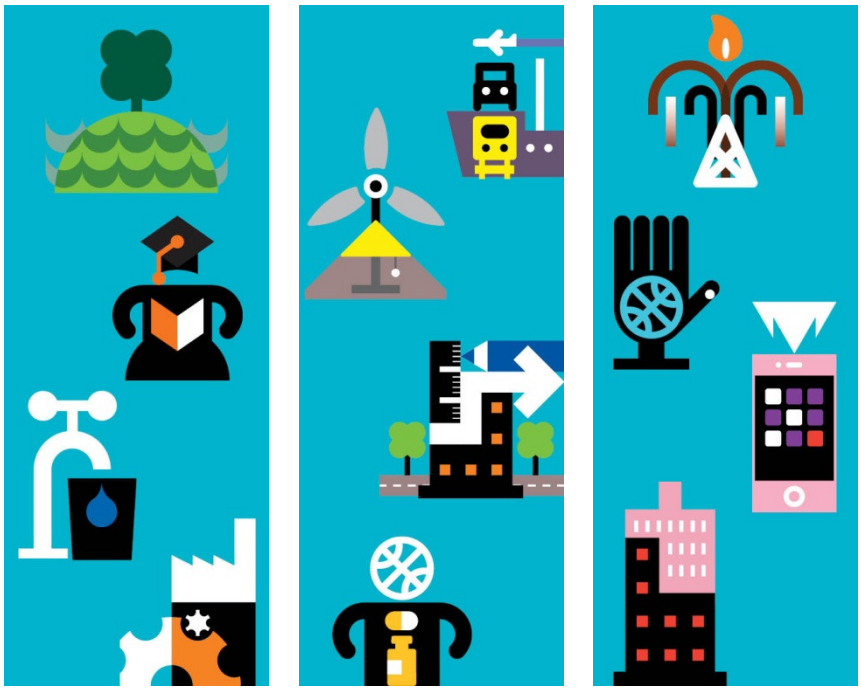

Lenham - Transport Mitigation Study

Technical Note

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May 2016

Maidstone Borough Council

Mott MacDonald

Lenham - Transport Mitigation Study

Technical Note

May 2016

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1 Introduction

1.1 Background

Mott MacDonald was commissioned by Maidstone Borough Council (MBC) to consider the capacity of the four junctions identified in the existing capacity assessment modelling undertaken by Mott MacDonald in August 2015 in the Lenham area, develop possible improvement measures and take the most viable / feasible solution forward.

The assessment modelling undertaken by Mott MacDonald in August 2015 summarised the capacity assessment results in Lenham with all sites included in the modelling of Design 2031, i.e. predicted future background traffic plus all development. The modelling for Design 2031 illustrated that four of the six junctions that were modelled would exceed design capacity or experience significant delay (in seconds) during the morning and evening peaks. The four junctions identified in Lenham are as follows:

- Pilgrims Way / Ashford Road (A20) / Ham Lane / Ashford Road (A20) (Junction 1)
- Faversham Road / Old Ashford Road / High Street / Maidstone Road (Junction 4)
- Ashford Road (A20) / Old Ashford Road (Junction 5)
- Faversham Road / Ashford Road (A20) (Junction 6)

Upon closer review of the results in our Addendum of August 2015, the fourth junction listed above is performing within capacity with limited queuing, although delays to vehicles exiting the give way (side) roads (Faversham Road north and south) are quite significant due to high main road flows on the A20 Ashford Road. It is however considered that overall the junction performance is acceptable and it is therefore proposed that this junction is not revisited. It should be noted that a wider corridor study has not been requested, with consideration for the three junctions listed above only.

1.2 Local Plan Broad Locations

Maidstone Borough Council are seeking to understand the impact of planned housing growth on the local road networks in relation to the identified Broad Locations in its Local Plan, and potential mitigation to manage future congestion and junction capacity issues. A total of up to 1500 dwellings have been earmarked under Policy H1(3) of the Regulation 18 Consultation version of the Maidstone Borough Local Plan 2014 as a Broad Location in Lenham, and are to be tested under an assortment of location options provided by MBC in Appendix A of their brief, displayed in **Table 1.1** below.

