.4	24.9	43.0	18.5	
D - A47 North							✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - B1108 East	0.584	1494
B - A47 South	0.773	2342
C - B1108 West	0.598	1445
D - A47 North		

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)	Results for central hour only	Run automatically
D1	2021 - Construction Peak - Baseline	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - B1108 East		ONE HOUR	✓	278	100.000
B - A47 South		ONE HOUR	✓	259	100.000
C - B1108 West		ONE HOUR	✓	300	100.000
D - A47 North					

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - B1108 East	B - A47 South	C - B1108 West	D - A47 North
From	A - B1108 East	0	0	169	109
	B - A47 South	156	0	98	5
	C - B1108 West	249	0	0	51
	D - A47 North	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - B1108 East	B - A47 South	C - B1108 West	D - A47 North
From	A - B1108 East	0	0	5	4
	B - A47 South	5	0	3	0
	C - B1108 West	3	0	0	0
	D - A47 North	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - B1108 East	0.21	3.21	0.3	1.2	A	278	278
B - A47 South	0.14	2.08	0.2	0.5	A	259	259
C - B1108 West	0.27	4.00	0.4	1.1	A	300	300
D - A47 North							

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	250	62	0	1427	0.175	250	364	0.2	0.2	3.057	A
B - A47 South	233	58	250	2060	0.113	233	0	0.1	0.1	1.970	A
C - B1108 West	270	67	243	1264	0.213	269	240	0.2	0.3	3.618	A
D - A47 North			364				148				

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	306	77	0	1427	0.215	306	446	0.2	0.3	3.211	A
B - A47 South	285	71	306	2016	0.141	285	0	0.1	0.2	2.079	A
C - B1108 West	330	83	297	1231	0.268	330	294	0.3	0.4	3.992	A
D - A47 North			446				182				

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	306	77	0	1427	0.215	306	446	0.3	0.3	3.211	A
B - A47 South	285	71	306	2016	0.141	285	0	0.2	0.2	2.079	A
C - B1108 West	330	83	297	1231	0.268	330	294	0.4	0.4	3.996	A
D - A47 North			446				182				

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	250	62	0	1427	0.175	250	364	0.3	0.2	3.061	A
B - A47 South	233	58	250	2060	0.113	233	0	0.2	0.1	1.972	A
C - B1108 West	270	67	243	1264	0.213	270	240	0.4	0.3	3.621	A
D - A47 North			364				148				

Queue Variation Results for each time segment

06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.21	0.00	0.00	0.21	0.21			N/A	N/A
B - A47 South	0.13	0.00	0.00	0.13	0.13			N/A	N/A
C - B1108 West	0.27	0.00	0.00	0.27	0.27			N/A	N/A
D - A47 North									

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.27	0.03	0.25	0.45	0.48			N/A	N/A
B - A47 South	0.16	0.03	0.25	0.46	0.48			N/A	N/A
C - B1108 West	0.36	0.03	0.25	0.45	0.48			N/A	N/A
D - A47 North									

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.27	0.03	0.29	0.80	1.16			N/A	N/A
B - A47 South	0.16	0.00	0.00	0.16	0.16			N/A	N/A
C - B1108 West	0.37	0.03	0.32	1.07	1.07			N/A	N/A
D - A47 North									

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.21	0.00	0.00	0.21	0.21			N/A	N/A
B - A47 South	0.13	0.00	0.00	0.13	0.13			N/A	N/A
C - B1108 West	0.27	0.00	0.00	0.27	0.27			N/A	N/A
D - A47 North									

Existing Layout - 2021 - Construction Peak - Baseline , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2021 - Construction Peak - Baseline , PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
7	B1108 / A47	Standard Roundabout		A, B, C, D	3.79	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	94	C - B1108 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D2	2021 - Construction Peak - Baseline	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - B1108 East		ONE HOUR	✓	536	100.000
B - A47 South		ONE HOUR	✓	475	100.000
C - B1108 West		ONE HOUR	✓	329	100.000
D - A47 North					

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - B1108 East	B - A47 South	C - B1108 West	D - A47 North
From	A - B1108 East	0	0	281	255
	B - A47 South	237	0	235	3
	C - B1108 West	293	0	2	34
	D - A47 North	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - B1108 East	B - A47 South	C - B1108 West	D - A47 North
From	A - B1108 East	0	0	1	3
	B - A47 South	1	0	0	0
	C - B1108 West	0	0	0	3
	D - A47 North	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - B1108 East	0.40	4.11	0.7	2.6	A	536	536
B - A47 South	0.28	2.69	0.4	1.1	A	475	475
C - B1108 West	0.33	4.84	0.5	2.1	A	329	329
D - A47 North							

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	482	120	2	1465	0.329	481	476	0.4	0.5	3.656	A
B - A47 South	427	107	483	1945	0.220	427	0	0.2	0.3	2.370	A
C - B1108 West	296	74	445	1167	0.253	295	465	0.3	0.3	4.130	A
D - A47 North			478				262				

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	590	148	2	1465	0.403	589	583	0.5	0.7	4.108	A
B - A47 South	523	131	592	1861	0.281	523	0	0.3	0.4	2.690	A
C - B1108 West	362	91	544	1106	0.327	362	570	0.3	0.5	4.830	A
D - A47 North			585				321				

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	590	148	2	1465	0.403	590	584	0.7	0.7	4.114	A
B - A47 South	523	131	592	1860	0.281	523	0	0.4	0.4	2.691	A
C - B1108 West	362	91	545	1106	0.328	362	570	0.5	0.5	4.840	A
D - A47 North			586				321				

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	482	120	2	1465	0.329	483	477	0.7	0.5	3.668	A
B - A47 South	427	107	484	1944	0.220	427	0	0.4	0.3	2.373	A
C - B1108 West	296	74	446	1166	0.254	296	466	0.5	0.3	4.140	A
D - A47 North			479				263				

Queue Variation Results for each time segment
17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.49	0.00	0.00	0.49	0.49			N/A	N/A
B - A47 South	0.28	0.00	0.00	0.28	0.28			N/A	N/A
C - B1108 West	0.34	0.00	0.00	0.34	0.34			N/A	N/A
D - A47 North									

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.67	0.03	0.25	0.67	0.67			N/A	N/A
B - A47 South	0.39	0.03	0.25	0.45	0.48			N/A	N/A
C - B1108 West	0.48	0.03	0.25	0.48	0.48			N/A	N/A
D - A47 North									

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.67	0.03	0.28	0.77	2.56			N/A	N/A
B - A47 South	0.39	0.03	0.33	1.13	1.13			N/A	N/A
C - B1108 West	0.49	0.03	0.31	1.40	2.13			N/A	N/A
D - A47 North									

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.49	0.00	0.00	0.49	0.49			N/A	N/A
B - A47 South	0.28	0.00	0.00	0.28	0.28			N/A	N/A
C - B1108 West	0.34	0.00	0.00	0.34	0.34			N/A	N/A
D - A47 North									

Existing Layout - 2025 - Forecast Background flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D3 - 2025 - Forecast Background flows, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
7	B1108 / A47	Standard Roundabout		A, B, C, D	3.24	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	140	C - B1108 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D3	2025 - Forecast Background flows	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - B1108 East		ONE HOUR	✓	299	100.000
B - A47 South		ONE HOUR	✓	279	100.000
C - B1108 West		ONE HOUR	✓	323	100.000
D - A47 North					

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - B1108 East	B - A47 South	C - B1108 West	D - A47 North
From	A - B1108 East	0	0	182	117
	B - A47 South	168	0	106	5
	C - B1108 West	268	0	0	55
	D - A47 North	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - B1108 East	B - A47 South	C - B1108 West	D - A47 North
From	A - B1108 East	0	0	5	4
	B - A47 South	5	0	3	0
	C - B1108 West	3	0	0	0
	D - A47 North	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - B1108 East	0.23	3.28	0.3	1.3	A	299	299
B - A47 South	0.15	2.13	0.2	0.5	A	279	279
C - B1108 West	0.29	4.18	0.4	1.6	A	323	323
D - A47 North							

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	269	67	0	1427	0.188	269	392	0.2	0.2	3.107	A
B - A47 South	251	63	269	2045	0.123	251	0	0.1	0.1	2.005	A
C - B1108 West	290	73	261	1253	0.232	290	259	0.2	0.3	3.736	A
D - A47 North			392				159				

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	329	82	0	1427	0.231	329	480	0.2	0.3	3.278	A
B - A47 South	307	77	329	1998	0.154	307	0	0.1	0.2	2.128	A
C - B1108 West	356	89	319	1218	0.292	356	317	0.3	0.4	4.171	A
D - A47 North			480				195				

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	329	82	0	1427	0.231	329	480	0.3	0.3	3.278	A
B - A47 South	307	77	329	1998	0.154	307	0	0.2	0.2	2.128	A
C - B1108 West	356	89	319	1218	0.292	356	317	0.4	0.4	4.175	A
D - A47 North			480				195				

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	269	67	0	1427	0.188	269	392	0.3	0.2	3.109	A
B - A47 South	251	63	269	2045	0.123	251	0	0.2	0.1	2.008	A
C - B1108 West	290	73	261	1253	0.232	291	259	0.4	0.3	3.741	A
D - A47 North			392				159				

Queue Variation Results for each time segment

06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.23	0.00	0.00	0.23	0.23			N/A	N/A
B - A47 South	0.14	0.00	0.00	0.14	0.14			N/A	N/A
C - B1108 West	0.30	0.00	0.00	0.30	0.30			N/A	N/A
D - A47 North									

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.30	0.03	0.25	0.45	0.48			N/A	N/A
B - A47 South	0.18	0.03	0.25	0.46	0.48			N/A	N/A
C - B1108 West	0.41	0.03	0.25	0.45	0.48			N/A	N/A
D - A47 North									

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.30	0.03	0.31	1.00	1.27			N/A	N/A
B - A47 South	0.18	0.03	0.25	0.45	0.48			N/A	N/A
C - B1108 West	0.41	0.03	0.32	1.33	1.59			N/A	N/A
D - A47 North									

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.23	0.00	0.00	0.23	0.23			N/A	N/A
B - A47 South	0.14	0.00	0.00	0.14	0.14			N/A	N/A
C - B1108 West	0.30	0.00	0.00	0.30	0.30			N/A	N/A
D - A47 North									

Existing Layout - 2025 - Forecast Background flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D4 - 2025 - Forecast Background flows, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
7	B1108 / A47	Standard Roundabout		A, B, C, D	4.03	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	79	C - B1108 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D4	2025 - Forecast Background flows	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - B1108 East		ONE HOUR	✓	578	100.000
B - A47 South		ONE HOUR	✓	513	100.000
C - B1108 West		ONE HOUR	✓	355	100.000
D - A47 North					

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - B1108 East	B - A47 South	C - B1108 West	D - A47 North
From	A - B1108 East	0	0	303	275
	B - A47 South	256	0	254	3
	C - B1108 West	316	0	2	37
	D - A47 North	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - B1108 East	B - A47 South	C - B1108 West	D - A47 North
From	A - B1108 East	0	0	1	3
	B - A47 South	1	0	0	0
	C - B1108 West	0	0	0	3
	D - A47 North	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - B1108 East	0.43	4.34	0.8	2.2	A	578	578
B - A47 South	0.31	2.86	0.4	1.7	A	513	513
C - B1108 West	0.36	5.22	0.6	2.7	A	355	355
D - A47 North							

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	520	130	2	1465	0.355	519	514	0.4	0.5	3.802	A
B - A47 South	461	115	521	1916	0.241	461	0	0.2	0.3	2.474	A
C - B1108 West	319	80	480	1146	0.279	319	502	0.3	0.4	4.352	A
D - A47 North			516				283				

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	636	159	2	1465	0.434	636	629	0.5	0.8	4.335	A
B - A47 South	565	141	638	1825	0.310	564	0	0.3	0.4	2.854	A
C - B1108 West	391	98	587	1080	0.362	390	615	0.4	0.6	5.211	A
D - A47 North			631				346				

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	636	159	2	1465	0.434	636	630	0.8	0.8	4.344	A
B - A47 South	565	141	639	1824	0.310	565	0	0.4	0.4	2.858	A
C - B1108 West	391	98	588	1080	0.362	391	615	0.6	0.6	5.224	A
D - A47 North			632				347				

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	520	130	2	1465	0.355	520	515	0.8	0.6	3.812	A
B - A47 South	461	115	522	1915	0.241	462	0	0.4	0.3	2.479	A
C - B1108 West	319	80	481	1145	0.279	320	503	0.6	0.4	4.368	A
D - A47 North			517				284				

Queue Variation Results for each time segment

17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.55	0.55	1.00	1.40	1.45			N/A	N/A
B - A47 South	0.32	0.00	0.00	0.32	0.32			N/A	N/A
C - B1108 West	0.38	0.00	0.00	0.38	0.38			N/A	N/A
D - A47 North									

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.76	0.03	0.25	0.76	0.76			N/A	N/A
B - A47 South	0.45	0.03	0.25	0.45	0.48			N/A	N/A
C - B1108 West	0.56	0.03	0.25	0.56	0.56			N/A	N/A
D - A47 North									

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.76	0.03	0.28	0.76	2.19			N/A	N/A
B - A47 South	0.45	0.03	0.32	1.39	1.75			N/A	N/A
C - B1108 West	0.56	0.03	0.30	1.35	2.65			N/A	N/A
D - A47 North									

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.55	0.55	1.00	1.40	1.45			N/A	N/A
B - A47 South	0.32	0.00	0.00	0.32	0.32			N/A	N/A
C - B1108 West	0.39	0.00	0.00	0.39	0.39			N/A	N/A
D - A47 North									

Existing Layout - 2025 - Forecast Background flows + SEP or DEP in Isolation , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D5 - 2025 - Forecast Background flows + SEP or DEP in Isolation , AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
7	B1108 / A47	Standard Roundabout		A, B, C, D	3.27	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	135	C - B1108 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D5	2025 - Forecast Background flows + SEP or DEP in Isolation	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - B1108 East		ONE HOUR	✓	306	100.000
B - A47 South		ONE HOUR	✓	339	100.000
C - B1108 West		ONE HOUR	✓	328	100.000
D - A47 North					

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - B1108 East	B - A47 South	C - B1108 West	D - A47 North
From	A - B1108 East	0	0	189	117
	B - A47 South	168	0	166	5
	C - B1108 West	271	0	0	57
	D - A47 North	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		A - B1108 East	B - A47 South	C - B1108 West	D - A47 North
	A - B1108 East	0	0	6	4
	B - A47 South	5	0	4	0
	C - B1108 West	4	0	0	3
	D - A47 North	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - B1108 East	0.24	3.32	0.3	1.3	A	306	306
B - A47 South	0.19	2.24	0.2	0.5	A	339	339
C - B1108 West	0.30	4.30	0.4	1.7	A	328	328
D - A47 North							

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	275	69	0	1421	0.194	275	394	0.2	0.2	3.141	A
B - A47 South	305	76	275	2032	0.150	305	0	0.1	0.2	2.084	A
C - B1108 West	295	74	261	1234	0.239	295	319	0.2	0.3	3.833	A
D - A47 North			394				161				

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	337	84	0	1421	0.237	337	483	0.2	0.3	3.320	A
B - A47 South	373	93	337	1984	0.188	373	0	0.2	0.2	2.235	A
C - B1108 West	361	90	319	1199	0.301	361	391	0.3	0.4	4.294	A
D - A47 North			483				197				

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	337	84	0	1421	0.237	337	483	0.3	0.3	3.320	A
B - A47 South	373	93	337	1983	0.188	373	0	0.2	0.2	2.235	A
C - B1108 West	361	90	319	1199	0.301	361	391	0.4	0.4	4.298	A
D - A47 North			483				197				

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	275	69	0	1421	0.194	275	395	0.3	0.2	3.145	A
B - A47 South	305	76	275	2031	0.150	305	0	0.2	0.2	2.087	A
C - B1108 West	295	74	261	1234	0.239	295	319	0.4	0.3	3.837	A
D - A47 North			395				161				

Queue Variation Results for each time segment

06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.24	0.00	0.00	0.24	0.24			N/A	N/A
B - A47 South	0.18	0.00	0.00	0.18	0.18			N/A	N/A
C - B1108 West	0.31	0.00	0.00	0.31	0.31			N/A	N/A
D - A47 North									

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.31	0.03	0.25	0.45	0.48			N/A	N/A
B - A47 South	0.23	0.03	0.25	0.45	0.48			N/A	N/A
C - B1108 West	0.43	0.03	0.25	0.46	0.48			N/A	N/A
D - A47 North									

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.31	0.03	0.31	1.05	1.31			N/A	N/A
B - A47 South	0.23	0.03	0.25	0.45	0.48			N/A	N/A
C - B1108 West	0.43	0.03	0.31	1.35	1.75			N/A	N/A
D - A47 North									

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.24	0.00	0.00	0.24	0.24			N/A	N/A
B - A47 South	0.18	0.00	0.00	0.18	0.18			N/A	N/A
C - B1108 West	0.32	0.00	0.00	0.32	0.32			N/A	N/A
D - A47 North									

Existing Layout - 2025 - Forecast Background flows + SEP or DEP in Isolation , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - 2025 - Forecast Background flows + SEP or DEP in Isolation , PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
7	B1108 / A47	Standard Roundabout		A, B, C, D	4.32	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	62	C - B1108 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D6	2025 - Forecast Background flows + SEP or DEP in Isolation	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - B1108 East		ONE HOUR	✓	580	100.000
B - A47 South		ONE HOUR	✓	516	100.000
C - B1108 West		ONE HOUR	✓	421	100.000
D - A47 North					

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - B1108 East	B - A47 South	C - B1108 West	D - A47 North
From	A - B1108 East	0	0	305	275
	B - A47 South	256	0	257	3
	C - B1108 West	376	0	2	43
	D - A47 North	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - B1108 East	B - A47 South	C - B1108 West	D - A47 North
From	A - B1108 East	0	0	2	3
	B - A47 South	1	0	2	0
	C - B1108 West	1	0	0	6
	D - A47 North	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - B1108 East	0.44	4.37	0.8	2.1	A	580	580
B - A47 South	0.31	2.90	0.5	1.8	A	516	516
C - B1108 West	0.43	5.97	0.8	2.8	A	421	421
D - A47 North							

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	521	130	2	1462	0.357	521	568	0.4	0.6	3.825	A
B - A47 South	464	116	523	1899	0.244	464	0	0.2	0.3	2.507	A
C - B1108 West	378	95	480	1132	0.334	378	507	0.4	0.5	4.772	A
D - A47 North			569				288				

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	639	160	2	1461	0.437	638	695	0.6	0.8	4.366	A
B - A47 South	568	142	640	1808	0.314	568	0	0.3	0.5	2.899	A
C - B1108 West	464	116	587	1067	0.434	462	620	0.5	0.8	5.943	A
D - A47 North			697				353				

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	639	160	2	1461	0.437	639	696	0.8	0.8	4.375	A
B - A47 South	568	142	641	1808	0.314	568	0	0.5	0.5	2.903	A
C - B1108 West	464	116	588	1067	0.434	464	621	0.8	0.8	5.966	A
D - A47 North			698				353				

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	521	130	2	1462	0.357	522	569	0.8	0.6	3.835	A
B - A47 South	464	116	524	1898	0.244	464	0	0.5	0.3	2.513	A
C - B1108 West	378	95	481	1131	0.335	379	508	0.8	0.5	4.795	A
D - A47 North			571				289				

Queue Variation Results for each time segment
17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.55	0.55	1.00	1.40	1.45			N/A	N/A
B - A47 South	0.32	0.00	0.00	0.32	0.32			N/A	N/A
C - B1108 West	0.50	0.00	0.00	0.50	0.50			N/A	N/A
D - A47 North									

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.77	0.03	0.25	0.77	0.77			N/A	N/A
B - A47 South	0.46	0.03	0.25	0.46	0.48			N/A	N/A
C - B1108 West	0.76	0.03	0.26	0.76	0.76			N/A	N/A
D - A47 North									

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.77	0.03	0.27	0.77	2.15			N/A	N/A
B - A47 South	0.46	0.03	0.32	1.41	1.81			N/A	N/A
C - B1108 West	0.76	0.03	0.28	0.77	2.83			N/A	N/A
D - A47 North									

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.56	0.55	1.00	1.40	1.45			N/A	N/A
B - A47 South	0.32	0.00	0.00	0.32	0.32			N/A	N/A
C - B1108 West	0.51	0.51	1.00	1.40	1.45			N/A	N/A
D - A47 North									

Existing Layout - 2025 - Forecast Background flows + SEP and DEP , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D7 - 2025 - Forecast Background flows + SEP and DEP , AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
7	B1108 / A47	Standard Roundabout		A, B, C, D	3.26	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	134	C - B1108 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D7	2025 - Forecast Background flows + SEP and DEP	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - B1108 East		ONE HOUR	✓	308	100.000
B - A47 South		ONE HOUR	✓	360	100.000
C - B1108 West		ONE HOUR	✓	329	100.000
D - A47 North					

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - B1108 East	B - A47 South	C - B1108 West	D - A47 North
From	A - B1108 East	0	0	191	117
	B - A47 South	168	0	187	5
	C - B1108 West	272	0	0	57
	D - A47 North	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - B1108 East	B - A47 South	C - B1108 West	D - A47 North
From	A - B1108 East	0	0	6	4
	B - A47 South	5	0	4	0
	C - B1108 West	4	0	0	3
	D - A47 North	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - B1108 East	0.24	3.32	0.3	1.3	A	308	308
B - A47 South	0.20	2.26	0.2	0.5	A	360	360
C - B1108 West	0.30	4.30	0.4	1.8	A	329	329
D - A47 North							