The existing capacity assessment modelling undertaken by Mott MacDonald in August 2015 included the provision of Lenham development as Broad Location, assuming a total of 1500 units equally split between the east and west of Lenham, thereby representing Option 4 in the table below. Option 1 and Option 2 assume a total of 1500 units unequally split across Lenham, with approximately 30% located in the east and 70% located in the west for Option 1 and 70% located in the east and 30% located in the west for Option 2. Both these options have been tested and reviewed within this technical note. During further discussions with MBC, it was agreed not to test Option 3.

Table 1.1: Appendix A: Scenarios for Lenham Distribution

Option	Distribution	Source
Option 1	1100 dwellings to the west of Lenham; 400 dwellings to the east	Broad Location Policy Local Plan
Option 2	1100 dwellings to the east of Lenham; 400 dwellings to the west	Broad Location Policy Local Plan
Option 3	Dispersed pattern with 500 units to the east and west with a further 500 units south of and adjacent to the railway line	To consider an alternate approach to that in the plan policy
Option 4	Dispersal as set out in the emerging Lenham Neighbourhood Plan but with the numbers totalling 1500 as per the local plan	Emerging Lenham Neighbourhood Plan

Source: Appendix A of Maidstone Borough Council' brief

1.3 Tasks

The tasks as set out below were taken from the MBC brief and were detailed further in our proposal:

1. Using all of the available information, consider the projected traffic increases and capacity issues at the identified junctions identified in Lenham at 2031 to use as a benchmark.
    a. Collation of all the relevant information to establish base traffic at the specified junctions for the four scenarios provided in Appendix A of the brief. This includes the consideration of the VISUM modelling carried out assumed a total of 1500 units equally split between the east and west of Lenham, thereby representing Option 4 as per Appendix A.
    b. Calculate the growth applicable to the base traffic based on TEMPro for 2031. Discuss the acceptability of adjusting TEMPRO growth. Note, TEMPRO was not adjusted for the previous work carried out.
    c. Add the relevant development sites as per Appendix A of the brief creating 4 different flow scenarios and if agreed, adjust TEMPRO.
    d. Produce flow diagrams for each scenario.

2. Run scenarios varying the quantum of housing in each geographical location as set out in the table at Appendix A and assess whether the alternate options outturn more or less favourably than the other scenarios, concluding the most beneficial option in terms of cost-benefit, and ranking in order the other scenario options.
    a. Rerun the junction assessments for the four junctions with the models previously established using the flows from the above four scenarios.
    b. Compare the results and evaluate which of the scenarios has the least impact on the four junctions.
    c. Rank the development scenarios based on their impact; NOTE: at this stage, the impact is measured as how many junctions would be over capacity and the degree of overcapacity.

3. Use the information provided about road infrastructure secured through developer contributions and any that has already been constructed or is under construction to make suggestions for improvement measures to mitigate future congestion. This should include a wide range of potential solutions and indicative viability / cost implications, illustrated by way of a traffic light coding approach.
    a. Review information regarding road infrastructure secured, improvements that have been implemented, and are being implemented or designed.
    b. Based on the outcomes in point 2 above, we will consider possible improvements to the four junctions. For costing purposes, we have allowed for a maximum of 3 improvement options to be sketched up for each junction. Presently all four junctions are priority junctions. The improvements could take the form of improved priority junctions, roundabouts or signalised junctions.
    c. We will carry out assessments for the junction options to understand whether they provide the additional capacity required for the junction to perform within capacity in 2031 with the relevant development traffic.
    d. Based on our sketches, we will consider the viability and cost implications of the options and rank them based on traffic light coding approach as requested in the brief.