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	277	69	0	1422	0.195	277	395	0.2	0.2	3.144	A
B - A47 South	324	81	277	2034	0.159	323	0	0.2	0.2	2.103	A
C - B1108 West	296	74	261	1234	0.240	295	340	0.2	0.3	3.836	A
D - A47 North			395				161				

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	339	85	0	1422	0.239	339	484	0.2	0.3	3.324	A
B - A47 South	396	99	339	1986	0.200	396	0	0.2	0.2	2.264	A
C - B1108 West	362	91	319	1199	0.302	362	416	0.3	0.4	4.300	A
D - A47 North			484				197				

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	339	85	0	1422	0.239	339	484	0.3	0.3	3.324	A
B - A47 South	396	99	339	1986	0.200	396	0	0.2	0.2	2.264	A
C - B1108 West	362	91	319	1199	0.302	362	416	0.4	0.4	4.304	A
D - A47 North			484				197				

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	277	69	0	1422	0.195	277	396	0.3	0.2	3.148	A
B - A47 South	324	81	277	2034	0.159	324	0	0.2	0.2	2.106	A
C - B1108 West	296	74	261	1234	0.240	296	340	0.4	0.3	3.843	A
D - A47 North			396				161				

Queue Variation Results for each time segment

06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.24	0.00	0.00	0.24	0.24			N/A	N/A
B - A47 South	0.19	0.00	0.00	0.19	0.19			N/A	N/A
C - B1108 West	0.31	0.00	0.00	0.31	0.31			N/A	N/A
D - A47 North									

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.31	0.03	0.25	0.45	0.48			N/A	N/A
B - A47 South	0.25	0.03	0.25	0.45	0.48			N/A	N/A
C - B1108 West	0.43	0.03	0.25	0.46	0.48			N/A	N/A
D - A47 North									

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.31	0.03	0.32	1.06	1.32			N/A	N/A
B - A47 South	0.25	0.03	0.26	0.47	0.49			N/A	N/A
C - B1108 West	0.43	0.03	0.31	1.35	1.76			N/A	N/A
D - A47 North									

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.24	0.00	0.00	0.24	0.24			N/A	N/A
B - A47 South	0.19	0.00	0.00	0.19	0.19			N/A	N/A
C - B1108 West	0.32	0.00	0.00	0.32	0.32			N/A	N/A
D - A47 North									

Existing Layout - 2025 - Forecast Background flows + SEP and DEP , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D8 - 2025 - Forecast Background flows + SEP and DEP , PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
7	B1108 / A47	Standard Roundabout		A, B, C, D	4.42	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	57	C - B1108 West

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D8	2025 - Forecast Background flows + SEP and DEP	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - B1108 East		ONE HOUR	✓	580	100.000
B - A47 South		ONE HOUR	✓	517	100.000
C - B1108 West		ONE HOUR	✓	446	100.000
D - A47 North					

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - B1108 East	B - A47 South	C - B1108 West	D - A47 North
From	A - B1108 East	0	0	305	275
	B - A47 South	256	0	258	3
	C - B1108 West	398	0	2	46
	D - A47 North	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - B1108 East	B - A47 South	C - B1108 West	D - A47 North
From	A - B1108 East	0	0	2	3
	B - A47 South	1	0	2	0
	C - B1108 West	1	0	0	6
	D - A47 North	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - B1108 East	0.44	4.37	0.8	2.1	A	580	580
B - A47 South	0.31	2.91	0.5	1.8	A	517	517
C - B1108 West	0.46	6.24	0.8	2.7	A	446	446
D - A47 North							

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	521	130	2	1462	0.357	521	587	0.4	0.6	3.825	A
B - A47 South	465	116	523	1899	0.245	464	0	0.2	0.3	2.509	A
C - B1108 West	401	100	480	1133	0.354	400	508	0.4	0.5	4.908	A
D - A47 North			589				291				

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	639	160	2	1461	0.437	638	719	0.6	0.8	4.366	A
B - A47 South	569	142	640	1808	0.315	569	0	0.3	0.5	2.902	A
C - B1108 West	491	123	587	1069	0.460	490	621	0.5	0.8	6.208	A
D - A47 North			721				356				

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	639	160	2	1461	0.437	639	720	0.8	0.8	4.375	A
B - A47 South	569	142	641	1808	0.315	569	0	0.5	0.5	2.906	A
C - B1108 West	491	123	588	1068	0.460	491	622	0.8	0.8	6.237	A
D - A47 North			722				357				

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - B1108 East	521	130	2	1462	0.357	522	589	0.8	0.6	3.835	A
B - A47 South	465	116	524	1898	0.245	465	0	0.5	0.3	2.514	A
C - B1108 West	401	100	481	1133	0.354	402	509	0.8	0.6	4.936	A
D - A47 North			591				292				

Queue Variation Results for each time segment

17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.55	0.55	1.00	1.40	1.45			N/A	N/A
B - A47 South	0.32	0.00	0.00	0.32	0.32			N/A	N/A
C - B1108 West	0.54	0.54	1.00	1.40	1.45			N/A	N/A
D - A47 North									

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.77	0.03	0.25	0.77	0.77			N/A	N/A
B - A47 South	0.46	0.03	0.25	0.46	0.48			N/A	N/A
C - B1108 West	0.84	0.03	0.26	0.84	0.84			N/A	N/A
D - A47 North									

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.77	0.03	0.27	0.77	2.15			N/A	N/A
B - A47 South	0.46	0.03	0.32	1.41	1.83			N/A	N/A
C - B1108 West	0.85	0.03	0.28	0.85	2.68			N/A	N/A
D - A47 North									

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - B1108 East	0.56	0.55	1.00	1.40	1.45			N/A	N/A
B - A47 South	0.33	0.00	0.00	0.33	0.33			N/A	N/A
C - B1108 West	0.55	0.55	1.00	1.40	1.45			N/A	N/A
D - A47 North									

Appendix 3 Updated Transport Assessment Junction Modelling Summary Tables

Driver Delay Impacts (SEP or DEP In Isolation)

Junction 1

Table 1: Junction 1 Modelling Results Summary SEP or DEP In Isolation (06:30 – 07:30)

Arm	2025 Forecast Background Flows (06:30 – 07:30)			2025 Forecast Background Flows + Construction Flows (06:30 – 07:30)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
Berry's Lane to A47 (West)	0.05	0.1	7.18	0.05	0.1	7.41
Berry's Lane to A47 (East)	0.12	0.1	25.64	0.16	0.2	33.80
A47 (East) to B1535	0.31	0.4	12.89	0.44	0.8	17.28
B1535 to A47 (East)	0.48	0.9	20.01	1.11	13.0	228.81
B1535 to A47 (West)	0.42	0.7	66.16	1.00	4.1	351.62
A47 (West) to Berry's Lane	0.12	0.1	7.39	0.12	0.1	7.58

Table 2: Junction 1 Modelling Results Summary SEP or DEP In Isolation (17:25 – 18:25)

Arm	2025 Forecast Background Flows (17:25 – 18:25)			2025 Forecast Background Flows + Construction Flows (17:25 – 18:25)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
Berry's Lane to A47 (West)	0.11	0.1	8.52	0.13	0.1	10.19
Berry's Lane to A47 (East)	0.08	0.1	25.04	0.14	0.2	44.12
A47 (East) to A47 (West)	0.25	0.3	8.92	0.32	0.5	10.13
B1535 to A47 (East)	0.30	0.4	10.53	1.21	22.0	329.58
B1535 to Berry's Lane	0.40	0.7	43.19	1.18	12.4	380.40
A47 (West) to A47 (East)	0.07	0.1	7.88	0.08	0.1	9.22

Junction 2

Table 3: Junction 2 Modelling Results Summary SEP or DEP In Isolation (06:30 – 07:30)

Arm	2025 Forecast Background Flows (06:30 – 07:30)			2025 Forecast Background Flows + Construction Flows (06:30 – 07:30)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
Taverham Road to A47 West	0.02	0	10.39	0.05	0.0	14.53
A47 East to Taverham Road	-	-	-	-	-	-

Table 4: Junction 2 Modelling Results Summary SEP or DEP In Isolation (17:25 – 18:25)

Arm	2025 Forecast Background Flows (17:25 – 18:25)			2025 Forecast Background Flows + Construction Flows (17:25 – 18:25)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
Taverham Road to A47 West	0.02	0	8.07	0.22	0.3	14.93
A47 East to Taverham Road	-	-	-	-	-	-

Junction 3

Table 5: Junction 3 Modelling Results Summary SEP or DEP In Isolation (06:30 – 07:30)

Arm	2025 Forecast Background Flows (06:30 – 07:30)			2025 Forecast Background Flows + Construction Flows (06:30 – 07:30)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
A47 East	0.39	0.6	2.10	0.45	0.8	2.39
Dereham Road	0.07	0.1	4.08	0.08	0.1	4.48
A47 West	0.57	1.3	3.68	0.63	1.7	4.37
Church Lane	0.27	0.4	7.52	0.31	0.4	8.93

Table 6: Junction 3 Modelling Results Summary SEP or DEP In Isolation (17:25 – 18:25)

Arm	2025 Forecast Background Flows (17:25 – 18:25)			2025 Forecast Background Flows + Construction Flows (17:25 – 18:25)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
A47 East	0.45	0.8	2.23	0.49	0.9	2.45
Dereham Road	0.15	0.2	4.98	0.25	0.3	6.54
A47 West	0.45	0.8	2.72	0.51	1.0	3.15
Church Lane	0.13	0.2	5.06	0.15	0.2	5.72

Junction 4

Table 7: Junction 4 Modelling Results Summary SEP or DEP In Isolation (06:30 – 07:30)

Arm	2025 Forecast Background Flows (06:30 – 07:30)			2025 Forecast Background Flows + Construction Flows (06:30 – 07:30)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
Station Lane to A11 West	0.11	0.1	14.48	0.14	0.2	15.37
A11 West to A11 East	-	-	-	-	-	-

Table 8: Junction 4 Modelling Results Summary SEP or DEP In Isolation (17:25 – 18:25)

Arm	2025 Forecast Background Flows (17:25 – 18:25)			2025 Forecast Background Flows + Construction Flows (17:25 – 18:25)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
Station Lane to A11 West	0.02	0	7.58	0.20	0.3	8.90
A11 West to A11 East	-	-	-	-	-	-

Junction 5

Table 9: Junction 5 Modelling Results Summary SEP or DEP In Isolation (06:30 – 07:30)

Arm	2025 Forecast Background Flows (06:30 – 07:30)			2025 Forecast Background Flows + Construction Flows (06:30 – 07:30)		
	DoS (%)	MMQ (PCUs)	Average delay per PCU (s/pcu)	DoS (%)	MMQ (PCUs)	Average delay per PCU (s/pcu)
Unnamed Road (Left) 1/1/	0.3	0.0	3.1	0.3	0.0	3.3
A11 East (Left/Ahead) 2/2 2/1	48.9	8.8	27.8	65.4	11.7	40.8
A11 East (Ahead) 2/3 2/4	48.0	8.3	26.5	54.2	9.1	36.0
A47 Northbound Off Ramp (Left) 3/2 / 3/1	71.5	11.1	25.3	74.6	12.1	26.8
A47 Northbound Off Ramp (Ahead) 3/3	60.7	14.3	27.0	63.4	15.2	28.4
A11 West (Left/Ahead) 4/1	45.4	9.9	18.8	50.2	11.3	19.1
A11 West (Ahead) 4/2	27.6	5.2	16.2	27.4	5.2	15.6
A11 West (Ahead) 4/3	28.4	5.4	16.3	27.8	5.3	15.7
A11 West (Ahead) 4/4	51.3	11.7	19.9	51.1	11.7	19.3
B1172 (Left/Ahead) 5/2 5/1	35.5	4.6	27.5	36.4	4.7	27.5
B1172 (Ahead) 5/3	71.0	10.9	45.5	73.1	11.2	47.9
A47 Southbound Off Ramp (Ahead/Left) 6/2 6/1	16.9	2.9	23.4	15.7	2.8	20.8
A47 Southbound Off Ramp (Ahead) 6/3	70.2	16.7	35.0	73.9	19.0	33.7
Practical Reserve Capacity over all lanes	25.9%			20.6%		

Table 10: Junction 5 Modelling Results Summary SEP or DEP In Isolation (17:25 – 18:25)

Arm	2025 Forecast Background Flows (17:25 – 18:25)			2025 Forecast Background Flows + Construction Flows (17:25 – 18:25)		
	DoS (%)	MMQ (PCUs)	Average delay per PCU (s/pcu)	DoS (%)	MMQ (PCUs)	Average delay per PCU (s/pcu)
Unnamed Road (Left) 1/1/	1.4	0.0	69.3	1.7	0.0	77.6
A11 East (Left/Ahead) 2/2 2/1	66.7	12.8	28.2	71.7	15.8	28.3
A11 East (Ahead) 2/3 2/4	53.4	9.1	25.2	50.0	8.6	22.8
A47 Northbound Off Ramp (Left) 3/2 / 3/1	53.4	7.5	25.0	53.0	7.3	24.3
A47 Northbound Off Ramp (Ahead) 3/3	52.3	11.2	28.1	51.4	11.1	27.3
A11 West (Left/Ahead) 4/1	52.5	11.3	27.5	58.8	13.4	28.4
A11 West (Ahead) 4/2	40.4	8.1	25.1	39.9	8.0	24.4
A11 West (Ahead) 4/3	40.1	8.0	25.0	39.4	7.9	24.3
A11 West (Ahead) 4/4	64.5	15.3	30.8	66.4	16.0	30.7
B1172 (Left/Ahead) 5/2 5/1	30.1	4.2	17.8	31.3	4.3	18.3
B1172 (Ahead) 5/3	67.2	11.7	35.0	71.8	12.9	38.6
A47 Southbound Off Ramp (Ahead/Left) 6/2 6/1	26.9	4.5	30.1	26.0	4.5	28.6
A47 Southbound Off Ramp (Ahead) 6/3	66.5	13.8	39.5	72.4	16.2	40.4
Practical Reserve Capacity over all lanes	33.9%			24.2.0%		

Junction 6

Table 11: Junction 6 Modelling Results Summary SEP or DEP In Isolation (06:30 – 07:30)

Arm	2025 Forecast Background Flows (06:30 – 07:30)			2025 Forecast Background Flows + Construction Flows (06:30 – 07:30)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
A47 Westbound	0.24	0.3	2.70	0.29	0.4	3.03
Markshall Farm Road	0.11	0.1	4.36	0.12	0.1	4.86
A140 South	0.41	0.7	2.71	0.44	0.8	2.87
A47 Eastbound	0.28	0.4	3.05	0.31	0.4	3.24
Unnamed Road	0.00	0.0	0.00	0.00	0.0	0.00
A140 North	0.33	0.5	2.98	0.38	0.6	3.25

Table 12: Junction 6 Modelling Results Summary SEP or DEP In Isolation (17:25 – 18:25)

Arm	2025 Forecast Background Flows (17:25 – 18:25)			2025 Forecast Background Flows + Construction Flows (17:25 – 18:25)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
A47 Westbound	0.27	0.4	3.36	0.29	0.4	3.59
Markshall Farm Road	0.14	0.2	5.52	0.14	0.2	5.81
A140 South	0.43	0.7	2.80	0.49	1.0	3.23
A47 Eastbound	0.37	0.6	3.39	0.42	0.7	3.93
Unnamed Road	0.04	0.0	3.39	0.05	0.0	3.73
A140 North	0.59	1.4	4.88	0.62	1.6	5.56

Junction 7

Table 13: Junction 7 Modelling Results Summary SEP or DEP In Isolation (06:30 – 07:30)

Arm	2025 Forecast Background Flows (06:30 – 07:30)			2025 Forecast Background Flows + Construction Flows (06:30 – 07:30)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
A47 East	1.07	46.5	153.25	1.12	68.0	232.99
Norwich Road	0.26	0.3	7.10	0.26	0.3	7.13
A47 West	1.09	62.6	173.04	1.21	131.3	423.42

Table 14: Junction 7 Modelling Results Summary SEP or DEP In Isolation (17:25 – 18:25)

Arm	2025 Forecast Background Flows (17:25 – 18:25)			2025 Forecast Background Flows + Construction Flows (17:25 – 18:25)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
A47 East	1.30	187.2	658.57	1.43	310.7	1057.92
Norwich Road	0.18	0.2	6.24	0.19	0.2	6.30
A47 West	0.82	4.4	16.67	0.86	5.6	20.96

Junction 8

Table 15: Junction 8 Modelling Results Summary SEP or DEP In Isolation (06:30 – 07:30)

Arm	2025 Forecast Background Flows (06:30 – 07:30)			2025 Forecast Background Flows + Construction Flows (06:30 – 07:30)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
A1074	0.50	1.0	3.21	0.51	1.0	3.30
Unnamed Road	0.29	0.4	2.67	0.29	0.4	2.67
A47 North	0.25	0.3	3.15	0.25	0.3	3.15
William Frost Way	0.41	0.7	3.54	0.41	0.7	3.54

Table 16: Junction 8 Modelling Results Summary SEP or DEP In Isolation (17:25 – 18:25)

Arm	2025 Forecast Background Flows (17:25 – 18:25)			2025 Forecast Background Flows + Construction Flows (17:25 – 18:25)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
A1074	0.68	2.1	5.37	0.67	2.1	5.32
Unnamed Road	0.71	2.4	7.00	0.72	2.5	7.19
A47 North	0.54	1.2	9.98	0.58	1.3	10.89
William Frost Way	0.70	2.3	6.78	0.71	2.4	7.11

Junction 9

Table 17: Junction 9 Modelling Results Summary SEP or DEP In Isolation (06:30 – 07:30)

Arm	2025 Forecast Background Flows (06:30 – 07:30)			2025 Forecast Background Flows + Construction Flows (06:30 – 07:30)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
Unnamed Road	0.44	0.8	5.31	0.45	0.8	5.49
A47 South	0.26	0.4	2.55	0.26	0.4	2.59
Long Lane	0.04	0.0	6.45	0.04	0.0	6.56
A47 North	0.10	0.1	3.17	0.11	0.1	3.21

Table 18: Junction 9 Modelling Results Summary SEP or DEP In Isolation (17:25 – 18:25)

Arm	2025 Forecast Background Flows (17:25 – 18:25)			2025 Forecast Background Flows + Construction Flows (17:25 – 18:25)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
Unnamed Road	0.54	1.2	6.26	0.54	1.2	6.26
A47 South	0.46	0.8	3.32	0.46	0.9	3.35
Long Lane	0.65	1.8	23.26	0.66	1.8	24.20
A47 North	0.27	0.4	5.48	0.27	0.4	5.55

Junction 10

Table 19: Junction 10 Modelling Results Summary SEP or DEP In Isolation (06:30 – 07:30)

Arm	2025 Forecast Background Flows (06:30 – 07:30)			2025 Forecast Background Flows + Construction Flows (06:30 – 07:30)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
Unnamed Road	-	-	-	-	-	-
Green Access	-	-	-	-	-	-
B1108 East	0.20	0.2	2.04	0.20	0.2	2.05
B1108 West	0.32	0.5	3.55	0.33	0.5	3.59
A47 North	0.22	0.3	2.34	0.23	0.3	2.36

Table 20: Junction 10 Modelling Results Summary SEP or DEP In Isolation (17:25 – 18:25)

Arm	2025 Forecast Background Flows (17:25 – 18:25)			2025 Forecast Background Flows + Construction Flows (17:25 – 18:25)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
Unnamed Road	-	-	-	-	-	-
Green Access	-	-	-	-	-	-
B1108 East	0.39	0.6	2.70	0.40	0.7	2.80
B1108 West	0.41	0.7	3.98	0.45	0.8	4.32
A47 North	0.17	0.2	2.31	0.18	0.2	2.39

Junction 11

Table 21: Junction 11 Modelling Results Summary SEP or DEP In Isolation (06:30 – 07:30)

Arm	2025 Forecast Background Flows (06:30 – 07:30)			2025 Forecast Background Flows + Construction Flows (06:30 – 07:30)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
B1108 (East)	0.23	0.3	3.28	0.24	0.3	3.32
A47 South	0.15	0.2	2.13	0.19	0.2	2.24
B1108 (West)	0.29	0.4	4.18	0.30	0.4	4.30

Table 22: Junction 11 Modelling Results Summary SEP or DEP In Isolation (17:25 – 18:25)

Arm	2025 Forecast Background Flows (17:25 – 18:25)			2025 Forecast Background Flows + Construction Flows (17:25 – 18:25)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
B1108 (East)	0.43	0.8	4.34	0.44	0.8	4.37
A47 South	0.31	0.4	2.86	0.31	0.5	2.90
B1108 (West)	0.36	0.6	5.22	0.43	0.8	5.97

Driver Delay Impacts (SEP and DEP Concurrently)

Junction 1

Table 23: Junction 1 Modelling Results Summary SEP and DEP Concurrently (06:30 – 07:30)

Arm	2025 Forecast Background Flows (06:30 – 07:30)			2025 Forecast Background Flows + Construction Flows (06:30 – 07:30)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
Berry's Lane to A47 (West)	0.05	0.1	7.18	0.05	0.1	7.51
Berry's Lane to A47 (East)	0.12	0.1	25.64	0.17	0.2	38.27
A47 (East) to A47 (West)	0.31	0.4	12.89	0.52	1.0	20.61
B1535 to A47 (East)	0.48	0.9	20.01	1.86	45.5	684.05
B1535 to Berry's Lane	0.42	0.7	66.16	1.77	10.0	1401.34
A47 (West) to A47 (East)	0.12	0.1	7.39	0.12	0.1	7.65