4. Provide basic outline design solution drawings for the most viable / feasible solution at the junctions considering the results of point 2, above, ensuring all of the solution can be delivered within the extent of the existing highway / KCC Highways controlled land.
    a. For the overall best emerging option from point 3 above, we will produce a basic outline design drawing for each of the junctions.
    b. b. The design will take into consideration the extent of highway land, visibility / forward visibility, and pedestrian routes.

5. Provide a written report identifying the methodology and approach undertaken, summarising the findings, and drawing the conclusions. The written report should be accompanied by relevant mapping and/or illustrations as deemed appropriate.
    a. We will produce a technical note detailing the above steps and outcomes. The report will contain the sketches and outline design drawings as well as any other supporting documents.

1.4 Report Structure

This Technical Note is structured as follows:

- **Chapter 2** contains the traffic flows.
- In **Chapter 3**, the existing layouts are reviewed and capacity issues are identified.
- **Chapter 4** contains the improvement options considered and assessment results.
- The results are discussed in **Chapter 5**.
- **Chapter 6** summarises the work that has been undertaken.

2 Traffic Flows

2.1 Background

Both the existing baseline traffic counts (undertaken in May 2015) and the development traffic flows are consistent with the traffic flows used in the August 2015 Technical Note, with no additional committed developments to consider for the local area.

2.2 Development Traffic

A review of all committed developments included are presented below:

Lenham Allocated Sites;

- H1 (29) Tanyard Farm, Old Ashford Road (155 units)
- H1 (30) Glebe Gardens (9 units)
- H1 (31) Ham Lane (82 units)

Other sites under construction or submitted;

- The Paddock Grove House, Old Ashford Road (23 units)
- Land At Northland and Groom Way, Old Ashford Road (12 units)
- Lenham United Reformed Church, Maidstone Road (24 units)
- The Old Goods Yard, Headcorn Road (66 units)

Lenham as a Broad Location;

- Broad Location for the development of up to 1500 dwellings in the period after 2026.

2.3 TEMPro

TEMPro (version 6.2 with planning dataset 62 and NTM dataset AF09) has been interrogated with regards to forecast growth in traffic. The growth rates were adjusted using the National Transport Model (NTM) for the selected geographical area Maidstone (rural). Growth rates for a rural principal road were applied to junctions 1 and 5 (both enclosing the A20 trunk road) and a rural minor road for junction 4.

Growth rates for between 2015 and 2031 have been generated. **Table 2.1** and **Table 2.2** show the growth rates.

Table 2.1: Rural Principal TEMPro Growth Rates for Maidstone (rural) – 2015 - 2031

Time period	Factor
AM peak	1.215732939
PM peak	1.229712149

Table 2.2: Rural Minor TEMPro Growth Rates for Maidstone (rural) – 2015 - 2031

Time period	Factor
AM peak	1.213385000
PM peak	1.227337212

The various developments as set out in **Section 2.2** total approximately 1871 units. It is considered that these units are double counted due to their inclusion in the TEMPro growth. TEMPro has therefore been adjusted to ensure the developments are not double counted as shown in **Table 2.3** and **Table 2.4**. Table 2.3

Table 2.3: Adjusted Rural Principal TEMPro Growth Rates for Maidstone (rural) – 2015 - 2031

Time period	Factor
AM peak	1.161477562
PM peak	1.172649472

Table 2.4: Adjusted Rural Minor TEMPro Growth Rates for Maidstone (rural) – 2015 - 2031

Time period	Factor
AM peak	1.159234406
PM peak	1.170384740

2.4 Flow Diagrams

Based on the above factors in **Table 2.3** and **Table 2.4**, the revised 2031 base flows were calculated. The development flows were added to the 2031 base flows to create the 'with development flows' for both Option 1 and Option 2. The AM and PM peaks are illustrated in **Figure 2.1** to **Figure 2.18** for the three junctions considered in this report. The junction numbers from the previous report were used as follows:

- Junction 1 (J1): Pilgrims Way / Ashford Road (A20) / Ham Lane / Ashford Road (A20)
- Junction 4 (J4): Faversham Road / Old Ashford Road / High Street / Maidstone Road
- Junction 5 (J5): Ashford Road (A20) / Old Ashford Road

Figure 2.1: J1 Base 2031 AM

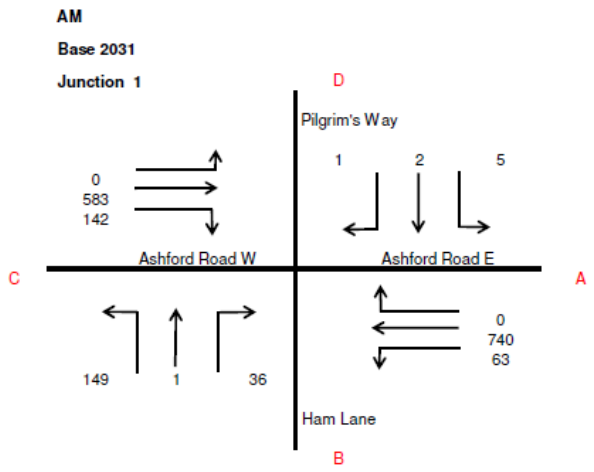

Figure 2.2: J1 Base 2031 PM

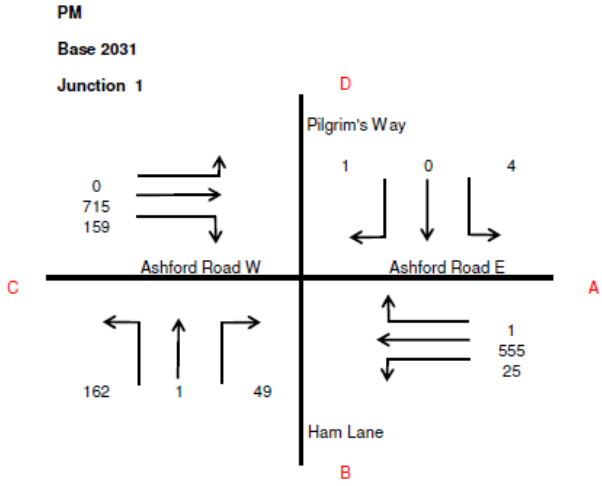