Table 24: Junction 1 Modelling Results Summary SEP and DEP Concurrently (17:25 – 18:25)

Arm	2025 Forecast Background Flows (17:25 – 18:25)			2025 Forecast Background Flows + Construction Flows (17:25 – 18:25)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
Berry's Lane to A47 (West)	0.11	0.1	8.52	0.13	0.1	10.19
Berry's Lane to A47 (East)	0.08	0.1	25.04	0.14	0.2	44.12
A47 (East) to A47 (West)	0.25	0.3	8.92	0.32	0.5	10.13
B1535 to A47 (East)	0.30	0.4	10.53	1.21	22.0	329.58
B1535 to Berry's Lane	0.40	0.7	43.19	1.18	12.4	380.40
A47 (West) to A47 (East)	0.07	0.1	7.88	0.08	0.1	9.22

Junction 2

Table 25: Junction 2 Modelling Results Summary SEP and DEP Concurrently (06:30 – 07:30)

Arm	2025 Forecast Background Flows (06:30 – 07:30)			2025 Forecast Background Flows + Construction Flows (06:30 – 07:30)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
Taverham Road to A47 West	0.02	0	10.39	0.07	0.1	18.25
A47 East to Taverham Road	-	-	-	-	-	-

Table 26: Junction 2 Modelling Results Summary SEP and DEP Concurrently (17:25 – 18:25)

Arm	2025 Forecast Background Flows (17:25 – 18:25)			2025 Forecast Background Flows + Construction Flows (17:25 – 18:25)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
Taverham Road to A47 West	0.02	0	8.07	0.21	0.3	9.63
A47 East to Taverham Road	-	-	-	-	-	-

Junction 3

Table 27: Junction 3 Modelling Results Summary SEP and DEP Concurrently (06:30 – 07:30)

Arm	2025 Forecast Background Flows (06:30 – 07:30)			2025 Forecast Background Flows + Construction Flows (06:30 – 07:30)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
A47 East	0.39	0.6	2.10	0.47	0.9	2.49
Dereham Road	0.07	0.1	4.08	0.13	0.2	6.02
A47 West	0.57	1.3	3.68	0.65	1.9	4.60
Church Lane	0.27	0.4	7.52	0.32	0.5	9.52

Table 28: Junction 3 Modelling Results Summary SEP and DEP Concurrently (17:25 – 18:25)

Arm	2025 Forecast Background Flows (17:25 – 18:25)			2025 Forecast Background Flows + Construction Flows (17:25 – 18:25)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
A47 East	0.45	0.8	2.23	0.51	1.0	2.58
Dereham Road	0.15	0.2	4.98	0.27	0.4	7.11
A47 West	0.45	0.8	2.72	0.54	1.2	3.43
Church Lane	0.13	0.2	5.06	0.16	0.2	6.18

Junction 4

Table 29: Junction 4 Modelling Results Summary SEP and DEP Concurrently (06:30 – 07:30)

Arm	2025 Forecast Background Flows (06:30 – 07:30)			2025 Forecast Background Flows + Construction Flows (06:30 – 07:30)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
Station Lane to A11 West	0.11	0.1	14.48	0.17	0.2	16.44
A11 West to A11 East	-	-	-	-	-	-

Table 30: Junction 4 Modelling Results Summary SEP and DEP Concurrently (17:25 – 18:25)

Arm	2025 Forecast Background Flows (17:25 – 18:25)			2025 Forecast Background Flows + Construction Flows (17:25 – 18:25)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
Station Lane to A11 West	0.02	0	7.58	0.34	0.5	11.00
A11 West to A11 East	-	-	-	-	-	-

Junction 5

Table 31: Junction 5 Modelling Results Summary SEP and DEP Concurrently (06:30 – 07:30)

Arm	2025 Forecast Background Flows (06:30 – 07:30)			2025 Forecast Background Flows + Construction Flows (06:30 – 07:30)		
	DoS (%)	MMQ (PCUs)	Average delay per PCU (s/pcu)	DoS (%)	MMQ (PCUs)	Average delay per PCU (s/pcu)
Unnamed Road (Left) 1/1/	0.3	0.0	3.1	0.3	0.0	3.4
A11 East (Left/Ahead) 2/2 2/1	48.9	8.8	27.8	60.0	9.4	39.0
A11 East (Ahead) 2/3 2/4	48.0	8.3	26.5	59.6	10.3	38.0
A47 Northbound Off Ramp (Left) 3/2 / 3/1	71.5	11.1	25.3	76.8	13.6	27.6
A47 Northbound Off Ramp (Ahead) 3/3	60.7	14.3	27.0	64.7	15.8	28.8
A11 West (Left/Ahead) 4/1	45.4	9.9	18.8	50.7	11.4	18.6
A11 West (Ahead) 4/2	27.6	5.2	16.2	27.3	5.2	15.1
A11 West (Ahead) 4/3	28.4	5.4	16.3	27.1	5.1	15.1
A11 West (Ahead) 4/4	51.3	11.7	19.9	51.6	11.8	18.8
B1172 (Left/Ahead) 5/2 5/1	35.5	4.6	27.5	37.3	4.8	28.2
B1172 (Ahead) 5/3	71.0	10.9	45.5	75.9	11.6	51.0
A47 Southbound Off Ramp (Ahead/Left) 6/2 6/1	16.9	2.9	23.4	15.4	2.7	20.2
A47 Southbound Off Ramp (Ahead) 6/3	70.2	16.7	35.0	76.6	20.6	34.4
Practical Reserve Capacity over all lanes	25.9%			17.2%		

Table 32: Junction 5 Modelling Results Summary SEP and DEP Concurrently (17:25 – 18:25)

Arm	2025 Forecast Background Flows (17:25 – 18:25)			2025 Forecast Background Flows + Construction Flows (17:25 – 18:25)		
	DoS (%)	MMQ (PCUs)	Average delay per PCU (s/pcu)	DoS (%)	MMQ (PCUs)	Average delay per PCU (s/pcu)
Unnamed Road (Left) 1/1/	1.4	0.0	69.3	1.6	0.0	73.2
A11 East (Left/Ahead) 2/2 2/1	66.7	12.8	28.2	62.9	10.7	29.1
A11 East (Ahead) 2/3 2/4	53.4	9.1	25.2	59.0	10.3	28.2
A47 Northbound Off Ramp (Left) 3/2 / 3/1	53.4	7.5	25.0	57.6	8.2	27.7
A47 Northbound Off Ramp (Ahead) 3/3	52.3	11.2	28.1	55.9	11.9	31.0
A11 West (Left/Ahead) 4/1	52.5	11.3	27.5	64.6	15.2	31.5
A11 West (Ahead) 4/2	40.4	8.1	25.1	40.9	8.1	25.8
A11 West (Ahead) 4/3	40.1	8.0	25.0	41.3	8.3	25.9
A11 West (Ahead) 4/4	64.5	15.3	30.8	72.2	17.9	34.4
B1172 (Left/Ahead) 5/2 5/1	30.1	4.2	17.8	30.5	4.2	17.4
B1172 (Ahead) 5/3	67.2	11.7	35.0	72.1	13.2	37.8
A47 Southbound Off Ramp (Ahead/Left) 6/2 6/1	26.9	4.5	30.1	24.9	4.3	27.1
A47 Southbound Off Ramp (Ahead) 6/3	66.5	13.8	39.5	71.2	16.2	38.3
Practical Reserve Capacity over all lanes	33.9%			24.7%		

Junction 6

Table 33: Junction 6 Modelling Results Summary SEP and DEP Concurrently (06:30 – 07:30)

Arm	2025 Forecast Background Flows (06:30 – 07:30)			2025 Forecast Background Flows + Construction Flows (06:30 – 07:30)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
A47 Westbound	0.24	0.3	2.70	0.32	0.5	3.30
Markshall Farm Road	0.11	0.1	4.36	0.13	0.1	5.27
A140 South	0.41	0.7	2.71	0.45	0.8	2.99
A47 Eastbound	0.28	0.4	3.05	0.33	0.5	3.44
Unnamed Road	-	-	-	-	-	-
A140 North	0.33	0.5	2.98	0.41	0.7	3.50

Table 34: Junction 6 Modelling Results Summary SEP and DEP Concurrently (17:25 – 18:25)

Arm	2025 Forecast Background Flows (17:25 – 18:25)			2025 Forecast Background Flows + Construction Flows (17:25 – 18:25)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
A47 Westbound	0.27	0.4	3.36	0.30	0.4	3.76
Markshall Farm Road	0.14	0.2	5.52	0.15	0.2	6.03
A140 South	0.43	0.7	2.80	0.54	1.2	3.61
A47 Eastbound	0.37	0.6	3.39	0.46	0.8	4.45
Unnamed Road	0.04	0.0	3.39	0.05	0.1	4.00
A140 North	0.59	1.4	4.88	0.65	1.8	6.13

Junction 7

Table 35: Junction 7 Modelling Results Summary SEP and DEP Concurrently (06:30 – 07:30)

Arm	2025 Forecast Background Flows (06:30 – 07:30)			2025 Forecast Background Flows + Construction Flows (06:30 – 07:30)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
A47 East	1.07	46.5	153.25	1.13	73.0	256.18
Norwich Road	0.26	0.3	7.10	0.26	0.3	7.14
A47 West	1.09	62.6	173.04	1.27	172.7	555.39

Table 36: Junction 7 Modelling Results Summary SEP and DEP Concurrently (17:25 – 18:25)

Arm	2025 Forecast Background Flows (17:25 – 18:25)			2025 Forecast Background Flows + Construction Flows (17:25 – 18:25)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
A47 East	1.30	187.2	658.57	1.49	369.3	1247.50
Norwich Road	0.18	0.2	6.24	0.19	0.2	6.32
A47 West	0.82	4.4	16.67	0.87	5.9	22.01

Junction 8

Table 37: Junction 8 Modelling Results Summary SEP and DEP Concurrently (06:30 – 07:30)

Arm	2025 Forecast Background Flows (06:30 – 07:30)			2025 Forecast Background Flows + Construction Flows (06:30 – 07:30)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
A1074	0.50	1.0	3.21	0.52	1.1	3.32
Unnamed Road	0.29	0.4	2.67	0.29	0.4	2.68
A47 North	0.25	0.3	3.15	0.25	0.3	3.15
William Frost Way	0.41	0.7	3.54	0.41	0.7	3.54

Table 38: Junction 8 Modelling Results Summary SEP and DEP Concurrently (17:25 – 18:25)

Arm	2025 Forecast Background Flows (17:25 – 18:25)			2025 Forecast Background Flows + Construction Flows (17:25 – 18:25)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
A1074	0.68	2.1	5.37	0.68	2.1	5.33
Unnamed Road	0.71	2.4	7.00	0.72	2.5	7.28
A47 North	0.54	1.2	9.98	0.58	1.4	11.11
William Frost Way	0.70	2.3	6.78	0.71	2.4	7.22

Junction 9

Table 39: Junction 9 Modelling Results Summary SEP and DEP Concurrently (06:30 – 07:30)

Arm	2025 Forecast Background Flows (06:30 – 07:30)			2025 Forecast Background Flows + Construction Flows (06:30 – 07:30)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
Unnamed Road	0.44	0.8	5.31	0.45	0.8	5.49
A47 South	0.26	0.4	2.55	0.26	0.4	2.59
Long Lane	0.04	0.0	6.45	0.04	0.0	6.56
A47 North	0.10	0.1	3.17	0.11	0.1	3.21

Table 40: Junction 9 Modelling Results Summary SEP and DEP Concurrently (17:25 – 18:25)

Arm	2025 Forecast Background Flows (17:25 – 18:25)			2025 Forecast Background Flows + Construction Flows (17:25 – 18:25)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
Unnamed Road	0.54	1.2	6.26	0.54	1.2	6.26
A47 South	0.46	0.8	3.32	0.47	0.9	3.38
Long Lane	0.65	1.8	23.26	0.66	1.9	24.79
A47 North	0.27	0.4	5.48	0.28	0.4	5.57

Junction 10

Table 41: Junction 10 Modelling Results Summary SEP and DEP Concurrently (06:30 – 07:30)

Arm	2025 Forecast Background Flows (06:30 – 07:30)			2025 Forecast Background Flows + Construction Flows (06:30 – 07:30)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
Unnamed Road	-	-	-	-	-	-
Green Access	-	-	-	-	-	-
B1108 East	0.20	0.2	2.04	0.20	0.2	2.06
B1108 West	0.32	0.5	3.55	0.33	0.5	3.61
A47 North	0.22	0.3	2.34	0.23	0.3	2.36

Table 42: Junction 10 Modelling Results Summary SEP and DEP Concurrently (17:25 – 18:25)

Arm	2025 Forecast Background Flows (17:25 – 18:25)			2025 Forecast Background Flows + Construction Flows (17:25 – 18:25)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
Unnamed Road	-	-	-	-	-	-
Green Access	-	-	-	-	-	-
B1108 East	0.39	0.6	2.70	0.40	0.7	2.84
B1108 West	0.41	0.7	3.98	0.47	0.9	4.45
A47 North	0.17	0.2	2.31	0.18	0.2	2.42

Junction 11

Table 43: Junction 11 Modelling Results Summary SEP and DEP Concurrently (06:30 – 07:30)

Arm	2025 Forecast Background Flows (06:30 – 07:30)			2025 Forecast Background Flows + Construction Flows (06:30 – 07:30)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
B1108 (East)	0.23	0.3	3.28	0.24	0.3	3.32
A47 South	0.15	0.2	2.13	0.20	0.2	2.26
B1108 (West)	0.29	0.4	4.18	0.30	0.4	4.30

Table 44: Junction 11 Modelling Results Summary SEP and DEP Concurrently (17:25 – 18:25)

Arm	2025 Forecast Background Flows (17:25 – 18:25)			2025 Forecast Background Flows + Construction Flows (17:25 – 18:25)		
	RFC	Queue (Veh)	Average delay per veh (s)	RFC	Queue (Veh)	Average delay per veh (s)
B1108 (East)	0.43	0.8	4.34	0.44	0.8	4.37
A47 South	0.31	0.4	2.86	0.31	0.5	2.91
B1108 (West)	0.36	0.6	5.22	0.46	0.8	6.24

Appendix 4 Junction 6 Modelling Outputs (with lane simulation)

Junctions 9	
ARCADY 9 - Roundabout Module	
Version: 9.5.1.7462 © Copyright TRL Limited, 2019	
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk	
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution	

Filename: Junction 6 - Existing Layout - Construction Peaks - Lane Simulation - Base Flows.j9
Path: C:\Users\304111\Box\PB8164 Team\PB8164 Technical Data\E08 Transport\TD\Calcs\Modelling\J6
Report generation date: 22/05/2023 13:22:07

- »Existing Layout - 2021 - Construction Peak - Baseline, AM
- »Existing Layout - 2021 - Construction Peak - Baseline, PM
- »Existing Layout - 2025 - Forecast Background flows, AM
- »Existing Layout - 2025 - Forecast Background flows, PM

Summary of junction performance

	AM							PM								
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Existing Layout [Lane Simulation] - 2021 - Construction Peak - Baseline																
A - A47 Westbound	D1	0.7	5.62		A	7.41	A	%	D2	0.7	6.34		A	15.75	C	%
B - Markshall Farm Road		0.2	7.93		A					0.3	9.56		A			
C - A140 South		1.8	7.29		A					1.9	7.56		A			
D - A47 Eastbound		0.8	6.14		A					1.1	6.42		A			
E - Unnamed Road		0.0	0.00		A					0.1	6.67		A			
F - A140 North		1.8	9.75		A					9.1	33.41		D			
Existing Layout [Lane Simulation] - 2025 - Forecast Background flows																
A - A47 Westbound	D3	0.8	6.12		A	8.01	A	%	D4	0.8	6.92		A	28.25	D	%
B - Markshall Farm Road		0.4	7.93		A					0.3	9.96		A			
C - A140 South		2.9	8.15		A					2.4	8.40		A			
D - A47 Eastbound		0.9	6.58		A					1.5	7.31		A			
E - Unnamed Road		0.0	0.00		A					0.1	6.66		A			
F - A140 North		2.0	10.22		B					22.4	69.48		F			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Arm and junction delays are averages for all movements, including movements with zero delay. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

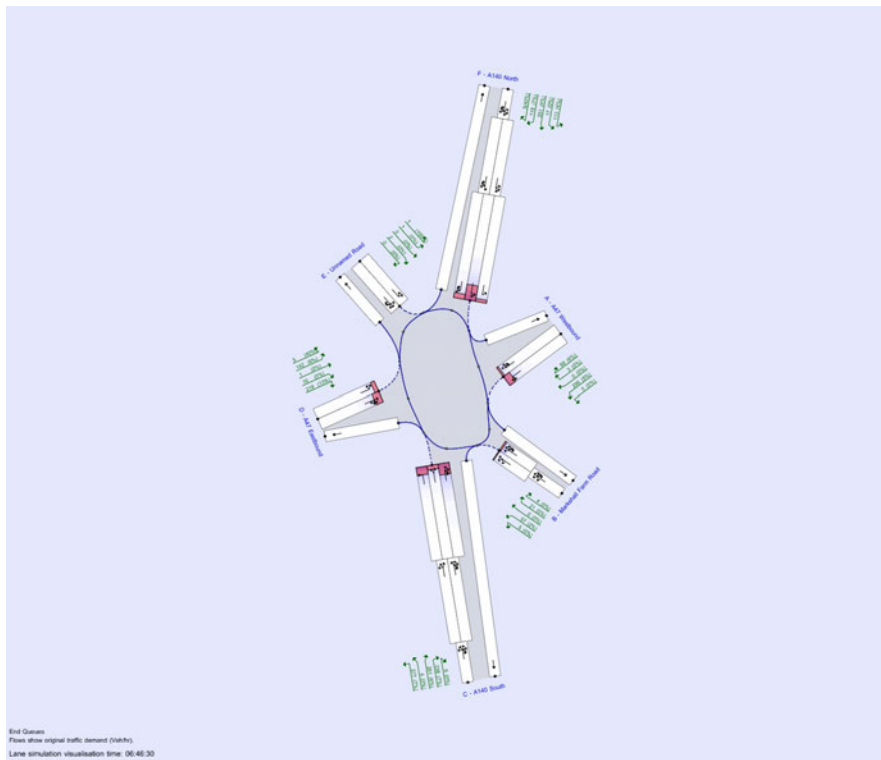
File summary

File Description

Title	Junction 6
Location	A47 / A140 / Markshall Farm Road
Site number	6
Date	11/04/2022
Version	1
Status	Existing Layout
Identifier	
Client	Equinor
Jobnumber	PB8164
Enumerator	CORPORATEROOT\921707
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



End Cases
 Please show original traffic demand (Vehicles)
 Lane simulation visualization time: 06:46:30
 The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓		✓	Delay	0.85	36.00	20.00

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Average animation capture interval (s)	Use quick response	Do flow sampling	Suppress automatic lane creation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	100000	100000	-1	3	1	60	✓			1672982737	67	14.15

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021 - Construction Peak - Baseline	AM	ONE HOUR	06:15	07:45	15	✓	✓
D2	2021 - Construction Peak - Baseline	PM	ONE HOUR	17:10	18:40	15	✓	✓
D3	2025 - Forecast Background flows	AM	ONE HOUR	06:15	07:45	15	✓	✓
D4	2025 - Forecast Background flows	PM	ONE HOUR	17:10	18:40	15	✓	✓

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A6	Existing Layout	✓	✓	100.000	100.000

Existing Layout - 2021 - Construction Peak - Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A6 - Existing Layout [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	C - A140 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	F - A140 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D1 - 2021 - Construction Peak - Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
6	A47 / A140 / Markshall Farm Road	Large Roundabout		A, B, C, D, E, F	7.41	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A47 Westbound	
B	Markshall Farm Road	
C	A140 South	
D	A47 Eastbound	
E	Unnamed Road	
F	A140 North	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - A47 Westbound	8.16	8.16	0.0	20.6	107.0	19.0	
B - Markshall Farm Road	3.26	7.04	6.2	21.0	111.9	19.5	
C - A140 South	4.15	9.97	37.5	25.8	108.0	14.5	
D - A47 Eastbound	8.23	8.23	0.0	23.9	114.7	39.0	
E - Unnamed Road	6.15	7.80	6.0	19.5	114.7	19.0	
F - A140 North	5.06	10.10	41.9	33.8	106.1	16.5	

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A - A47 Westbound	1466	89.30
B - Markshall Farm Road	1892	20.15
C - A140 South	649	28.20
D - A47 Eastbound	965	93.30
E - Unnamed Road	1711	29.90
F - A140 North	858	27.28

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A47 Westbound	0.911	2909
B - Markshall Farm Road	0.590	1813
C - A140 South	1.107	3253
D - A47 Eastbound	0.963	2881
E - Unnamed Road	0.779	2616
F - A140 North	1.117	3426

The slope and intercept shown above include any corrections and adjustments.

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A47 Westbound	Percentage		85.00
B - Markshall Farm Road	Percentage		85.00
C - A140 South	Percentage		85.00
D - A47 Eastbound	Percentage		85.00
E - Unnamed Road	Percentage		85.00
F - A140 North	Percentage		70.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
A - A47 Westbound	Evenly split	10.00
B - Markshall Farm Road	Evenly split	10.00
C - A140 South	Evenly split	10.00
D - A47 Eastbound	Evenly split	10.00
E - Unnamed Road	Evenly split	10.00
F - A140 North	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
A - A47 Westbound	Entry	1	1	B, C		Infinity		0	99999	
			2	A, D, E, F		Infinity		0	99999	
B - Markshall Farm Road	Entry	1	1	C, D, E	✓	3.00		0	99999	
			2	A, B, D, E, F	✓	3.00		0	99999	

		2	1	(A, B, C, D, E, F)		Infinity			
	Exit	1	1			Infinity			
C - A140 South	Entry	1	1	D	✓	7.40	0	99999	
			2	E, F	✓	7.40	0	99999	
			3	A, B, C, F	✓	7.40	0	99999	
	2	1	(D, E, F)	✓	6.60				
		2	(A, B, C, E, F)	✓	6.60				
	Exit	3	1	((A, B, C, D, E, F))		Infinity			
D - A47 Eastbound	Entry	1	1	E, F		Infinity	0	99999	
			2	A, B, C, D		Infinity	0	99999	
	Exit	1	1			Infinity			
E - Unnamed Road	Entry	1	1	A, F		Infinity	0	99999	
			2	A, B, C, D, E		Infinity	0	99999	
	Exit	1	1			Infinity			
F - A140 North	Entry	1	1	A	✓	8.40	0	99999	
			2	B, C	✓	8.40	0	99999	
			3	D, E, F	✓	8.40	0	99999	
	2	1	(A, B, C)	✓	6.00				
		2	(C, D, E, F)	✓	6.00				
	Exit	3	1	((A, B, C, D, E, F))		Infinity			
	Exit	1	1			Infinity			

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A47 Westbound	Entry	1	1	0.455	1454
			2	0.455	1454
B - Markshall Farm Road	Entry	1	1	0.295	907
			2	0.295	907
C - A140 South	Entry	1	1	0.369	1084
			2	0.369	1084
			3	0.369	1084
D - A47 Eastbound	Entry	1	1	0.481	1440
			2	0.481	1440
E - Unnamed Road	Entry	1	1	0.389	1308
			2	0.389	1308
F - A140 North	Entry	1	1	0.372	1142
			2	0.372	1142
			3	0.372	1142

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm					
			A47 Westbound	Markshall Farm Road	A140 South	A47 Eastbound	Unnamed Road	A140 North
A - A47 Westbound	1	1		✓	✓			
		2	✓			✓	✓	✓
B - Markshall Farm Road	1	1			✓	✓	✓	
		2	✓	✓	✓	✓	✓	✓
C - A140 South	1	1					✓	✓
		2	✓	✓	✓		✓	✓
		3	✓	✓	✓	✓	✓	✓
D - A47 Eastbound	1	1					✓	✓
		2	✓	✓	✓	✓		
E - Unnamed Road	1	1	✓				✓	✓
		2	✓	✓	✓	✓	✓	
F - A140 North	1	1	✓					
		2		✓	✓			
		3				✓	✓	✓
2	1	✓		✓				
	2	✓	✓	✓	✓	✓	✓	
3	1	✓	✓	✓	✓	✓	✓	
	2	✓	✓	✓	✓	✓	✓	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2021 - Construction Peak - Baseline	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 Westbound		ONE HOUR	✓	354	100.000
B - Markshall Farm Road		ONE HOUR	✓	87	100.000
C - A140 South		ONE HOUR	✓	788	100.000
D - A47 Eastbound		ONE HOUR	✓	383	100.000
E - Unnamed Road		ONE HOUR	✓	4	100.000
F - A140 North		ONE HOUR	✓	505	100.000

Origin-Destination Data

Demand (Veh/hr)

	To					
	A - A47 Westbound	B - Markshall Farm	C - A140	D - A47 Eastbound	E - Unnamed	F - A140

Proportions

	To					
	A - A47 Westbound	B - Markshall Farm	C - A140	D - A47 Eastbound	E - Unnamed	F - A140

		Road	South	Road	North		
From	A - A47 Westbound	1	5	256	0	3	89
	B - Markshall Farm Road	4	0	5	57	0	21
	C - A140 South	238	8	0	277	4	261
	D - A47 Eastbound	1	16	219	0	5	142
	E - Unnamed Road	1	0	2	0	0	1
	F - A140 North	113	17	251	119	5	0

		Road	South	Road	North		
From	A - A47 Westbound	0.00	0.01	0.72	0.00	0.01	0.25
	B - Markshall Farm Road	0.05	0.00	0.06	0.66	0.00	0.24
	C - A140 South	0.30	0.01	0.00	0.35	0.01	0.33
	D - A47 Eastbound	0.00	0.04	0.57	0.00	0.01	0.37
	E - Unnamed Road	0.25	0.00	0.50	0.00	0.00	0.25
	F - A140 North	0.22	0.03	0.50	0.24	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	0	0	5	0	0	6
	B - Markshall Farm Road	0	0	0	2	0	0
	C - A140 South	7	0	0	7	0	6
	D - A47 Eastbound	0	0	13	0	40	6
	E - Unnamed Road	0	0	0	0	0	100
	F - A140 North	4	0	6	7	40	0

Average PCU Per Veh

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	1.000	1.000	1.051	1.000	1.000	1.056
	B - Markshall Farm Road	1.000	1.000	1.000	1.018	1.000	1.000
	C - A140 South	1.071	1.000	1.000	1.072	1.000	1.061
	D - A47 Eastbound	1.000	1.000	1.128	1.000	1.400	1.056
	E - Unnamed Road	1.000	1.000	1.000	1.000	1.000	2.000
	F - A140 North	1.035	1.000	1.056	1.067	1.400	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
06:15-06:30	A - A47 Westbound	267	280
	B - Markshall Farm Road	65	66
	C - A140 South	593	633
	D - A47 Eastbound	288	317
	E - Unnamed Road	0	0
	F - A140 North	380	401
06:30-06:45	A - A47 Westbound	318	334
	B - Markshall Farm Road	78	79
	C - A140 South	708	756
	D - A47 Eastbound	344	378
	E - Unnamed Road	0	0
	F - A140 North	454	479
06:45-07:00	A - A47 Westbound	390	410
	B - Markshall Farm Road	96	97
	C - A140 South	868	926
	D - A47 Eastbound	422	464
	E - Unnamed Road	0	0
	F - A140 North	556	587
07:00-07:15	A - A47 Westbound	390	410
	B - Markshall Farm Road	96	97
	C - A140 South	868	926
	D - A47 Eastbound	422	464
	E - Unnamed Road	0	0
	F - A140 North	556	587
07:15-07:30	A - A47 Westbound	318	334
	B - Markshall Farm Road	78	79
	C - A140 South	708	756
	D - A47 Eastbound	344	378
	E - Unnamed Road	0	0
	F - A140 North	454	479
07:30-07:45	A - A47 Westbound	267	280
	B - Markshall Farm Road	65	66
	C - A140 South	593	633
	D - A47 Eastbound	288	317
	E - Unnamed Road	0	0
	F - A140 North	380	401

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 Westbound	5.62	0.7	2.9	A	355	355
B - Markshall Farm Road	7.93	0.2	2.0	A	88	88
C - A140 South	7.29	1.8	4.3	A	785	785
D - A47 Eastbound	6.14	0.8	2.5	A	388	388
E - Unnamed Road	0.00	0.0	~1	A	0	0
F - A140 North	9.75	1.8	5.0	A	510	510

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	318	79	577	315	335	320	0.4	0.6	4.774	A
B - Markshall Farm Road	76	19	853	76	76	39	0.1	0.2	6.445	A
C - A140 South	694	174	266	697	747	662	0.9	1.3	6.404	A
D - A47 Eastbound	343	86	558	342	372	405	0.3	0.4	5.038	A
E - Unnamed Road	0	0	883	0	0	17	0.0	0.0	0.000	A
F - A140 North	465	116	432	464	480	451	0.7	0.9	8.025	A

06:45 - 07:00

Total Demand	Junction Arrivals	Circulating flow	Throughput	Average	Throughput (exit	Unsignalised

Arm	(Veh/hr)	(Veh)	(Veh/hr)	(Veh/hr)	throughput (PCU/hr)	side (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	level of service
A - A47 Westbound	398	100	715	397	410	394	0.6	0.7	5.349	A
B - Markshall Farm Road	96	24	1062	95	98	50	0.2	0.2	7.926	A
C - A140 South	864	216	337	861	921	821	1.3	1.7	7.294	A
D - A47 Eastbound	441	110	700	441	464	497	0.4	0.8	6.091	A
E - Unnamed Road	0	0	1119	0	0	22	0.0	0.0	0.000	A
F - A140 North	567	142	544	565	589	574	0.9	1.7	9.750	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	376	94	700	375	404	394	0.7	0.7	5.618	A
B - Markshall Farm Road	92	23	1022	92	95	53	0.2	0.1	7.415	A
C - A140 South	868	217	318	870	924	796	1.7	1.6	7.188	A
D - A47 Eastbound	426	107	693	429	457	496	0.8	0.7	6.135	A
E - Unnamed Road	0	0	1104	0	0	17	0.0	0.0	0.000	A
F - A140 North	552	138	542	552	588	562	1.7	1.3	9.398	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	330	83	578	331	338	313	0.7	0.4	5.081	A
B - Markshall Farm Road	87	22	871	86	84	38	0.1	0.2	7.199	A
C - A140 South	715	179	280	711	763	677	1.6	1.3	6.621	A
D - A47 Eastbound	344	86	567	346	381	424	0.7	0.5	5.296	A
E - Unnamed Road	0	0	898	0	0	15	0.0	0.0	0.000	A
F - A140 North	455	114	434	458	480	465	1.3	0.9	8.438	A

Queue Variation Results for each time segment

06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	0.67	0.00	0.00	1.73	2.44
B - Markshall Farm Road	0.16	0.00	0.00	0.37	0.74
C - A140 South	1.41	0.00	0.64	2.74	3.46
D - A47 Eastbound	0.42	0.00	0.00	0.88	1.52
E - Unnamed Road	0.00	0.00	0.00	0.00	0.00
F - A140 North	0.97	0.00	0.24	2.33	3.78

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	0.69	0.00	0.00	1.68	2.84
B - Markshall Farm Road	0.21	0.00	0.00	0.53	1.98
C - A140 South	1.75	0.00	1.03	3.33	4.16
D - A47 Eastbound	0.80	0.00	0.00	1.88	2.49
E - Unnamed Road	0.00	0.00	0.00	0.00	0.00
F - A140 North	1.78	0.00	0.75	3.89	5.05

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	0.68	0.00	0.00	1.67	2.21
B - Markshall Farm Road	0.15	0.00	0.00	0.98	0.98
C - A140 South	1.57	0.00	0.70	3.59	4.25
D - A47 Eastbound	0.76	0.00	-0.02	2.01	2.51
E - Unnamed Road	0.00	0.00	0.00	0.00	0.00
F - A140 North	1.26	0.00	0.54	2.41	3.46

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	0.43	0.00	0.00	1.27	2.87
B - Markshall Farm Road	0.21	0.00	0.00	0.52	0.86
C - A140 South	1.28	0.00	0.58	2.85	3.37
D - A47 Eastbound	0.53	0.00	0.00	1.40	1.66
E - Unnamed Road	0.00	0.00	0.00	0.00	0.00
F - A140 North	0.89	0.00	-0.03	2.09	2.61

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

06:30 - 06:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	Entry	1	1	B, C	237	952	0.249	234	249	0.3	0.5	5.025	A
			2	A, D, E, F	81	951	0.086	81	86	0.1	0.1	4.041	A
	Exit	1	1		320			320	342	0.0	0.0	0.000	A
B - Markshall Farm Road	Entry	1	1	C, D, E	30	538	0.056	30	30	0.0	0.0	6.287	A
			2	A, B, D, E, F	46	539	0.085	45	47	0.1	0.1	6.543	A
	Exit	2	1	(A, B, C, D, E, F)	76			76	77	0.0	0.0	0.000	A
C - A140 South	Entry	1	1	D	245	782	0.313	246	261	0.3	0.6	6.933	A
			2	E, F	143	785	0.182	142	155	0.2	0.3	4.932	A
			3	A, B, C, F	307	790	0.389	309	331	0.4	0.5	6.639	A
	Entry	2	1	(D, E, F)	355			356	383	0.0	0.0	0.029	A
			2	(A, B, C, E, F)	339			339	366	0.0	0.0	0.006	A
			3	((A, B, C, D, E, F))	694			694	749	0.0	0.0	0.000	A
	Exit	1	1		662			662	701	0.0	0.0	0.000	A
D - A47 Eastbound	Entry	1	1	E, F	134	924	0.146	135	143	0.1	0.1	4.665	A
			2	A, B, C, D	208	882	0.236	207	229	0.2	0.2	5.283	A
E - Unnamed Road	Entry	1	1	A, F	0	800	0.000	0	0	0.0	0.0	0.000	A
			2	A, B, C, D, E	0	800	0.000	0	0	0.0	0.0	0.000	A

	Exit	1	1		17			17	19	0.0	0.0	0.000	A
F - A140 North	Entry	1	1	A	102	649	0.158	101	107	0.1	0.2	6.238	A
			2	B, C	247	643	0.385	249	254	0.4	0.5	9.067	A
			3	D, E, F	116	625	0.187	115	119	0.2	0.2	7.382	A
		2	1	(A, B, C)	236			236	246	0.0	0.0	0.009	A
			2	(C, D, E, F)	229			229	235	0.0	0.0	0.019	A
		3	1	((A, B, C, D, E, F))	465			465	481	0.0	0.0	0.000	A
	Exit	1	1		451			451	482	0.0	0.0	0.000	A

06:45 - 07:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	Entry	1	1	B, C	295	891	0.330	294	302	0.5	0.6	5.688	A
			2	A, D, E, F	104	884	0.117	104	108	0.1	0.1	4.396	A
	Exit	1	1		394			394	407	0.0	0.0	0.000	A
B - Markshall Farm Road	Entry	1	1	C, D, E	39	479	0.080	39	41	0.0	0.1	7.396	A
			2	A, B, D, E, F	57	478	0.120	57	57	0.1	0.1	8.298	A
			1	(A, B, C, D, E, F)	96			96	98	0.0	0.0	0.003	A
Exit	1	1		50			50	51	0.0	0.0	0.000	A	
C - A140 South	Entry	1	1	D	299	757	0.395	298	322	0.6	0.6	8.018	A
			2	E, F	190	767	0.248	189	204	0.3	0.3	5.595	A
			3	A, B, C, F	375	761	0.493	374	395	0.5	0.8	7.568	A
		2	1	(D, E, F)	440			440	478	0.0	0.0	0.013	A
			2	(A, B, C, E, F)	424			424	444	0.0	0.0	0.003	A
		3	1	((A, B, C, D, E, F))	864			864	923	0.0	0.0	0.000	A
Exit	1	1		821			821	866	0.0	0.0	0.000	A	
D - A47 Eastbound	Entry	1	1	E, F	174	862	0.202	174	172	0.1	0.3	5.349	A
			2	A, B, C, D	266	825	0.322	267	291	0.2	0.5	6.550	A
	Exit	1	1		497			497	530	0.0	0.0	0.000	A
E - Unnamed Road	Entry	1	1	A, F	0	714	0.000	0	0	0.0	0.0	0.000	A
			2	A, B, C, D, E	0	714	0.000	0	0	0.0	0.0	0.000	A
Exit	1	1		22			22	25	0.0	0.0	0.000	A	
F - A140 North	Entry	1	1	A	126	629	0.201	127	129	0.2	0.2	7.041	A
			2	B, C	295	610	0.485	295	308	0.5	1.1	11.468	B
			3	D, E, F	145	601	0.241	143	151	0.2	0.4	8.086	A
		2	1	(A, B, C)	287			287	296	0.0	0.0	0.095	A
			2	(C, D, E, F)	280			280	296	0.0	0.0	0.126	A
		3	1	((A, B, C, D, E, F))	567			567	592	0.0	0.0	0.007	A
	Exit	1	1		574			574	603	0.0	0.0	0.000	A

07:00 - 07:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	Entry	1	1	B, C	277	891	0.311	275	298	0.6	0.5	6.033	A
			2	A, D, E, F	99	902	0.109	100	106	0.1	0.1	4.450	A
	Exit	1	1		394			394	413	0.0	0.0	0.000	A
B - Markshall Farm Road	Entry	1	1	C, D, E	36	484	0.075	36	38	0.1	0.0	6.892	A
			2	A, B, D, E, F	56	483	0.115	56	57	0.1	0.1	7.760	A
			1	(A, B, C, D, E, F)	92			92	95	0.0	0.0	0.000	A
Exit	1	1		53			53	51	0.0	0.0	0.000	A	
C - A140 South	Entry	1	1	D	307	761	0.403	306	330	0.6	0.6	7.832	A
			2	E, F	189	768	0.246	190	196	0.3	0.3	5.503	A
			3	A, B, C, F	371	771	0.481	374	397	0.8	0.7	7.453	A
		2	1	(D, E, F)	451			451	481	0.0	0.0	0.025	A
			2	(A, B, C, E, F)	416			416	442	0.0	0.0	0.011	A
		3	1	((A, B, C, D, E, F))	868			868	923	0.0	0.0	0.000	A
Exit	1	1		796			796	861	0.0	0.0	0.000	A	
D - A47 Eastbound	Entry	1	1	E, F	166	871	0.189	166	171	0.3	0.3	5.232	A
			2	A, B, C, D	260	815	0.319	262	286	0.5	0.4	6.705	A
	Exit	1	1		496			496	534	0.0	0.0	0.000	A
E - Unnamed Road	Entry	1	1	A, F	0	720	0.000	0	0	0.0	0.0	0.000	A
			2	A, B, C, D, E	0	720	0.000	0	0	0.0	0.0	0.000	A
Exit	1	1		17			17	22	0.0	0.0	0.000	A	
F - A140 North	Entry	1	1	A	124	624	0.198	123	128	0.2	0.2	6.679	A
			2	B, C	293	611	0.481	296	313	1.1	0.7	11.133	B
			3	D, E, F	135	597	0.225	134	147	0.4	0.3	8.019	A
		2	1	(A, B, C)	278			278	289	0.0	0.0	0.033	A
			2	(C, D, E, F)	274			274	296	0.0	0.0	0.020	A
		3	1	((A, B, C, D, E, F))	552			552	586	0.0	0.0	0.000	A
	Exit	1	1		562			562	588	0.0	0.0	0.000	A

07:15 - 07:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	Entry	1	1	B, C	243	950	0.255	243	249	0.5	0.3	5.406	A
			2	A, D, E, F	88	938	0.093	87	89	0.1	0.2	4.176	A
	Exit	1	1		313			313	343	0.0	0.0	0.000	A
B - Markshall Farm Road	Entry	1	1	C, D, E	34	535	0.063	34	33	0.0	0.1	7.105	A
			2	A, B, D, E, F	53	528	0.100	52	51	0.1	0.1	7.241	A
			1	(A, B, C, D, E, F)	87			87	85	0.0	0.0	0.013	A
Exit	1	1		38			38	39	0.0	0.0	0.000	A	
C - A140 South	Entry	1	1	D	263	770	0.342	262	274	0.6	0.5	7.224	A
			2	E, F	147	785	0.186	146	156	0.3	0.2	5.039	A
			3	A, B, C, F	306	767	0.397	304	332	0.7	0.6	6.856	A
		2	1	(D, E, F)	376			376	396	0.0	0.0	0.017	A
			2	(A, B, C, E, F)	339			339	366	0.0	0.0	0.000	A
		3	1	((A, B, C, D, E, F))	715			715	762	0.0	0.0	0.000	A
Exit	1	1		677			677	713	0.0	0.0	0.000	A	
D - A47 Eastbound	Entry	1	1	E, F	130	922	0.140	130	142	0.3	0.2	4.661	A
			2	A, B, C, D	214	872	0.246	215	239	0.4	0.3	5.692	A
	Exit	1	1		424			424	445	0.0	0.0	0.000	A
E - Unnamed Road	Entry	1	1	A, F	0	792	0.000	0	0	0.0	0.0	0.000	A
			2	A, B, C, D, E	0	792	0.000	0	0	0.0	0.0	0.000	A
Exit	1	1		15			15	19	0.0	0.0	0.000	A	

F - A140 North	Entry	1	1	A	100	653	0.153	102	104	0.2	0.1	6.386	A
			2	B, C	243	642	0.380	244	252	0.7	0.6	9.769	A
			3	D, E, F	112	613	0.182	113	124	0.3	0.2	7.364	A
	2	1	(A, B, C)	222			222	234	0.0	0.0	0.019	A	
		2	(C, D, E, F)	233			233	245	0.0	0.0	0.014	A	
	3	1	((A, B, C, D, E, F))	455			455	479	0.0	0.0	0.000	A	
Exit	1	1		465			465	489	0.0	0.0	0.000	A	