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Figure 2.3: J4 Base 2031 AM

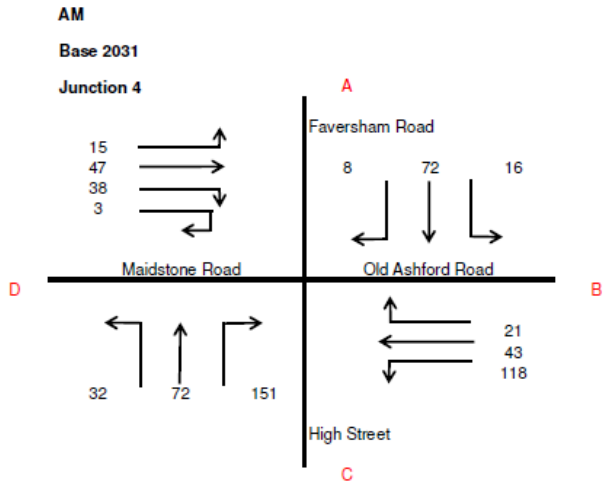


Figure 2.4: J4 Base 2031 PM

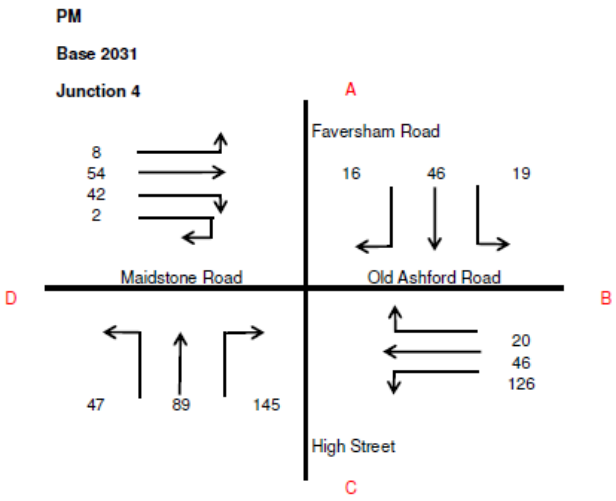


Figure 2.5: J5 Base 2031 AM

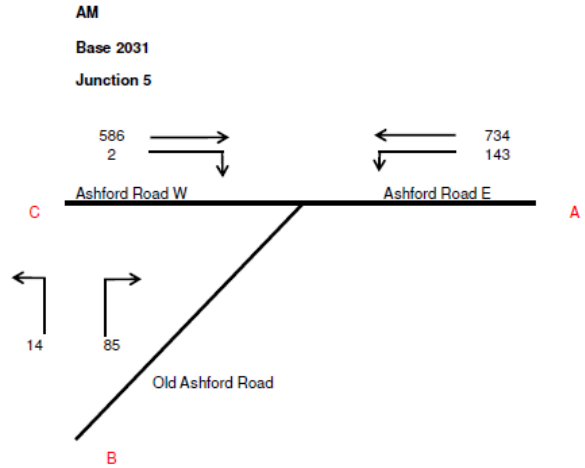


Figure 2.6: J5 Base 2031 PM

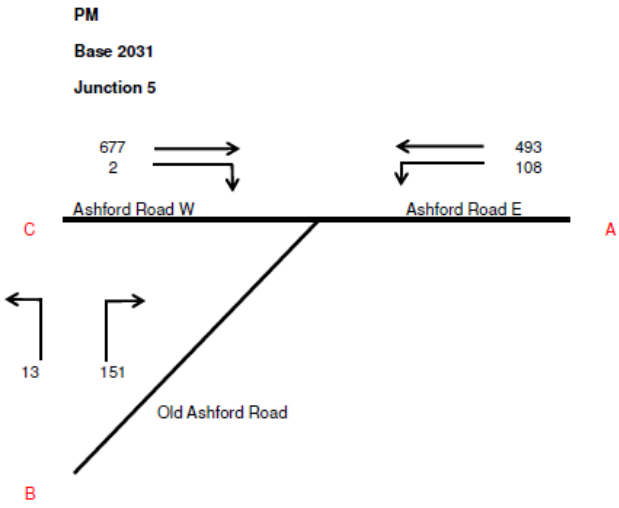