Lanes: Queue Variation Results for each time segment

06:30 - 06:45

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	
A - A47 Westbound	Entry	1	1	0.57	0.00	0.00	1.59	2.22	
			2	0.10	0.00	0.00	0.00	0.51	
			Exit	1	1	0.00	0.00	0.00	0.00
B - Markshall Farm Road	Entry	1	1	0.04	0.00	0.00	0.00	0.99	
			2	0.12	0.00	0.00	0.05	0.61	
			Exit	1	1	0.00	0.00	0.00	0.00
C - A140 South	Entry	1	1	0.63	0.00	0.00	1.75	2.37	
			2	0.25	0.00	0.00	0.57	0.84	
			3	0.51	0.00	0.00	0.99	1.52	
		2	1	0.00	0.00	0.00	0.00	0.00	
			2	0.00	0.00	0.00	0.00	0.00	
			3	1	0.00	0.00	0.00	0.00	0.00
Exit	1	1	0.00	0.00	0.00	0.00	0.00		
D - A47 Eastbound	Entry	1	1	0.17	0.00	0.00	0.39	0.78	
			2	0.25	0.00	0.00	0.63	1.19	
			Exit	1	1	0.00	0.00	0.00	0.00
E - Unnamed Road	Entry	1	1	0.00	0.00	0.00	0.00	0.00	
			2	0.00	0.00	0.00	0.00	0.00	
			Exit	1	1	0.00	0.00	0.00	0.00
F - A140 North	Entry	1	1	0.19	0.00	0.00	0.44	1.92	
			2	0.52	0.00	0.00	1.20	2.85	
			3	0.26	0.00	0.00	0.70	1.84	
		2	1	0.00	0.00	0.00	0.00	0.00	
			2	0.00	0.00	0.00	0.00	0.00	
			3	1	0.00	0.00	0.00	0.00	0.00
		Exit	1	1	0.00	0.00	0.00	0.00	0.00

06:45 - 07:00

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	
A - A47 Westbound	Entry	1	1	0.55	0.00	0.00	1.51	2.85	
			2	0.14	0.00	0.00	0.27	0.67	
			Exit	1	1	0.00	0.00	0.00	0.00
B - Markshall Farm Road	Entry	1	1	0.07	0.00	0.00	0.00	0.99	
			2	0.13	0.00	0.00	0.00	1.98	
			Exit	1	1	0.00	0.00	0.00	0.00
C - A140 South	Entry	1	1	0.60	0.00	0.00	1.55	2.38	
			2	0.32	0.00	0.00	0.74	1.89	
			3	0.83	0.00	0.00	1.95	2.65	
		2	1	0.00	0.00	0.00	0.00	0.00	
			2	0.00	0.00	0.00	0.00	0.00	
			3	1	0.00	0.00	0.00	0.00	0.00
Exit	1	1	0.00	0.00	0.00	0.00	0.00		
D - A47 Eastbound	Entry	1	1	0.29	0.00	0.00	0.74	1.45	
			2	0.52	0.00	0.00	1.54	2.69	
			Exit	1	1	0.00	0.00	0.00	0.00
E - Unnamed Road	Entry	1	1	0.00	0.00	0.00	0.00	0.00	
			2	0.00	0.00	0.00	0.00	0.00	
			Exit	1	1	0.00	0.00	0.00	0.00
F - A140 North	Entry	1	1	0.23	0.00	0.00	0.55	0.80	
			2	1.14	0.00	0.09	3.27	4.09	
			3	0.38	0.00	0.00	0.98	1.50	
		2	1	0.00	0.00	0.00	0.00	0.00	
			2	0.00	0.00	0.00	0.00	0.00	
			3	1	0.00	0.00	0.00	0.00	0.00
		Exit	1	1	0.00	0.00	0.00	0.00	0.00

07:00 - 07:15

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	Entry	1	1	0.54	0.00	0.00	1.40	1.75
			2	0.14	0.00	0.00	0.21	0.74
			Exit	1	1	0.00	0.00	0.00
B - Markshall Farm Road	Entry	1	1	0.03	0.00	0.00	0.00	0.00
			2	0.12	0.00	0.00	0.98	0.98
			Exit	1	1	0.00	0.00	0.00
C - A140 South	Entry	1	1	0.63	0.00	0.00	1.48	1.70
			2	0.24	0.00	0.00	0.58	0.79
			3	0.70	0.00	0.00	1.76	2.39
		2	1	0.00	0.00	0.00	0.00	0.00
			2	0.00	0.00	0.00	0.00	0.00
			3	1	0.00	0.00	0.00	0.00
Exit	1	1	0.00	0.00	0.00	0.00	0.00	
D - A47 Eastbound	Entry	1	1	0.28	0.00	0.00	0.65	0.61
			2	0.47	0.00	0.00	1.17	2.05
			Exit	1	1	0.00	0.00	0.00
E - Unnamed Road	Entry	1	1	0.00	0.00	0.00	0.00	0.00
			2	0.00	0.00	0.00	0.00	0.00
			Exit	1	1	0.00	0.00	0.00
F - A140 North	Entry	1	1	0.23	0.00	0.00	0.61	1.94
			2	0.69	0.00	0.00	1.97	3.79
			3	0.33	0.00	0.00	0.81	1.31
		2	1	0.00	0.00	0.00	0.00	0.00
			2	0.00	0.00	0.00	0.00	0.00
			3	1	0.00	0.00	0.00	0.00

	Exit	1	1	0.00	0.00	0.00	0.00	0.00
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07:15 - 07:30

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	Entry	1	1	0.26	0.00	0.00	0.67	1.16
			2	0.17	0.00	0.00	0.31	0.76
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
B - Markshall Farm Road	Entry	1	1	0.09	0.00	0.00	0.00	1.00
			2	0.12	0.00	0.00	0.99	0.99
			1	0.00	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
C - A140 South	Entry	1	1	0.53	0.00	0.00	1.44	2.79
			2	0.18	0.00	0.00	0.46	0.75
			3	0.57	0.00	0.00	1.54	2.78
		2	1	0.00	0.00	0.00	0.00	0.00
			2	0.00	0.00	0.00	0.00	0.00
			3	1	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
D - A47 Eastbound	Entry	1	1	0.18	0.00	0.00	0.43	1.89
			2	0.35	0.00	0.00	0.95	1.54
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
E - Unnamed Road	Entry	1	1	0.00	0.00	0.00	0.00	0.00
			2	0.00	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
F - A140 North	Entry	1	1	0.13	0.00	0.00	0.05	0.59
			2	0.58	0.00	0.00	1.46	1.57
			3	0.18	0.00	0.00	0.37	0.75
		2	1	0.00	0.00	0.00	0.00	0.00
			2	0.00	0.00	0.00	0.00	0.00
			3	1	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

Existing Layout - 2021 - Construction Peak - Baseline , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A6 - Existing Layout [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	C - A140 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	F - A140 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D2 - 2021 - Construction Peak - Baseline , PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
6	A47 / A140 / Markshall Farm Road	Large Roundabout		A, B, C, D, E, F	15.75	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A - A47 Westbound	1466	89.30
B - Markshall Farm Road	1892	20.15
C - A140 South	649	28.20
D - A47 Eastbound	965	93.30
E - Unnamed Road	1711	29.90
F - A140 North	858	27.28

Slope / Intercept / Capacity

[same as above]

Lane Simulation: Arm options

[same as above]

Lanes

[same as above]

Entry Lane slope and intercept

[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)	Results for central hour only	Run automatically
D2	2021 - Construction Peak - Baseline	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 Westbound		ONE HOUR	✓	332	100.000
B - Markshall Farm Road		ONE HOUR	✓	88	100.000
C - A140 South		ONE HOUR	✓	803	100.000
D - A47 Eastbound		ONE HOUR	✓	525	100.000
E - Unnamed Road		ONE HOUR	✓	39	100.000
F - A140 North		ONE HOUR	✓	885	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	2	2	215	0	2	111
	B - Markshall Farm Road	4	1	7	46	0	30
	C - A140 South	266	19	0	217	2	299
	D - A47 Eastbound	3	40	260	0	2	220
	E - Unnamed Road	6	0	19	1	0	13
	F - A140 North	174	27	458	221	5	0

Proportions

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	0.01	0.01	0.65	0.00	0.01	0.33
	B - Markshall Farm Road	0.05	0.01	0.08	0.52	0.00	0.34
	C - A140 South	0.33	0.02	0.00	0.27	0.00	0.37
	D - A47 Eastbound	0.01	0.08	0.50	0.00	0.00	0.42
	E - Unnamed Road	0.15	0.00	0.49	0.03	0.00	0.33
	F - A140 North	0.20	0.03	0.52	0.25	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	0	0	2	0	0	1
	B - Markshall Farm Road	0	0	0	0	0	0
	C - A140 South	3	0	0	1	0	3
	D - A47 Eastbound	0	0	2	0	0	1
	E - Unnamed Road	0	0	0	100	0	23
	F - A140 North	1	0	1	1	80	0

Average PCU Per Veh

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	1.000	1.000	1.023	1.000	1.000	1.009
	B - Markshall Farm Road	1.000	1.000	1.000	1.000	1.000	1.000
	C - A140 South	1.026	1.000	1.000	1.005	1.000	1.027
	D - A47 Eastbound	1.000	1.000	1.019	1.000	1.000	1.014
	E - Unnamed Road	1.000	1.000	1.000	2.000	1.000	1.231
	F - A140 North	1.011	1.000	1.007	1.005	1.800	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
17:10-17:25	A - A47 Westbound	250	254
	B - Markshall Farm Road	66	66
	C - A140 South	605	617
	D - A47 Eastbound	395	401
	E - Unnamed Road	29	32
	F - A140 North	666	674
17:25-17:40	A - A47 Westbound	298	304
	B - Markshall Farm Road	79	79
	C - A140 South	722	736
	D - A47 Eastbound	472	479
	E - Unnamed Road	35	39
	F - A140 North	796	805
17:40-17:55	A - A47 Westbound	366	372
	B - Markshall Farm Road	97	97
	C - A140 South	884	902
	D - A47 Eastbound	578	587
	E - Unnamed Road	43	47
	F - A140 North	974	986
17:55-18:10	A - A47 Westbound	366	372
	B - Markshall Farm Road	97	97
	C - A140 South	884	902
	D - A47 Eastbound	578	587
	E - Unnamed Road	43	47
	F - A140 North	974	986
18:10-18:25	A - A47 Westbound	298	304
	B - Markshall Farm Road	79	79
	C - A140 South	722	736
	D - A47 Eastbound	472	479
	E - Unnamed Road	35	39
	F - A140 North	796	805
18:25-18:40	A - A47 Westbound	250	254
	B - Markshall Farm Road	66	66
	C - A140 South	605	617
	D - A47 Eastbound	395	401
	E - Unnamed Road	29	32
	F - A140 North	666	674

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 Westbound	6.34	0.7	2.3	A	332	332
B - Markshall Farm Road	9.56	0.3	0.9	A	89	89
C - A140 South	7.56	1.9	4.6	A	805	805
D - A47 Eastbound	6.42	1.1	3.1	A	521	521
E - Unnamed Road	6.67	0.1	0.9	A	38	38
F - A140 North	33.41	9.1	28.9	D	882	882

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	308	77	946	307	306	406	0.4	0.6	5.267	A
B - Markshall Farm Road	78	20	1172	78	77	81	0.1	0.2	7.778	A
C - A140 South	726	182	378	727	730	872	0.9	1.2	6.257	A
D - A47 Eastbound	469	117	674	469	478	431	0.5	0.7	5.299	A
E - Unnamed Road	34	9	1132	34	37	11	0.0	0.1	5.441	A
F - A140 North	795	199	559	793	797	607	1.6	3.1	12.990	B

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	369	92	1146	369	373	495	0.6	0.6	6.268	A
B - Markshall Farm Road	96	24	1412	96	94	102	0.2	0.3	9.484	A
C - A140 South	885	221	462	881	898	1046	1.2	1.8	7.416	A
D - A47 Eastbound	576	144	810	576	580	534	0.7	1.0	6.189	A
E - Unnamed Road	44	11	1375	44	47	12	0.1	0.1	6.386	A
F - A140 North	962	240	686	955	956	733	3.1	9.0	27.476	D

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
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					(PCU/hr)						
A - A47 Westbound	357	89	1143	357	370	502	0.6	0.7	6.342	A	
B - Markshall Farm Road	101	25	1406	101	99	95	0.3	0.2	9.555	A	
C - A140 South	893	223	470	894	907	1036	1.8	1.8	7.562	A	
D - A47 Eastbound	569	142	824	568	580	541	1.0	1.1	6.419	A	
E - Unnamed Road	40	10	1380	40	47	12	0.1	0.1	6.675	A	
F - A140 North	972	243	679	966	980	741	9.0	9.1	33.407	D	

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	295	74	945	294	302	409	0.7	0.4	5.389	A
B - Markshall Farm Road	80	20	1157	80	81	82	0.2	0.2	8.456	A
C - A140 South	715	179	383	714	735	854	1.8	1.4	6.486	A
D - A47 Eastbound	470	117	661	468	482	436	1.1	0.8	5.457	A
E - Unnamed Road	36	9	1119	35	41	10	0.1	0.1	5.662	A
F - A140 North	801	200	548	807	831	607	9.1	3.1	17.799	C

Queue Variation Results for each time segment

17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	0.54	0.00	0.00	1.11	1.91
B - Markshall Farm Road	0.23	0.00	0.00	0.54	0.83
C - A140 South	1.24	0.00	0.55	2.38	3.04
D - A47 Eastbound	0.74	0.00	0.00	1.82	2.57
E - Unnamed Road	0.06	0.00	0.00	0.00	-0.05
F - A140 North	3.08	0.00	2.07	6.22	7.80

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	0.64	0.00	0.00	1.62	2.30
B - Markshall Farm Road	0.26	0.00	0.00	0.64	0.89
C - A140 South	1.87	0.00	1.22	3.70	4.62
D - A47 Eastbound	1.03	0.00	0.22	1.93	3.07
E - Unnamed Road	0.10	0.00	0.00	0.00	0.47
F - A140 North	8.94	0.00	4.62	21.18	27.07

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	0.69	0.00	0.00	1.61	2.20
B - Markshall Farm Road	0.25	0.00	0.00	0.63	0.93
C - A140 South	1.81	0.00	0.92	3.65	4.57
D - A47 Eastbound	1.08	0.00	0.35	2.21	2.87
E - Unnamed Road	0.05	0.00	0.00	0.00	0.93
F - A140 North	9.09	0.13	5.18	18.62	28.89

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	0.44	0.00	0.00	0.95	1.61
B - Markshall Farm Road	0.19	0.00	0.00	0.48	0.79
C - A140 South	1.41	0.00	0.47	3.27	4.57
D - A47 Eastbound	0.75	0.00	0.00	1.73	2.43
E - Unnamed Road	0.05	0.00	0.00	0.00	0.91
F - A140 North	3.05	0.00	1.80	6.16	9.24

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

17:25 - 17:40

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	Entry	1	1	B, C	201	844	0.238	201	202	0.2	0.3	5.559	A
			2	A, D, E, F	107	859	0.125	106	104	0.2	0.2	4.713	A
	Exit	1	1		406			406	413	0.0	0.0	0.000	A
B - Markshall Farm Road	Entry	1	1	C, D, E	26	471	0.056	26	26	0.0	0.1	7.171	A
			2	A, B, D, E, F	52	471	0.111	51	51	0.1	0.2	8.094	A
	Exit	1	1	(A, B, C, D, E, F)	78			78	78	0.0	0.0	0.000	A
			1	1		81			81	80	0.0	0.0	0.000
C - A140 South	Entry	1	1	D	195	799	0.245	196	195	0.3	0.3	5.945	A
			2	E, F	174	781	0.223	175	174	0.1	0.2	5.156	A
			3	A, B, C, F	356	783	0.455	357	360	0.5	0.6	6.953	A
	Exit	1	1	(D, E, F)	335			335	333	0.0	0.0	0.000	A
			2	(A, B, C, E, F)	391			391	398	0.0	0.0	0.009	A
			3	1	((A, B, C, D, E, F))	726			726	731	0.0	0.0	0.000
	D - A47 Eastbound	Entry	1	1	D	872			872	871	0.0	0.0	0.000
2				E, F	195	929	0.210	195	200	0.2	0.3	4.817	A
Exit		1	1	A, B, C, D	273	925	0.295	274	278	0.3	0.4	5.647	A
E - Unnamed Road	Entry	1	1	A, F	13	612	0.021	13	15	0.0	0.0	5.848	A
			2	A, B, C, D, E	21	697	0.031	21	21	0.0	0.0	5.185	A
	Exit	1	1		11			11	14	0.0	0.0	0.000	A
F - A140 North	Entry	1	1	A	154	644	0.239	154	156	0.3	0.4	7.524	A
			2	B, C	441	646	0.682	440	435	1.0	2.1	16.094	C
			3	D, E, F	200	633	0.315	200	206	0.3	0.5	8.346	A
	Exit	1	1	(A, B, C)	386			386	390	0.0	0.1	0.524	A
			2	(C, D, E, F)	409			409	412	0.0	0.1	0.471	A
			3	1	((A, B, C, D, E, F))	795			795	803	0.0	0.0	0.031
	Exit	1	1		607			607	613	0.0	0.0	0.000	A

17:40 - 17:55

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Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	Entry	1	1	B, C	245	770	0.318	245	246	0.3	0.4	6.788	A
			2	A, D, E, F	124	780	0.159	124	128	0.2	0.2	5.279	A
	Exit	1	1		495			495	500	0.0	0.0	0.000	A
B - Markshall Farm Road	Entry	1	1	C, D, E	34	411	0.082	34	33	0.1	0.1	8.809	A
			2	A, B, D, E, F	63	411	0.153	62	61	0.2	0.2	9.831	A
	Exit	2	1	(A, B, C, D, E, F)	96			96	94	0.0	0.0	0.010	A
C - A140 South	Entry	1	1	D	240	770	0.311	239	239	0.3	0.4	6.633	A
			2	E, F	221	753	0.293	220	227	0.2	0.4	5.937	A
			3	A, B, C, F	425	755	0.562	423	433	0.6	1.0	8.595	A
	Entry	2	1	(D, E, F)	408			408	412	0.0	0.0	0.000	A
			2	(A, B, C, E, F)	477			477	489	0.0	0.0	0.029	A
			3	((A, B, C, D, E, F))	885			885	901	0.0	0.0	0.000	A
	Exit	1	1		1046			1046	1051	0.0	0.0	0.000	A
	D - A47 Eastbound	Entry	1	1	E, F	244	872	0.279	243	244	0.3	0.4	5.574
2				A, B, C, D	333	871	0.382	333	336	0.4	0.6	6.638	A
Exit		1	1		534			534	530	0.0	0.0	0.000	A
E - Unnamed Road	Entry	1	1	A, F	19	545	0.034	18	20	0.0	0.1	7.046	A
			2	A, B, C, D, E	25	621	0.041	26	27	0.0	0.0	5.960	A
	Exit	1	1		12			12	15	0.0	0.0	0.000	A
F - A140 North	Entry	1	1	A	184	611	0.301	183	188	0.4	0.5	8.920	A
			2	B, C	523	613	0.852	522	519	2.1	4.1	26.417	D
			3	D, E, F	248	605	0.410	249	249	0.5	0.8	10.477	B
	Entry	2	1	(A, B, C)	462			460	468	0.1	1.0	5.058	A
			2	(C, D, E, F)	493			494	497	0.1	0.9	4.761	A
			3	((A, B, C, D, E, F))	962			955	973	0.0	1.6	3.311	A
	Exit	1	1		733			733	753	0.0	0.0	0.000	A

17:55 - 18:10

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	Entry	1	1	B, C	233	769	0.304	234	242	0.4	0.5	6.796	A
			2	A, D, E, F	124	781	0.159	124	128	0.2	0.2	5.495	A
	Exit	1	1		502			502	510	0.0	0.0	0.000	A
B - Markshall Farm Road	Entry	1	1	C, D, E	36	412	0.088	37	36	0.1	0.1	9.001	A
			2	A, B, D, E, F	64	412	0.156	64	63	0.2	0.2	9.867	A
	Exit	2	1	(A, B, C, D, E, F)	101			101	98	0.0	0.0	0.002	A
C - A140 South	Entry	1	1	D	241	768	0.314	241	243	0.4	0.4	6.773	A
			2	E, F	225	752	0.299	225	230	0.4	0.3	5.926	A
			3	A, B, C, F	428	751	0.570	429	434	1.0	1.0	8.836	A
	Entry	2	1	(D, E, F)	411			411	415	0.0	0.0	0.000	A
			2	(A, B, C, E, F)	483			483	491	0.0	0.0	0.038	A
			3	((A, B, C, D, E, F))	893			893	907	0.0	0.0	0.000	A
	Exit	1	1		1036			1036	1063	0.0	0.0	0.000	A
	D - A47 Eastbound	Entry	1	1	E, F	241	864	0.279	241	242	0.4	0.4	5.902
2				A, B, C, D	328	866	0.379	327	337	0.6	0.7	6.791	A
Exit		1	1		541			541	541	0.0	0.0	0.000	A
E - Unnamed Road	Entry	1	1	A, F	16	571	0.028	16	21	0.1	0.0	7.216	A
			2	A, B, C, D, E	24	616	0.038	24	26	0.0	0.0	6.287	A
	Exit	1	1		12			12	16	0.0	0.0	0.000	A
F - A140 North	Entry	1	1	A	189	612	0.309	189	193	0.5	0.5	9.491	A
			2	B, C	528	614	0.859	525	531	4.1	4.5	29.963	D
			3	D, E, F	253	604	0.419	253	256	0.8	0.8	11.326	B
	Entry	2	1	(A, B, C)	466			466	474	1.0	0.9	7.467	A
			2	(C, D, E, F)	504			504	508	0.9	0.8	6.868	A
			3	((A, B, C, D, E, F))	972			970	981	1.6	1.5	5.071	A
	Exit	1	1		741			741	756	0.0	0.0	0.000	A

18:10 - 18:25

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	Entry	1	1	B, C	191	846	0.226	191	197	0.5	0.3	5.664	A
			2	A, D, E, F	103	857	0.121	103	104	0.2	0.2	4.877	A
	Exit	1	1		409			409	419	0.0	0.0	0.000	A
B - Markshall Farm Road	Entry	1	1	C, D, E	28	476	0.059	28	29	0.1	0.1	8.498	A
			2	A, B, D, E, F	52	476	0.110	52	52	0.2	0.1	8.433	A
	Exit	2	1	(A, B, C, D, E, F)	80			80	81	0.0	0.0	0.000	A
C - A140 South	Entry	1	1	D	192	795	0.241	193	194	0.4	0.3	5.957	A
			2	E, F	175	779	0.225	174	180	0.3	0.3	5.401	A
			3	A, B, C, F	348	778	0.447	347	361	1.0	0.7	7.310	A
	Entry	2	1	(D, E, F)	330			330	335	0.0	0.0	0.000	A
			2	(A, B, C, E, F)	385			385	398	0.0	0.0	0.007	A
			3	((A, B, C, D, E, F))	715			715	733	0.0	0.0	0.000	A
	Exit	1	1		854			854	888	0.0	0.0	0.000	A
	D - A47 Eastbound	Entry	1	1	E, F	200	934	0.215	200	204	0.4	0.3	5.048
2				A, B, C, D	269	931	0.289	268	278	0.7	0.5	5.757	A
Exit		1	1		436			436	443	0.0	0.0	0.000	A
E - Unnamed Road	Entry	1	1	A, F	15	613	0.025	15	18	0.0	0.0	5.948	A
			2	A, B, C, D, E	20	713	0.028	20	22	0.0	0.0	5.462	A
	Exit	1	1		10			10	13	0.0	0.0	0.000	A
F - A140 North	Entry	1	1	A	162	645	0.252	162	163	0.5	0.3	7.915	A
			2	B, C	437	650	0.672	438	456	4.5	2.1	19.366	C
			3	D, E, F	206	639	0.323	207	212	0.8	0.5	9.158	A
	Entry	2	1	(A, B, C)	392			394	400	0.9	0.1	2.438	A
			2	(C, D, E, F)	410			411	419	0.8	0.1	2.288	A
			3	((A, B, C, D, E, F))	801			802	813	1.5	0.0	1.492	A
	Exit	1	1		607			607	626	0.0	0.0	0.000	A

Lanes: Queue Variation Results for each time segment

17:25 - 17:40

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	Entry	1	1	0.31	0.00	0.00	0.73	1.09
			2	0.24	0.00	0.00	0.58	0.91
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
B - Markshall Farm Road	Entry	1	1	0.08	0.00	0.00	0.00	0.31
			2	0.16	0.00	0.00	0.32	0.73
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
C - A140 South	Entry	1	1	0.34	0.00	0.00	0.84	1.30
			2	0.25	0.00	0.00	0.63	0.93
			3	0.65	0.00	0.00	1.44	1.89
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
			2	0.00	0.00	0.00	0.00	0.00
			3	1	0.00	0.00	0.00	0.00
D - A47 Eastbound	Entry	1	1	0.29	0.00	0.00	0.71	0.95
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
E - Unnamed Road	Entry	1	1	0.03	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
F - A140 North	Entry	1	1	0.40	0.00	0.00	0.89	1.70
			2	2.09	0.00	0.85	4.91	7.95
			3	0.46	0.00	0.00	1.24	1.81
	Exit	1	1	0.06	0.00	0.00	0.00	0.00
			2	0.07	0.00	0.00	0.00	0.00
			3	1	0.00	0.00	0.00	0.00

17:40 - 17:55

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	Entry	1	1	0.39	0.00	0.00	1.17	1.92
			2	0.25	0.00	0.00	0.60	0.89
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
B - Markshall Farm Road	Entry	1	1	0.06	0.00	0.00	0.00	1.00
			2	0.20	0.00	0.00	0.51	0.82
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
C - A140 South	Entry	1	1	0.38	0.00	0.00	0.87	1.33
			2	0.44	0.00	0.00	0.96	1.68
			3	1.05	0.00	0.21	2.37	3.06
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
			2	0.00	0.00	0.00	0.00	0.00
			3	1	0.00	0.00	0.00	0.00
D - A47 Eastbound	Entry	1	1	0.38	0.00	0.00	0.92	1.50
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
E - Unnamed Road	Entry	1	1	0.06	0.00	0.00	0.00	0.07
	Exit	1	1	0.04	0.00	0.00	0.00	0.00
F - A140 North	Entry	1	1	0.51	0.00	0.00	1.34	1.85
			2	4.15	0.00	3.17	7.64	7.80
			3	0.79	0.00	0.00	1.79	2.54
	Exit	1	1	0.99	0.00	0.00	3.76	5.96
			2	0.92	0.00	0.00	3.87	5.91
			3	1	1.59	0.00	0.00	3.17

17:55 - 18:10

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	Entry	1	1	0.47	0.00	0.00	1.08	1.78
			2	0.21	0.00	0.00	0.55	0.94
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
B - Markshall Farm Road	Entry	1	1	0.08	0.00	0.00	0.00	1.00
			2	0.17	0.00	0.00	0.34	0.76
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
C - A140 South	Entry	1	1	0.43	0.00	0.00	0.93	1.60
			2	0.37	0.00	0.00	0.81	1.27
			3	1.01	0.00	0.16	2.34	3.25
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
			2	0.00	0.00	0.00	0.00	0.00
			3	1	0.00	0.00	0.00	0.00
D - A47 Eastbound	Entry	1	1	0.37	0.00	0.00	0.81	1.19
	Exit	1	1	0.71	0.00	0.00	1.72	2.50
E - Unnamed Road	Entry	1	1	0.02	0.00	0.00	0.00	0.00
	Exit	1	1	0.03	0.00	0.00	0.00	0.00
F - A140 North	Entry	1	1	0.55	0.00	0.00	1.48	2.28
			2	4.54	0.00	4.20	7.94	7.94
			3	0.81	0.00	0.00	2.26	2.88
	Exit	1	1	0.92	0.00	0.00	3.88	5.95
			2	0.82	0.00	0.00	3.37	5.90
			3	1	1.47	0.00	0.00	10.34

18:10 - 18:25

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	Entry	1	1	0.27	0.00	0.00	0.69	1.08
			2	0.17	0.00	0.00	0.39	0.77
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
B - Markshall Farm Road	Entry	1	1	0.05	0.00	0.00	0.00	1.00
			2	0.14	0.00	0.00	0.25	0.67
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

C - A140 South	Entry	1	1	0.29	0.00	0.00	0.70	0.96
			2	0.35	0.00	0.00	0.82	1.37
			3	0.76	0.00	0.00	1.81	2.45
	2	1	0.00	0.00	0.00	0.00	0.00	
		2	0.00	0.00	0.00	0.00	0.00	
		3	0.00	0.00	0.00	0.00	0.00	
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
D - A47 Eastbound	Entry	1	1	0.26	0.00	0.00	0.63	0.92
			2	0.49	0.00	0.00	1.11	1.93
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
E - Unnamed Road	Entry	1	1	0.02	0.00	0.00	0.00	0.00
			2	0.04	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
F - A140 North	Entry	1	1	0.32	0.00	0.00	0.73	0.94
			2	2.13	0.00	0.75	5.37	7.95
			3	0.47	0.00	0.00	1.00	1.65
	2	1	0.08	0.00	0.00	0.00	0.00	
		2	0.06	0.00	0.00	0.00	0.00	
		3	0.00	0.00	0.00	0.00	0.00	
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

Existing Layout - 2025 - Forecast Background flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A6 - Existing Layout [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	C - A140 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	F - A140 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D3 - 2025 - Forecast Background flows, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
6	A47 / A140 / Markshall Farm Road	Large Roundabout		A, B, C, D, E, F	8.01	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A - A47 Westbound	1466	89.30
B - Markshall Farm Road	1892	20.15
C - A140 South	649	28.20
D - A47 Eastbound	965	93.30
E - Unnamed Road	1711	29.90
F - A140 North	858	27.28

Slope / Intercept / Capacity

[same as above]

Lane Simulation: Arm options

[same as above]

Lanes

[same as above]

Entry Lane slope and intercept

[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)	Results for central hour only	Run automatically
D3	2025 - Forecast Background flows	AM	ONE HOUR	06:15	07:45	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 Westbound		ONE HOUR	✓	381	100.000
B - Markshall Farm Road		ONE HOUR	✓	93	100.000
C - A140 South		ONE HOUR	✓	849	100.000
D - A47 Eastbound		ONE HOUR	✓	412	100.000
E - Unnamed Road		ONE HOUR	✓	4	100.000
F - A140 North		ONE HOUR	✓	544	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	1	5	276	0	3	96
	B - Markshall Farm Road	4	0	5	61	0	23
	C - A140 South	256	9	0	299	4	281
	D - A47 Eastbound	1	17	236	0	5	153
	E - Unnamed Road	1	0	2	0	0	1
	F - A140 North	122	18	271	128	5	0

Proportions

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	0.00	0.01	0.72	0.00	0.01	0.25
	B - Markshall Farm Road	0.04	0.00	0.05	0.66	0.00	0.25
	C - A140 South	0.30	0.01	0.00	0.35	0.00	0.33
	D - A47 Eastbound	0.00	0.04	0.57	0.00	0.01	0.37
	E - Unnamed Road	0.25	0.00	0.50	0.00	0.00	0.25
	F - A140 North	0.22	0.03	0.50	0.24	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	0	0	5	0	0	6
	B - Markshall Farm Road	0	0	0	2	0	0
	C - A140 South	7	0	0	7	0	6
	D - A47 Eastbound	0	0	13	0	40	6
	E - Unnamed Road	0	0	0	0	0	100
	F - A140 North	4	0	6	7	40	0

Average PCU Per Veh

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	1.000	1.000	1.051	1.000	1.000	1.056
	B - Markshall Farm Road	1.000	1.000	1.000	1.018	1.000	1.000
	C - A140 South	1.071	1.000	1.000	1.072	1.000	1.061
	D - A47 Eastbound	1.000	1.000	1.128	1.000	1.400	1.056
	E - Unnamed Road	1.000	1.000	1.000	1.000	1.000	2.000
	F - A140 North	1.035	1.000	1.056	1.067	1.400	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
06:15-06:30	A - A47 Westbound	287	301
	B - Markshall Farm Road	70	71
	C - A140 South	639	682
	D - A47 Eastbound	310	341
	E - Unnamed Road	0	0
	F - A140 North	410	432
06:30-06:45	A - A47 Westbound	343	360
	B - Markshall Farm Road	84	85
	C - A140 South	763	814
	D - A47 Eastbound	370	407
	E - Unnamed Road	0	0
	F - A140 North	489	516
06:45-07:00	A - A47 Westbound	419	441
	B - Markshall Farm Road	102	104
	C - A140 South	935	997
	D - A47 Eastbound	454	499
	E - Unnamed Road	0	0
	F - A140 North	599	632
07:00-07:15	A - A47 Westbound	419	441
	B - Markshall Farm Road	102	104
	C - A140 South	935	997
	D - A47 Eastbound	454	499
	E - Unnamed Road	0	0
	F - A140 North	599	632
07:15-07:30	A - A47 Westbound	343	360
	B - Markshall Farm Road	84	85
	C - A140 South	763	814
	D - A47 Eastbound	370	407
	E - Unnamed Road	0	0
	F - A140 North	489	516
07:30-07:45	A - A47 Westbound	287	301
	B - Markshall Farm Road	70	71
	C - A140 South	639	682
	D - A47 Eastbound	310	341
	E - Unnamed Road	0	0
	F - A140 North	410	432

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 Westbound	6.12	0.8	3.4	A	383	383
B - Markshall Farm Road	7.93	0.4	2.0	A	92	92
C - A140 South	8.15	2.9	7.7	A	852	852
D - A47 Eastbound	6.58	0.9	3.6	A	408	408
E - Unnamed Road	0.00	0.0	~1	A	0	0
F - A140 North	10.22	2.0	6.8	B	552	552

Main Results for each time segment

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	350	88	627	353	363	356	0.2	0.4	4.961	A
B - Markshall Farm Road	83	21	931	83	82	49	0.1	0.2	7.634	A
C - A140 South	771	193	288	775	811	727	0.9	1.2	6.476	A
D - A47 Eastbound	363	91	624	363	404	438	0.4	0.5	5.508	A
E - Unnamed Road	0	0	973	0	0	15	0.0	0.0	0.000	A
F - A140 North	507	127	477	506	521	495	0.7	1.2	8.651	A

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	417	104	756	417	436	437	0.4	0.7	5.935	A
B - Markshall Farm Road	105	26	1123	102	104	51	0.2	0.4	7.930	A
C - A140 South	932	233	345	926	976	879	1.2	2.8	7.990	A
D - A47 Eastbound	439	110	738	439	492	533	0.5	0.8	6.377	A
E - Unnamed Road	0	0	1159	0	0	19	0.0	0.0	0.000	A
F - A140 North	617	154	580	614	638	577	1.2	2.0	10.221	B

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
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					(PCU/hr)					
A - A47 Westbound	409	102	741	411	439	413	0.7	0.5	6.117	A
B - Markshall Farm Road	101	25	1100	101	105	51	0.4	0.2	7.896	A
C - A140 South	930	232	347	931	1008	855	2.8	2.4	8.148	A
D - A47 Eastbound	462	115	742	460	503	535	0.8	0.8	6.579	A
E - Unnamed Road	0	0	1183	0	0	18	0.0	0.0	0.000	A
F - A140 North	579	145	573	581	625	610	2.0	1.4	10.071	B

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	356	89	622	355	359	349	0.5	0.7	5.371	A
B - Markshall Farm Road	78	20	935	77	85	42	0.2	0.2	7.509	A
C - A140 South	775	194	295	777	820	715	2.4	1.4	6.668	A
D - A47 Eastbound	368	92	631	368	404	443	0.8	0.6	5.509	A
E - Unnamed Road	0	0	984	0	0	15	0.0	0.0	0.000	A
F - A140 North	506	127	473	499	527	512	1.4	1.6	8.613	A

Queue Variation Results for each time segment

06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	0.35	0.00	0.00	0.83	1.90
B - Markshall Farm Road	0.16	0.00	0.00	0.32	0.73
C - A140 South	1.23	0.00	0.43	2.89	3.43
D - A47 Eastbound	0.54	0.00	0.00	1.32	1.94
E - Unnamed Road	0.00	0.00	0.00	0.00	0.00
F - A140 North	1.28	0.00	0.47	2.92	3.60

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	0.77	0.00	0.00	2.21	3.39
B - Markshall Farm Road	0.40	0.00	0.00	1.96	1.96
C - A140 South	2.92	0.00	1.75	6.29	7.71
D - A47 Eastbound	0.90	0.00	0.00	2.54	3.60
E - Unnamed Road	0.00	0.00	0.00	0.00	0.00
F - A140 North	2.04	0.00	0.71	5.43	6.73

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	0.58	0.00	0.00	1.57	2.25
B - Markshall Farm Road	0.21	0.00	0.00	0.53	0.88
C - A140 South	2.55	0.00	1.51	4.96	7.09
D - A47 Eastbound	0.82	0.00	0.03	1.75	2.46
E - Unnamed Road	0.00	0.00	0.00	0.00	0.00
F - A140 North	1.36	0.00	0.48	2.77	3.95

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	0.70	0.00	0.00	1.38	2.04
B - Markshall Farm Road	0.22	0.00	0.00	0.58	0.89
C - A140 South	1.52	0.00	0.72	2.59	3.36
D - A47 Eastbound	0.65	0.00	0.00	1.65	3.62
E - Unnamed Road	0.00	0.00	0.00	0.00	0.00
F - A140 North	1.65	0.00	0.62	4.04	4.58

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

06:30 - 06:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service		
A - A47 Westbound	Entry	1	1	B, C	260	929	0.280	263	267	0.2	0.2	5.111	A		
			2	A, D, E, F	91	923	0.098	90	95	0.1	0.2	4.537	A		
	Exit	1	1		356			356	374	0.0	0.0	0.000	A		
B - Markshall Farm Road	Entry	1	1	C, D, E	32	512	0.062	32	31	0.1	0.1	6.446	A		
			2	A, B, D, E, F	51	514	0.100	51	50	0.1	0.1	8.368	A		
	Exit	1	1	(A, B, C, D, E, F)	83			83	82	0.0	0.0	0.000	A		
			1	1		49			49	46	0.0	0.0	0.000	A	
C - A140 South	Entry	1	1	D	269	773	0.346	267	283	0.3	0.5	7.163	A		
			2	E, F	159	792	0.202	161	168	0.2	0.2	5.212	A		
			3	A, B, C, F	343	779	0.440	345	360	0.4	0.5	6.502	A		
	Exit	1	1	(D, E, F)	394			394	414	0.0	0.0	0.017	A		
			2	(A, B, C, E, F)	377			377	398	0.0	0.0	0.008	A		
			3	1	((A, B, C, D, E, F))	771			771	812	0.0	0.0	0.000	A	
D - A47 Eastbound	Entry	1	1	E, F	135	890	0.152	135	146	0.2	0.2	4.870	A		
			2	A, B, C, D	228	848	0.269	228	258	0.2	0.4	5.881	A		
	Exit	1	1		438			438	457	0.0	0.0	0.000	A		
E - Unnamed Road	Entry	1	1	A, F	0	767	0.000	0	0	0.0	0.0	0.000	A		
			2	A, B, C, D, E	0	767	0.000	0	0	0.0	0.0	0.000	A		
F - A140 North	Exit	1	1		15			15	18	0.0	0.0	0.000	A		
			Entry	1	1	A	115	644	0.179	115	116	0.2	0.2	6.602	A
					2	B, C	273	630	0.433	273	279	0.4	0.8	10.145	B
	3	D, E, F			118	617	0.190	118	126	0.1	0.2	7.061	A		
	Exit	1	1	(A, B, C)	260			260	262	0.0	0.0	0.031	A		
			2	(C, D, E, F)	245			245	261	0.0	0.0	0.042	A		
			3	1	((A, B, C, D, E, F))	507			507	523	0.0	0.0	0.000	A	
Exit	1	1		495			495	516	0.0	0.0	0.000	A			

06:45 - 07:00

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Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	Entry	1	1	B, C	312	883	0.354	312	325	0.2	0.5	6.320	A
			2	A, D, E, F	105	865	0.121	105	112	0.2	0.2	4.811	A
	Exit	1	1		437			437	448	0.0	0.0	0.000	A
B - Markshall Farm Road	Entry	1	1	C, D, E	44	452	0.098	43	42	0.1	0.2	7.753	A
			2	A, B, D, E, F	61	462	0.131	59	62	0.1	0.2	8.048	A
	Exit	2	1	(A, B, C, D, E, F)	105			105	105	0.0	0.0	0.000	A
C - A140 South	Entry	1	1	D	333	755	0.441	327	344	0.5	1.3	8.470	A
			2	E, F	203	771	0.263	203	216	0.2	0.4	5.732	A
			3	A, B, C, F	396	763	0.518	395	416	0.5	1.1	8.689	A
	2	1	(D, E, F)	481			481	510	0.0	0.0	0.020	A	
		2	(A, B, C, E, F)	450			451	473	0.0	0.0	0.043	A	
	Exit	3	1	((A, B, C, D, E, F))	932			932	983	0.0	0.0	0.000	A
				1	1		879			879	938	0.0	0.0
D - A47 Eastbound	Entry	1	1	E, F	166	842	0.197	165	178	0.2	0.3	5.552	A
			2	A, B, C, D	273	800	0.341	275	314	0.4	0.6	6.867	A
E - Unnamed Road	Exit	1	1		533			533	562	0.0	0.0	0.000	A
			1	1	A, F	0	701	0.000	0	0	0.0	0.0	0.000
F - A140 North	Entry	1	1	A	143	613	0.234	142	141	0.2	0.4	7.553	A
			2	B, C	330	598	0.551	326	340	0.8	1.3	11.870	B
			3	D, E, F	144	577	0.248	145	157	0.2	0.3	8.713	A
	2	1	(A, B, C)	309			309	320	0.0	0.0	0.120	A	
		2	(C, D, E, F)	309			309	321	0.0	0.0	0.048	A	
	Exit	3	1	((A, B, C, D, E, F))	617			617	641	0.0	0.0	0.000	A
				1	1		577			577	620	0.0	0.0

07:00 - 07:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	Entry	1	1	B, C	303	875	0.346	303	320	0.5	0.4	6.660	A
			2	A, D, E, F	107	873	0.122	107	118	0.2	0.1	4.653	A
	Exit	1	1		413			413	446	0.0	0.0	0.000	A
B - Markshall Farm Road	Entry	1	1	C, D, E	40	466	0.086	39	40	0.2	0.1	7.416	A
			2	A, B, D, E, F	61	470	0.131	62	65	0.2	0.1	8.182	A
	Exit	2	1	(A, B, C, D, E, F)	101			101	104	0.0	0.0	0.008	A
C - A140 South	Entry	1	1	D	334	753	0.445	333	359	1.3	0.9	9.403	A
			2	E, F	200	763	0.262	200	221	0.4	0.4	5.560	A
			3	A, B, C, F	395	754	0.526	398	429	1.1	1.1	8.337	A
	2	1	(D, E, F)	485			485	522	0.0	0.0	0.063	A	
		2	(A, B, C, E, F)	445			445	485	0.0	0.0	0.035	A	
	Exit	3	1	((A, B, C, D, E, F))	930			930	1007	0.0	0.0	0.000	A
				1	1		855			855	917	0.0	0.0
D - A47 Eastbound	Entry	1	1	E, F	179	828	0.217	178	194	0.3	0.2	5.499	A
			2	A, B, C, D	283	805	0.351	281	309	0.6	0.6	7.285	A
E - Unnamed Road	Exit	1	1		535			535	581	0.0	0.0	0.000	A
			1	1	A, F	0	690	0.000	0	0	0.0	0.0	0.000
F - A140 North	Entry	1	1	A	132	617	0.214	132	137	0.4	0.3	7.771	A
			2	B, C	304	606	0.500	306	326	1.3	0.7	12.031	B
			3	D, E, F	143	592	0.242	144	162	0.3	0.4	7.976	A
	2	1	(A, B, C)	296			296	309	0.0	0.0	0.029	A	
		2	(C, D, E, F)	283			283	313	0.0	0.0	0.021	A	
	Exit	3	1	((A, B, C, D, E, F))	579			579	622	0.0	0.0	0.000	A
				1	1		610			610	659	0.0	0.0