Figure 2.7: J1 Base 2031 + Development Option 1 AM

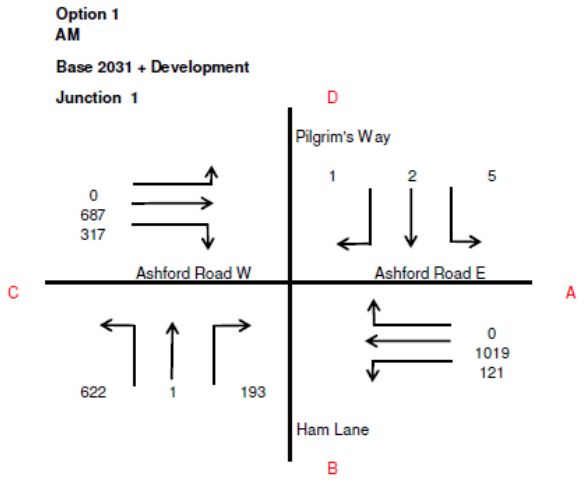


Figure 2.8: J1 Base 2031 + Development Option 1 PM

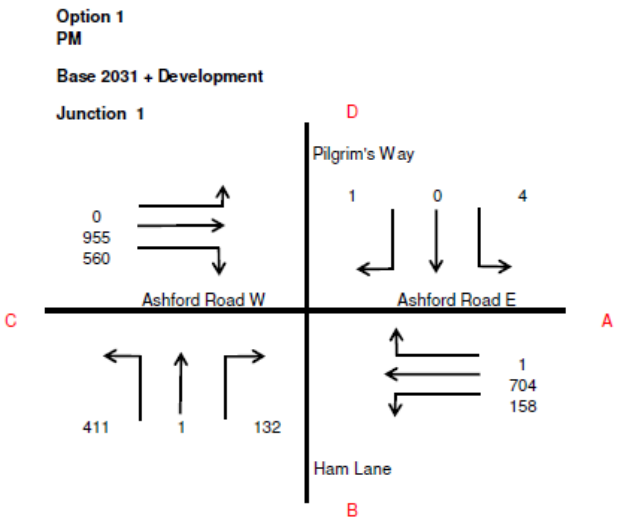


Figure 2.9: J4 Base 2031 + Development Option 1 AM

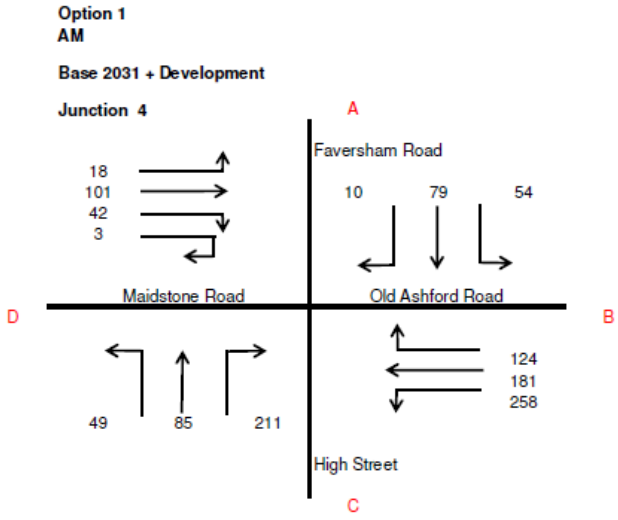


Figure 2.10: J4 Base 2031 + Development Option 1 PM

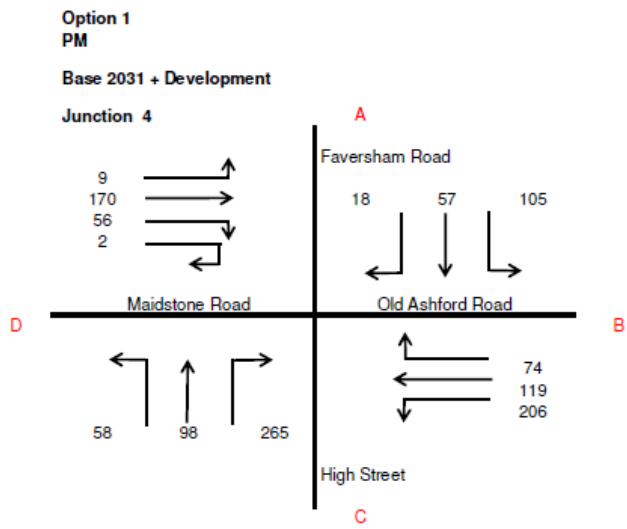


Figure 2.11: J5 Base 2031 + Development Option 1 AM

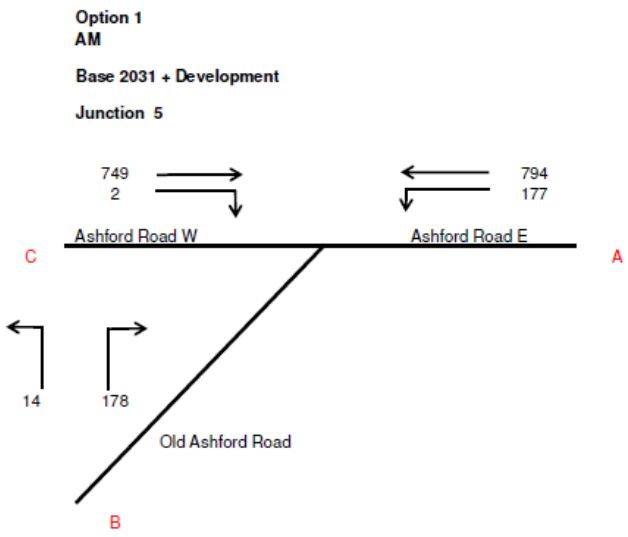


Figure 2.12: J5 Base 2031 + Development Option 1 PM

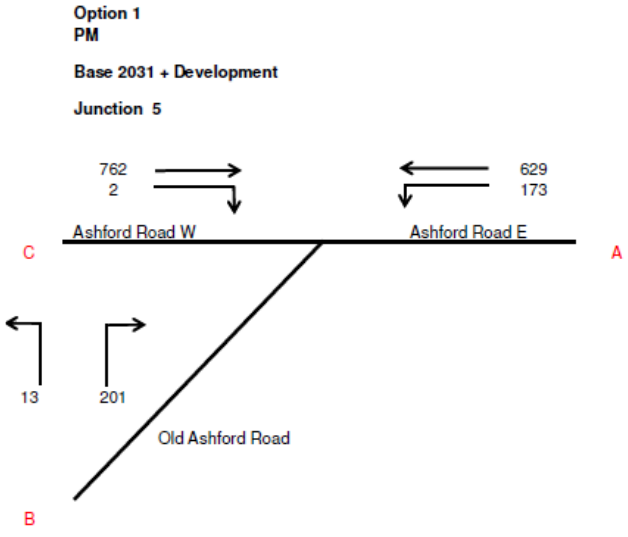


Figure 2.13: J1 Base 2031 + Development Option 2 AM

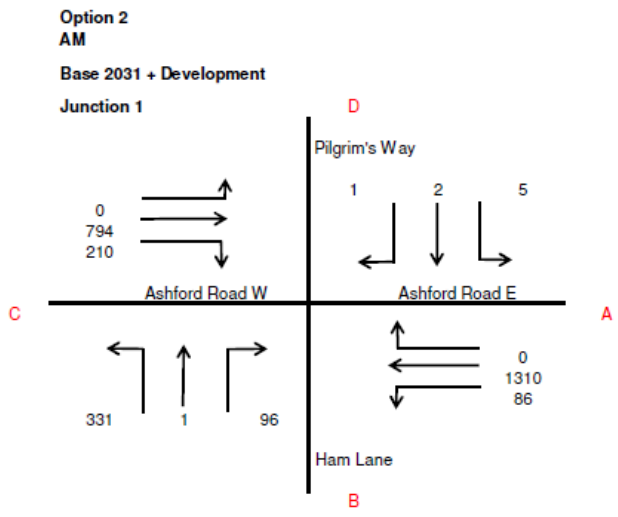


Figure 2.14: J1 Base 2031 + Development Option 2 PM