07:15 - 07:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	Entry	1	1	B, C	259	924	0.280	257	261	0.4	0.6	5.698	A
			2	A, D, E, F	97	917	0.105	97	98	0.1	0.1	4.499	A
	Exit	1	1		349			349	364	0.0	0.0	0.000	A
B - Markshall Farm Road	Entry	1	1	C, D, E	27	488	0.055	27	33	0.1	0.1	7.473	A
			2	A, B, D, E, F	51	516	0.099	50	51	0.1	0.2	7.532	A
	Exit	2	1	(A, B, C, D, E, F)	78			78	85	0.0	0.0	0.000	A
C - A140 South	Entry	1	1	D	268	772	0.348	271	287	0.9	0.4	6.891	A
			2	E, F	166	777	0.214	165	177	0.4	0.2	5.224	A
			3	A, B, C, F	340	772	0.441	341	355	1.1	0.7	7.167	A
	2	1	(D, E, F)	409			409	426	0.0	0.0	0.007	A	
		2	(A, B, C, E, F)	365			365	389	0.0	0.1	0.012	A	
	Exit	3	1	((A, B, C, D, E, F))	775			775	815	0.0	0.0	0.000	A
				1	1		715			715	762	0.0	0.0
D - A47 Eastbound	Entry	1	1	E, F	143	888	0.161	142	152	0.2	0.3	4.758	A
			2	A, B, C, D	225	846	0.266	227	252	0.6	0.3	5.991	A
E - Unnamed Road	Exit	1	1		443			443	471	0.0	0.0	0.000	A
			1	1	A, F	0	761	0.000	0	0	0.0	0.0	0.000
F - A140 North	Entry	1	1	A	109	640	0.171	109	114	0.3	0.2	6.963	A
			2	B, C	271	633	0.428	264	281	0.7	1.1	9.875	A
			3	D, E, F	125	614	0.203	125	133	0.4	0.2	7.247	A
	2	1	(A, B, C)	256			256	263	0.0	0.0	0.019	A	
		2	(C, D, E, F)	250			249	265	0.0	0.0	0.018	A	
	Exit	3	1	((A, B, C, D, E, F))	506			506	529	0.0	0.0	0.000	A
				1	1		512			512	536	0.0	0.0

Lanes: Queue Variation Results for each time segment

06:30 - 06:45

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	Entry	1	1	0.20	0.00	0.00	0.51	0.85
			2	0.15	0.00	0.00	0.25	0.79
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
B - Markshall Farm Road	Entry	1	1	0.05	0.00	0.00	0.00	0.99
			2	0.10	0.00	0.00	0.99	0.99
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
C - A140 South	Entry	1	1	0.49	0.00	0.00	1.45	2.80
			2	0.18	0.00	0.00	0.45	0.84
			3	0.53	0.00	0.00	1.19	1.72
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
			2	0.00	0.00	0.00	0.00	0.00
			3	1	0.00	0.00	0.00	0.00
D - A47 Eastbound	Entry	1	1	0.18	0.00	0.00	0.43	1.86
			2	0.36	0.00	0.00	0.70	1.91
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
E - Unnamed Road	Entry	1	1	0.00	0.00	0.00	0.00	0.00
			2	0.00	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
F - A140 North	Entry	1	1	0.24	0.00	0.00	0.60	1.04
			2	0.88	0.00	0.00	2.04	3.21
			3	0.16	0.00	0.00	0.31	0.68
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
			2	0.00	0.00	0.00	0.00	0.00
			3	1	0.00	0.00	0.00	0.00

06:45 - 07:00

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	Entry	1	1	0.56	0.00	0.00	1.38	2.67
			2	0.22	0.00	0.00	0.56	0.85
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
B - Markshall Farm Road	Entry	1	1	0.17	0.00	0.00	0.40	0.75
			2	0.23	0.00	0.00	0.57	0.82
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
C - A140 South	Entry	1	1	1.36	0.00	0.32	3.58	4.42
			2	0.35	0.00	0.00	0.75	0.91
			3	1.16	0.00	0.12	2.67	4.33
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
			2	0.03	0.00	0.00	0.00	0.00
			3	1	0.00	0.00	0.00	0.00
D - A47 Eastbound	Entry	1	1	0.29	0.00	0.00	0.64	0.82
			2	0.60	0.00	0.00	1.68	3.53
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
E - Unnamed Road	Entry	1	1	0.00	0.00	0.00	0.00	0.00
			2	0.00	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
F - A140 North	Entry	1	1	0.46	0.00	0.00	1.04	1.73
			2	1.27	0.00	0.09	4.18	5.66
			3	0.30	0.00	0.00	0.71	0.98
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
			2	0.00	0.00	0.00	0.00	0.00
			3	1	0.00	0.00	0.00	0.00

07:00 - 07:15

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	Entry	1	1	0.43	0.00	0.00	1.19	1.73
			2	0.15	0.00	0.00	0.06	0.59
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
B - Markshall Farm Road	Entry	1	1	0.12	0.00	0.00	0.98	0.98
			2	0.09	0.00	0.00	0.00	0.38
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
C - A140 South	Entry	1	1	1.00	0.00	0.00	3.04	3.57
			2	0.40	0.00	0.00	0.85	1.89
			3	1.14	0.00	0.40	2.49	3.16
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
			2	0.00	0.00	0.00	0.00	0.00
			3	1	0.00	0.00	0.00	0.00
D - A47 Eastbound	Entry	1	1	0.23	0.00	0.00	0.56	0.78
			2	0.60	0.00	0.00	1.71	2.43
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
E - Unnamed Road	Entry	1	1	0.00	0.00	0.00	0.00	0.00
			2	0.00	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
F - A140 North	Entry	1	1	0.29	0.00	0.00	0.87	1.94
			2	0.70	0.00	0.00	1.96	2.51
			3	0.38	0.00	0.00	0.80	1.47
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
			2	0.00	0.00	0.00	0.00	0.00
			3	1	0.00	0.00	0.00	0.00

07:15 - 07:30

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	Entry	1	1	0.60	0.00	0.00	1.25	2.03
			2	0.10	0.00	0.00	0.94	0.94
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
B - Markshall Farm Road	Entry	1	1	0.05	0.00	0.00	0.00	0.94
			2	0.17	0.00	0.00	0.38	0.85
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

C - A140 South	Entry	1	1	0.44	0.00	0.00	0.99	1.53
			2	0.25	0.00	0.00	0.63	0.87
			3	0.77	0.00	0.00	1.95	2.61
	2	1	0.00	0.00	0.00	0.00	0.00	
		2	0.05	0.00	0.00	0.00	0.00	
		3	1	0.00	0.00	0.00	0.00	
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
D - A47 Eastbound	Entry	1	1	0.36	0.00	0.00	0.79	1.47
			2	0.30	0.00	0.00	0.67	1.85
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
E - Unnamed Road	Entry	1	1	0.00	0.00	0.00	0.00	0.00
			2	0.00	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
F - A140 North	Entry	1	1	0.24	0.00	0.00	0.64	1.33
			2	1.14	0.00	0.09	3.00	4.36
			3	0.24	0.00	0.00	0.53	1.28
	2	1	0.02	0.00	0.00	0.00	0.00	
		2	0.03	0.00	0.00	0.00	0.00	
		3	1	0.00	0.00	0.00	0.00	
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

Existing Layout - 2025 - Forecast Background flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A6 - Existing Layout [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	C - A140 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	F - A140 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D4 - 2025 - Forecast Background flows, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
6	A47 / A140 / Markshall Farm Road	Large Roundabout		A, B, C, D, E, F	28.25	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A - A47 Westbound	1466	89.30
B - Markshall Farm Road	1892	20.15
C - A140 South	649	28.20
D - A47 Eastbound	965	93.30
E - Unnamed Road	1711	29.90
F - A140 North	858	27.28

Slope / Intercept / Capacity

[same as above]

Lane Simulation: Arm options

[same as above]

Lanes

[same as above]

Entry Lane slope and intercept

[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)	Results for central hour only	Run automatically
D4	2025 - Forecast Background flows	PM	ONE HOUR	17:10	18:40	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 Westbound		ONE HOUR	✓	358	100.000
B - Markshall Farm Road		ONE HOUR	✓	95	100.000
C - A140 South		ONE HOUR	✓	867	100.000
D - A47 Eastbound		ONE HOUR	✓	566	100.000
E - Unnamed Road		ONE HOUR	✓	42	100.000
F - A140 North		ONE HOUR	✓	955	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	2	2	232	0	2	120
	B - Markshall Farm Road	4	1	8	50	0	32
	C - A140 South	287	21	0	234	2	323
	D - A47 Eastbound	3	43	281	0	2	237
	E - Unnamed Road	6	0	21	1	0	14
	F - A140 North	188	29	494	239	5	0

Proportions

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	0.01	0.01	0.65	0.00	0.01	0.34
	B - Markshall Farm Road	0.04	0.01	0.08	0.53	0.00	0.34
	C - A140 South	0.33	0.02	0.00	0.27	0.00	0.37
	D - A47 Eastbound	0.01	0.08	0.50	0.00	0.00	0.42
	E - Unnamed Road	0.14	0.00	0.50	0.02	0.00	0.33
	F - A140 North	0.20	0.03	0.52	0.25	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	0	0	2	0	0	1
	B - Markshall Farm Road	0	0	0	0	0	0
	C - A140 South	3	0	0	1	0	3
	D - A47 Eastbound	0	0	2	0	0	1
	E - Unnamed Road	0	0	0	100	0	23
	F - A140 North	1	0	1	1	80	0

Average PCU Per Veh

		To					
		A - A47 Westbound	B - Markshall Farm Road	C - A140 South	D - A47 Eastbound	E - Unnamed Road	F - A140 North
From	A - A47 Westbound	1.000	1.000	1.023	1.000	1.000	1.009
	B - Markshall Farm Road	1.000	1.000	1.000	1.000	1.000	1.000
	C - A140 South	1.026	1.000	1.000	1.005	1.000	1.027
	D - A47 Eastbound	1.000	1.000	1.020	1.000	1.000	1.014
	E - Unnamed Road	1.000	1.000	1.000	2.000	1.000	1.230
	F - A140 North	1.011	1.000	1.007	1.005	1.800	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
17:10-17:25	A - A47 Westbound	270	274
	B - Markshall Farm Road	72	72
	C - A140 South	653	666
	D - A47 Eastbound	426	433
	E - Unnamed Road	32	35
	F - A140 North	719	727
17:25-17:40	A - A47 Westbound	322	328
	B - Markshall Farm Road	85	85
	C - A140 South	779	795
	D - A47 Eastbound	509	517
	E - Unnamed Road	38	42
	F - A140 North	859	868
17:40-17:55	A - A47 Westbound	394	401
	B - Markshall Farm Road	105	105
	C - A140 South	955	974
	D - A47 Eastbound	623	633
	E - Unnamed Road	46	51
	F - A140 North	1051	1063
17:55-18:10	A - A47 Westbound	394	401
	B - Markshall Farm Road	105	105
	C - A140 South	955	974
	D - A47 Eastbound	623	633
	E - Unnamed Road	46	51
	F - A140 North	1051	1063
18:10-18:25	A - A47 Westbound	322	328
	B - Markshall Farm Road	85	85
	C - A140 South	779	795
	D - A47 Eastbound	509	517
	E - Unnamed Road	38	42
	F - A140 North	859	868
18:25-18:40	A - A47 Westbound	270	274
	B - Markshall Farm Road	72	72
	C - A140 South	653	666
	D - A47 Eastbound	426	433
	E - Unnamed Road	32	35
	F - A140 North	719	727

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 Westbound	6.92	0.8	2.6	A	357	357
B - Markshall Farm Road	9.96	0.3	0.9	A	95	95
C - A140 South	8.40	2.4	6.9	A	864	864
D - A47 Eastbound	7.31	1.5	4.4	A	568	568
E - Unnamed Road	6.66	0.1	0.9	A	43	43
F - A140 North	69.48	22.4	73.8	F	963	963

Main Results for each time segment

17:25 - 17:40

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	326	81	1009	327	328	437	0.3	0.4	5.437	A
B - Markshall Farm Road	89	22	1251	89	85	85	0.2	0.2	8.647	A
C - A140 South	776	194	404	776	791	935	1.2	1.4	6.756	A
D - A47 Eastbound	505	126	711	504	508	470	0.6	0.9	5.567	A
E - Unnamed Road	38	10	1205	38	42	9	0.0	0.1	5.564	A
F - A140 North	859	215	592	854	853	651	2.1	3.9	14.143	B

17:40 - 17:55

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	386	96	1236	388	394	534	0.4	0.7	6.923	A
B - Markshall Farm Road	99	25	1517	99	99	107	0.2	0.3	9.649	A
C - A140 South	959	240	487	956	968	1129	1.4	2.2	8.052	A
D - A47 Eastbound	635	159	883	632	633	561	0.9	1.5	7.010	A
E - Unnamed Road	49	12	1502	49	52	12	0.1	0.1	6.527	A
F - A140 North	1071	268	746	1024	1014	805	3.9	16.4	41.027	E

17:55 - 18:10

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
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					(PCU/hr)					
A - A47 Westbound	392	98	1237	391	398	532	0.7	0.8	6.874	A
B - Markshall Farm Road	106	27	1523	107	106	104	0.3	0.2	9.960	A
C - A140 South	943	236	503	940	974	1128	2.2	2.4	8.404	A
D - A47 Eastbound	629	157	867	630	628	576	1.5	1.1	7.314	A
E - Unnamed Road	46	12	1485	47	47	12	0.1	0.1	6.658	A
F - A140 North	1061	265	741	1028	1037	791	16.4	22.4	69.482	F

18:10 - 18:25

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	328	82	1032	328	333	453	0.8	0.6	6.247	A
B - Markshall Farm Road	85	21	1277	84	85	83	0.2	0.3	8.950	A
C - A140 South	778	194	418	781	803	943	2.4	1.3	6.981	A
D - A47 Eastbound	504	126	717	502	518	482	1.1	0.9	5.835	A
E - Unnamed Road	40	10	1210	40	44	9	0.1	0.1	6.100	A
F - A140 North	859	215	602	884	934	648	22.4	5.7	38.592	E

Queue Variation Results for each time segment

17:25 - 17:40

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	0.40	0.00	0.00	0.90	1.44
B - Markshall Farm Road	0.25	0.00	0.00	0.62	0.86
C - A140 South	1.36	0.00	0.52	2.82	3.65
D - A47 Eastbound	0.93	0.00	0.13	1.94	2.58
E - Unnamed Road	0.07	0.00	0.00	0.00	0.89
F - A140 North	3.91	0.00	2.47	7.83	10.67

17:40 - 17:55

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	0.65	0.00	0.00	1.57	1.93
B - Markshall Farm Road	0.31	0.00	0.00	0.72	0.94
C - A140 South	2.23	0.00	1.00	4.58	6.24
D - A47 Eastbound	1.46	0.00	0.63	3.16	4.36
E - Unnamed Road	0.14	0.00	0.00	0.25	0.76
F - A140 North	16.37	0.76	9.73	37.15	47.11

17:55 - 18:10

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	0.85	0.00	0.11	1.91	2.63
B - Markshall Farm Road	0.23	0.00	0.00	0.57	0.85
C - A140 South	2.45	0.00	1.41	4.72	6.93
D - A47 Eastbound	1.16	0.00	0.25	2.57	3.66
E - Unnamed Road	0.05	0.00	0.00	0.00	0.91
F - A140 North	22.44	1.20	11.97	51.74	73.79

18:10 - 18:25

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	0.64	0.00	0.00	1.57	2.31
B - Markshall Farm Road	0.27	0.00	0.00	0.64	0.83
C - A140 South	1.29	0.00	0.51	2.59	3.17
D - A47 Eastbound	0.97	0.00	0.15	1.90	2.69
E - Unnamed Road	0.05	0.00	0.00	0.00	0.91
F - A140 North	5.73	0.00	3.01	11.19	16.98

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

17:25 - 17:40

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	Entry	1	1	B, C	218	823	0.264	220	217	0.2	0.3	5.722	A
			2	A, D, E, F	108	835	0.129	108	111	0.1	0.1	4.887	A
	Exit	1	1		437			437	445	0.0	0.0	0.000	A
B - Markshall Farm Road	Entry	1	1	C, D, E	33	452	0.073	33	31	0.0	0.1	8.172	A
			2	A, B, D, E, F	56	452	0.124	56	54	0.1	0.1	8.915	A
	Exit	1	1	(A, B, C, D, E, F)	89			89	86	0.0	0.0	0.004	A
			1	1		85			85	85	0.0	0.0	0.000
C - A140 South	Entry	1	1	D	212	788	0.269	212	210	0.3	0.4	6.187	A
			2	E, F	190	773	0.246	190	197	0.2	0.3	5.417	A
			3	A, B, C, F	374	771	0.485	374	385	0.7	0.7	7.743	A
	Exit	1	1	(D, E, F)	357			357	361	0.0	0.0	0.000	A
			2	(A, B, C, E, F)	419			419	431	0.0	0.0	0.012	A
			3	1	((A, B, C, D, E, F))	776			776	792	0.0	0.0	0.000
D - A47 Eastbound	Entry	1	1	E, F	215	914	0.236	214	210	0.2	0.4	5.016	A
			2	A, B, C, D	289	909	0.318	289	294	0.4	0.5	5.969	A
	Exit	1	1		470			470	467	0.0	0.0	0.000	A
E - Unnamed Road	Entry	1	1	A, F	15	569	0.026	15	18	0.0	0.0	5.870	A
			2	A, B, C, D, E	23	674	0.035	23	24	0.0	0.1	5.369	A
	Exit	1	1		9			9	13	0.0	0.0	0.000	A
F - A140 North	Entry	1	1	A	173	633	0.273	173	170	0.3	0.3	7.644	A
			2	B, C	470	637	0.738	466	463	1.4	2.7	17.843	C
			3	D, E, F	213	630	0.338	215	221	0.4	0.5	8.528	A
	Exit	1	1	(A, B, C)	422			421	417	0.0	0.2	0.866	A
			2	(C, D, E, F)	436			434	442	0.0	0.2	0.623	A
			3	1	((A, B, C, D, E, F))	859			858	860	0.0	0.1	0.011
Exit	1	1		651			651	664	0.0	0.0	0.000	A	

17:40 - 17:55

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
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Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	Entry	1	1	B, C	253	739	0.342	256	257	0.3	0.4	7.385	A
			2	A, D, E, F	133	746	0.177	132	137	0.1	0.2	6.066	A
	Exit	1	1		534			534	540	0.0	0.0	0.000	A
B - Markshall Farm Road	Entry	1	1	C, D, E	35	384	0.091	35	36	0.1	0.1	9.039	A
			2	A, B, D, E, F	64	384	0.166	64	63	0.1	0.2	9.989	A
	Exit	2	1	(A, B, C, D, E, F)	99			99	99	0.0	0.0	0.006	A
C - A140 South	Entry	1	1	D	253	764	0.331	251	255	0.4	0.6	7.029	A
			2	E, F	246	747	0.329	245	250	0.3	0.5	6.247	A
			3	A, B, C, F	460	749	0.614	460	464	0.7	1.1	9.482	A
	Entry	2	1	(D, E, F)	428			428	439	0.0	0.0	0.000	A
			2	(A, B, C, E, F)	530			530	533	0.0	0.0	0.102	A
	Exit	3	1	((A, B, C, D, E, F))	959			959	972	0.0	0.0	0.000	A
	D - A47 Eastbound	Entry	1	1	E, F	268	844	0.318	269	269	0.4	0.5	6.215
2				A, B, C, D	367	838	0.438	363	365	0.5	0.9	7.596	A
Exit		1	1		561			561	563	0.0	0.0	0.000	A
E - Unnamed Road	Entry	1	1	A, F	21	501	0.042	20	23	0.0	0.1	7.267	A
			2	A, B, C, D, E	28	580	0.049	29	29	0.1	0.1	6.013	A
F - A140 North	Entry	1	1	A	200	595	0.335	197	199	0.3	0.7	9.995	A
			2	B, C	567	597	0.949	563	550	2.7	5.8	32.831	D
			3	D, E, F	264	590	0.448	264	264	0.5	1.0	12.288	B
	Entry	2	1	(A, B, C)	507			503	496	0.2	1.8	9.143	A
			2	(C, D, E, F)	533			528	533	0.2	1.9	8.655	A
	Exit	3	1	((A, B, C, D, E, F))	1071			1040	1043	0.1	5.2	8.207	A
	Exit	1	1		805			805	817	0.0	0.0	0.000	A

17:55 - 18:10

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	Entry	1	1	B, C	257	733	0.350	257	262	0.4	0.6	7.320	A
			2	A, D, E, F	135	745	0.181	133	136	0.2	0.3	6.026	A
	Exit	1	1		532			532	543	0.0	0.0	0.000	A
B - Markshall Farm Road	Entry	1	1	C, D, E	40	382	0.104	40	40	0.1	0.1	9.536	A
			2	A, B, D, E, F	67	382	0.174	68	66	0.2	0.1	10.191	B
	Exit	2	1	(A, B, C, D, E, F)	106			107	105	0.0	0.0	0.015	A
C - A140 South	Entry	1	1	D	255	758	0.336	253	259	0.6	0.5	7.272	A
			2	E, F	242	741	0.327	241	253	0.5	0.5	6.391	A
			3	A, B, C, F	446	742	0.601	446	462	1.1	1.3	9.995	A
	Entry	2	1	(D, E, F)	436			436	448	0.0	0.0	0.002	A
			2	(A, B, C, E, F)	507			507	527	0.0	0.1	0.121	A
	Exit	3	1	((A, B, C, D, E, F))	943			943	975	0.4	0.0	0.001	A
	D - A47 Eastbound	Entry	1	1	E, F	270	846	0.319	269	264	0.5	0.5	6.179
2				A, B, C, D	360	845	0.426	361	364	0.9	0.7	8.143	A
Exit		1	1		576			576	578	0.0	0.0	0.000	A
E - Unnamed Road	Entry	1	1	A, F	18	501	0.035	18	20	0.1	0.0	6.923	A
			2	A, B, C, D, E	28	591	0.048	29	28	0.1	0.0	6.493	A
F - A140 North	Entry	1	1	A	200	597	0.336	200	204	0.7	0.7	10.636	B
			2	B, C	560	599	0.933	558	561	5.8	6.1	37.850	E
			3	D, E, F	269	588	0.457	270	271	1.0	1.0	14.695	B
	Entry	2	1	(A, B, C)	507			503	506	1.8	2.3	15.009	C
			2	(C, D, E, F)	526			526	532	1.9	2.2	14.803	B
	Exit	3	1	((A, B, C, D, E, F))	1061			1033	1042	5.2	10.1	27.880	D
	Exit	1	1		791			791	811	0.0	0.0	0.000	A

18:10 - 18:25

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A47 Westbound	Entry	1	1	B, C	216	808	0.267	216	220	0.6	0.5	6.811	A
			2	A, D, E, F	111	827	0.135	112	113	0.3	0.1	5.167	A
	Exit	1	1		453			453	467	0.0	0.0	0.000	A
B - Markshall Farm Road	Entry	1	1	C, D, E	29	445	0.065	29	30	0.1	0.1	8.801	A
			2	A, B, D, E, F	56	445	0.125	55	55	0.1	0.2	9.032	A
	Exit	2	1	(A, B, C, D, E, F)	85			85	85	0.0	0.0	0.000	A
C - A140 South	Entry	1	1	D	212	786	0.270	214	211	0.5	0.3	6.504	A
			2	E, F	186	772	0.240	185	197	0.5	0.3	5.670	A
			3	A, B, C, F	380	766	0.496	381	394	1.3	0.6	7.901	A
	Entry	2	1	(D, E, F)	351			351	359	0.0	0.0	0.000	A
			2	(A, B, C, E, F)	426			426	439	0.1	0.0	0.016	A
	Exit	3	1	((A, B, C, D, E, F))	778			778	798	0.0	0.0	0.000	A
	D - A47 Eastbound	Entry	1	1	E, F	213	908	0.234	214	221	0.5	0.3	5.452
2				A, B, C, D	291	905	0.322	289	298	0.7	0.6	6.120	A
Exit		1	1		482			482	489	0.0	0.0	0.000	A
E - Unnamed Road	Entry	1	1	A, F	16	589	0.026	16	19	0.0	0.0	6.984	A
			2	A, B, C, D, E	25	678	0.036	24	24	0.0	0.1	5.498	A
F - A140 North	Entry	1	1	A	176	634	0.277	178	183	0.7	0.3	9.453	A
			2	B, C	480	634	0.757	478	511	6.1	3.4	27.254	D
			3	D, E, F	228	627	0.363	228	240	1.0	0.6	10.578	B
	Entry	2	1	(A, B, C)	431			433	449	2.3	0.4	7.661	A
			2	(C, D, E, F)	448			451	471	2.2	0.5	7.491	A
	Exit	3	1	((A, B, C, D, E, F))	859			879	905	10.1	0.5	13.208	B
	Exit	1	1		648			648	675	0.0	0.0	0.000	A

Lanes: Queue Variation Results for each time segment

17:25 - 17:40

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	Entry	1	1	0.26	0.00	0.00	0.63	0.88
			2	0.15	0.00	0.00	0.13	0.81
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
B - Markshall Farm Road	Entry	1	1	0.10	0.00	0.00	1.00	1.00
			2	0.15	0.00	0.00	0.27	0.70
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
C - A140 South	Entry	1	1	0.35	0.00	0.00	0.80	1.18
			2	0.27	0.00	0.00	0.70	1.95
			3	0.75	0.00	0.00	1.76	2.75
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
			2	0.00	0.00	0.00	0.00	0.00
			3	1	0.00	0.00	0.00	0.00
D - A47 Eastbound	Entry	1	1	0.39	0.00	0.00	0.92	1.50
			2	0.55	0.00	0.00	1.33	1.90
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
E - Unnamed Road	Entry	1	1	0.02	0.00	0.00	0.00	0.00
			2	0.05	0.00	0.00	0.00	0.96
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
F - A140 North	Entry	1	1	0.32	0.00	0.00	0.76	1.02
			2	2.72	0.00	1.36	7.94	7.94
			3	0.46	0.00	0.00	1.02	1.99
	Exit	1	1	0.15	0.00	0.00	0.00	0.07
			2	0.20	0.00	0.00	0.00	1.37
			3	1	0.05	0.00	0.00	0.00
Exit	1	1	0.00	0.00	0.00	0.00	0.00	

17:40 - 17:55

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	Entry	1	1	0.41	0.00	0.00	1.09	1.65
			2	0.24	0.00	0.00	0.58	0.91
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
B - Markshall Farm Road	Entry	1	1	0.10	0.00	0.00	0.00	0.51
			2	0.20	0.00	0.00	0.51	0.80
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
C - A140 South	Entry	1	1	0.59	0.00	0.00	1.53	2.44
			2	0.50	0.00	0.00	1.19	2.25
			3	1.14	0.00	0.32	2.48	3.55
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
			2	0.00	0.00	0.00	0.00	0.00
			3	1	0.00	0.00	0.00	0.00
D - A47 Eastbound	Entry	1	1	0.52	0.00	0.00	1.27	2.20
			2	0.94	0.00	0.00	2.24	3.17
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
E - Unnamed Road	Entry	1	1	0.07	0.00	0.00	0.00	0.30
			2	0.07	0.00	0.00	0.00	0.18
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
F - A140 North	Entry	1	1	0.66	0.00	0.00	1.51	2.51
			2	5.82	0.00	7.95	7.95	7.95
			3	1.00	0.00	0.00	2.99	4.00
	Exit	1	1	1.76	0.00	0.00	5.96	5.96
			2	1.90	0.00	0.00	5.92	5.92
			3	1	5.24	0.00	0.00	18.70
Exit	1	1	0.00	0.00	0.00	0.00	0.00	

17:55 - 18:10

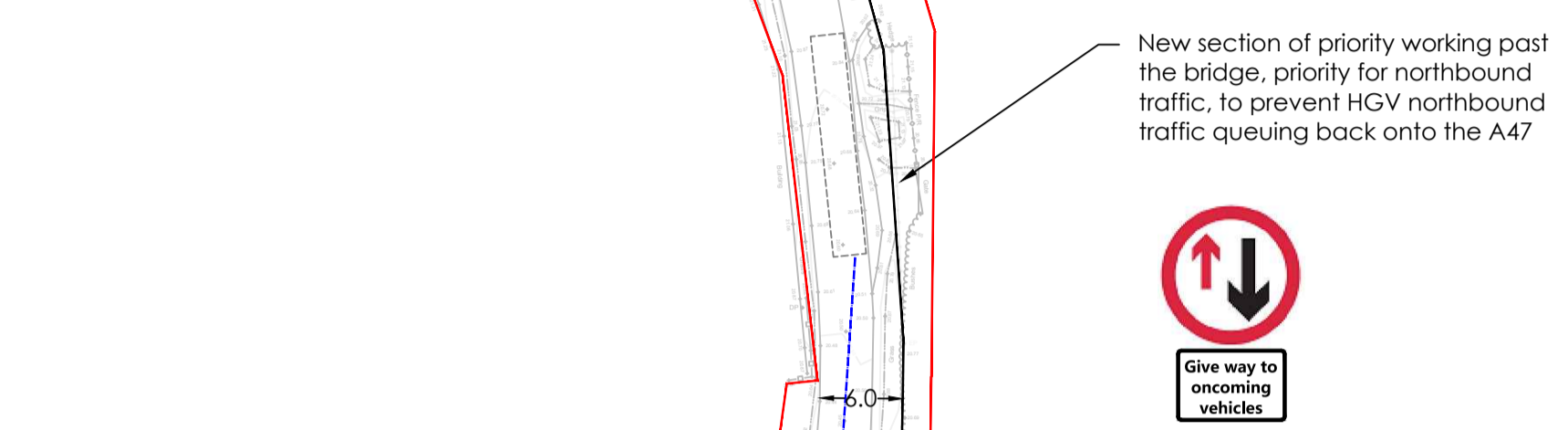
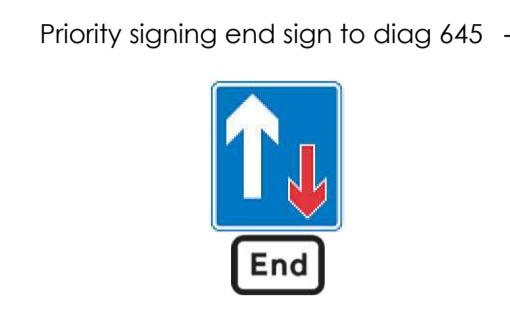
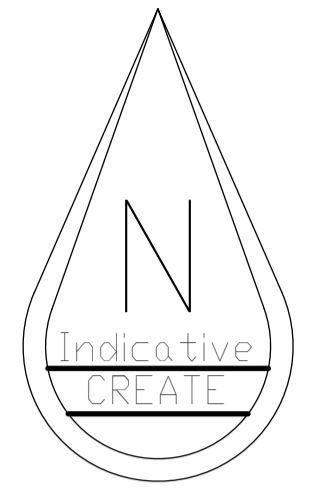
Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	Entry	1	1	0.56	0.00	0.00	1.30	1.99
			2	0.28	0.00	0.00	0.66	0.89
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
B - Markshall Farm Road	Entry	1	1	0.09	0.00	0.00	0.00	1.00
			2	0.14	0.00	0.00	0.16	0.65
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
C - A140 South	Entry	1	1	0.55	0.00	0.00	1.36	2.37
			2	0.51	0.00	0.00	1.27	1.87
			3	1.33	0.00	0.41	2.81	3.97
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
			2	0.06	0.00	0.00	0.00	0.00
			3	1	0.00	0.00	0.00	0.00
D - A47 Eastbound	Entry	1	1	0.49	0.00	0.00	1.13	1.88
			2	0.67	0.00	0.00	1.78	2.81
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
E - Unnamed Road	Entry	1	1	0.02	0.00	0.00	0.00	0.00
			2	0.03	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
F - A140 North	Entry	1	1	0.72	0.00	0.00	2.28	2.90
			2	6.11	0.00	7.96	7.96	7.96
			3	0.99	0.00	0.00	2.33	4.28
	Exit	1	1	2.35	0.00	0.65	5.60	5.82
			2	2.18	0.00	0.00	5.91	5.91
			3	1	10.12	0.00	0.00	31.85
Exit	1	1	0.00	0.00	0.00	0.00	0.00	

18:10 - 18:25

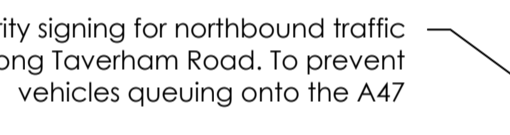
Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
A - A47 Westbound	Entry	1	1	0.49	0.00	0.00	1.29	1.97
			2	0.15	0.00	0.00	0.27	0.69
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
B - Markshall Farm Road	Entry	1	1	0.09	0.00	0.00	0.00	1.00
			2	0.18	0.00	0.00	1.00	1.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

C - A140 South	Entry	1	1	0.29	0.00	0.00	0.77	1.26
			2	0.31	0.00	0.00	0.74	1.00
			3	0.68	0.00	0.00	1.63	1.97
	2	1	0.00	0.00	0.00	0.00	0.00	
		2	0.00	0.00	0.00	0.00	0.00	
		3	1	0.00	0.00	0.00	0.00	
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
D - A47 Eastbound	Entry	1	1	0.31	0.00	0.00	0.70	0.95
			2	0.67	0.00	0.00	1.42	1.90
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
E - Unnamed Road	Entry	1	1	0.00	0.00	0.00	0.00	0.00
			2	0.06	0.00	0.00	0.00	0.96
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
F - A140 North	Entry	1	1	0.35	0.00	0.00	0.82	1.35
			2	3.38	0.00	2.25	7.95	7.95
			3	0.59	0.00	0.00	1.46	2.00
	2	1	0.44	0.00	0.00	1.09	3.36	
		2	0.45	0.00	0.00	1.09	3.98	
	3	1	0.53	0.00	0.00	0.00	0.00	
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

Appendix 5 Junction 2 Mitigation Measures



90m Forward Visibility Splay



1 to 6 taper

2.0m carriageway widening to allow two HGVs passing each other



R 15m

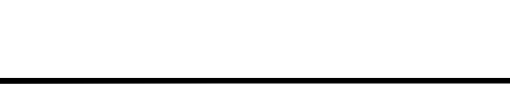
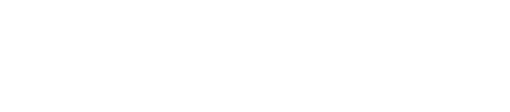
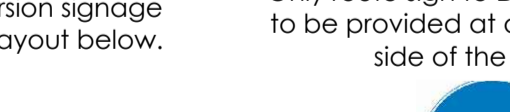
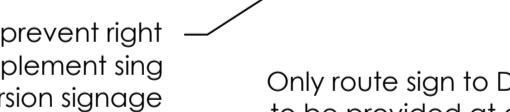
R 15m



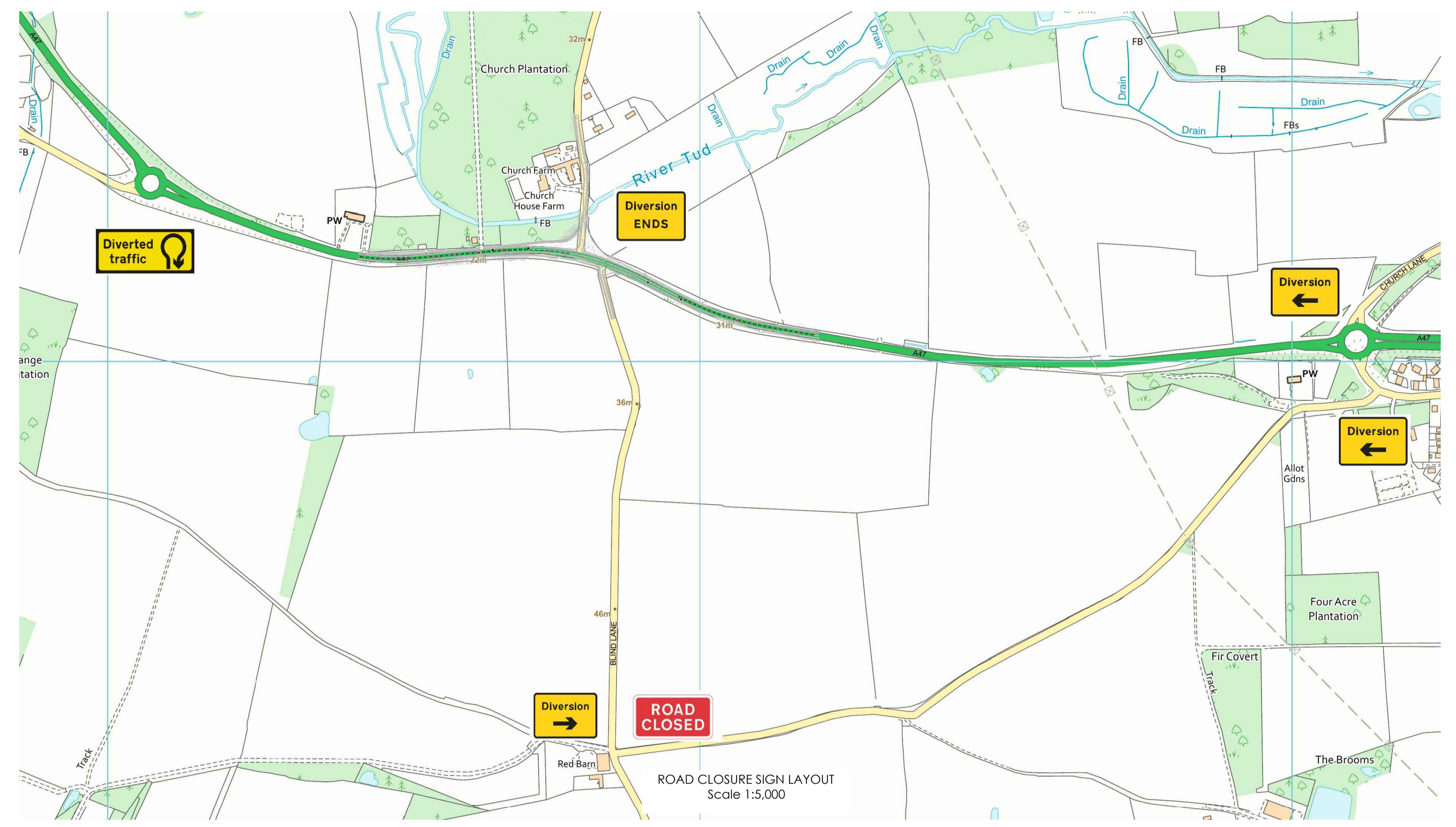
Only route sign to Diag. 606 to be provided at opposite side of the junction



Continuous white lining to prevent right turning movements to complement sign to Diag. 612 at junction. Diversion signage as shown in general layout below.



TAVERHAM ROAD/A47 JUNCTION INTERVENTION SCHEME Scale 1:500



KEY:
 — HIGHWAY BOUNDARY DATA OBTAINED FROM NCC

- GENERAL NOTES:
1. THE DRAWING IS BASED ON TOPOGRAPHICAL SURVEY CARRIED OUT BY PARISH LAND SURVEYS ON 22ND DECEMBER 2018 IN CONJUNCTION WITH DIGITAL OS MAPPING.
 2. PROPOSED SOUTHBOUND LAY-BY TO BE FORMED BY SHALLOW-DIG CELLULAR SYSTEM (E.G. GRASSCRETE, OR SIMILAR) PROVIDING LOCALISED 6.0m OVERALL ROAD WIDTH, WITH PERMEABLE DRAINAGE TO SUB-STRATA.
 3. PROPOSED LAYBY AND WIDENING AT JUNCTION TO BE CONSTRUCTED TO NCC STANDARDS.
 4. ANY EXCAVATION CLOSE TO TREES/HEDGES TO BE CARRIED OUT IN ACCORDANCE WITH NJUG GUIDELINES.
 5. SERVICES ARE TO BE PROTECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT STATUTORY AUTHORITIES.
 6. TO BE READ IN CONJUNCTION WITH ALL OTHER LAYOUT AND DETAIL DRAWINGS.
 7. ACCESS FOR PEDESTRIANS AND CYCLISTS IS TO BE MAINTAINED AT ALL TIMES. ACCESSES TO PROPERTIES ARE TO BE MAINTAINED AND WORKS PROGRAMMED IN CONSULTATION WITH PROPERTY OWNERS.
 8. **THIS IS NOT** A SIGNAGE PLAN AND ANY SIGNAGE SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY. DETAILED SIGN PLAN TO BE AGREED WITH NCC AND HE.
 9. ANY ROAD MARKINGS AND ROAD SIGNS ARE TO BE IN ACCORDANCE WITH THE SI DOCUMENT 'TRAFFIC SIGNS REGULATIONS AND GENERAL DIRECTIONS, 2016'.
 10. ALL PROPOSED SIGN ASSEMBLY TO BE PASSIVELY SAFE.
 11. ALL MEASUREMENTS IN METRES UNLESS OTHERWISE STATED.

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REV	DATE	AMENDMENT DETAILS	DRAWN	APPROVED
D	07.03.19	REVISED CENTRAL ISLAND TO NCC COMMENTS	EC	PZ
C	28.02.19	REVISED ISLAND TO NCC COMMENTS	EC	PZ
B	20.02.19	HIGHWAY BOUNDARY DATA ADDED	S.G	E.C
A	29.01.19	RADIUS AMENDED, PHYSICAL BARRIER REMOVED AND NOTES ADDED	EC	PZ

PROJECT HORNSEA 3 OFF-SHORE WIND FARM	DATE 04.01.19	DRAWING STATUS INFORMATION	
DRAWING TITLE TAVERHAM ROAD TEMPORARY SCHEME	SCALE(S) AS SHOWN	DESIGNED EC	
CLIENT ORSTED	CHECKED PZ	APPROVED PZ	
JOB No 1554		DRAWING No 03/300	REVISION D

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