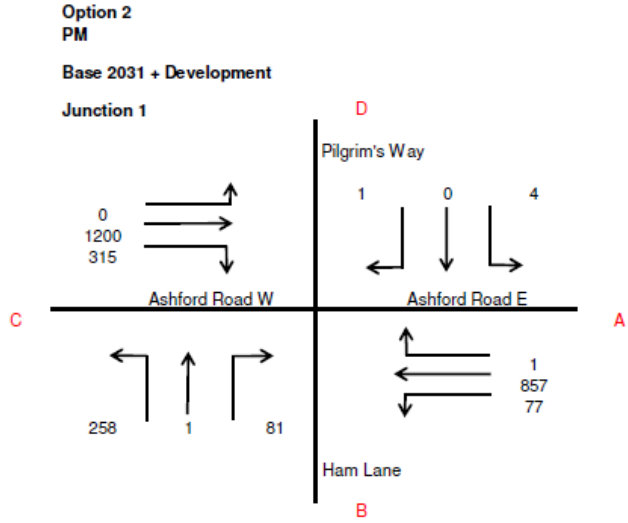


Figure 2.15: J4 Base 2031 + Development Option 2 AM

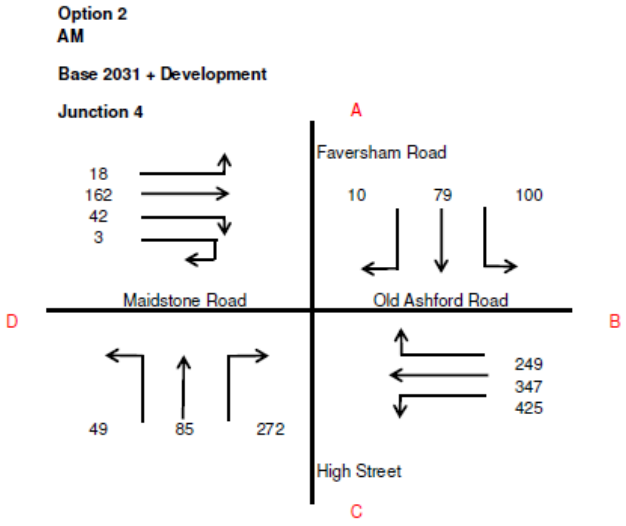


Figure 2.16: J4 Base 2031 + Development Option 2 PM

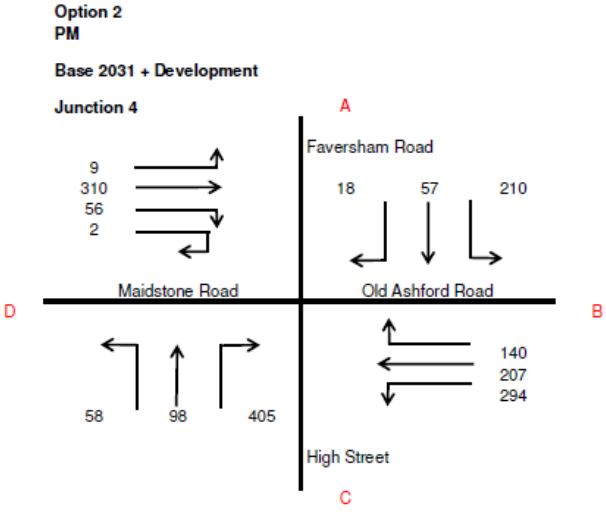


Figure 2.17: J5 Base 2031 + Development Option 2 AM

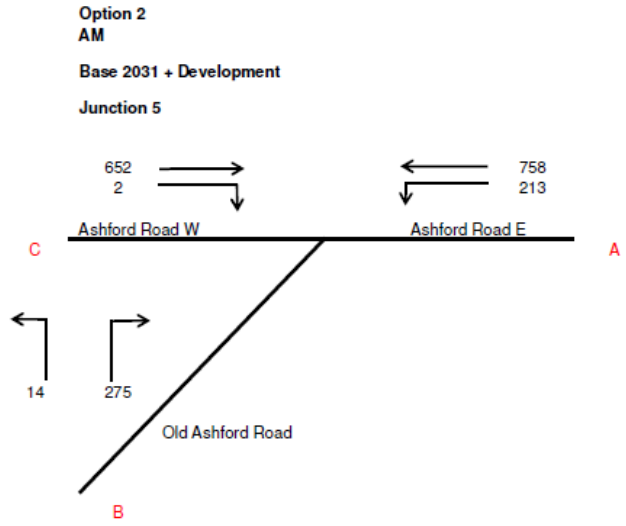
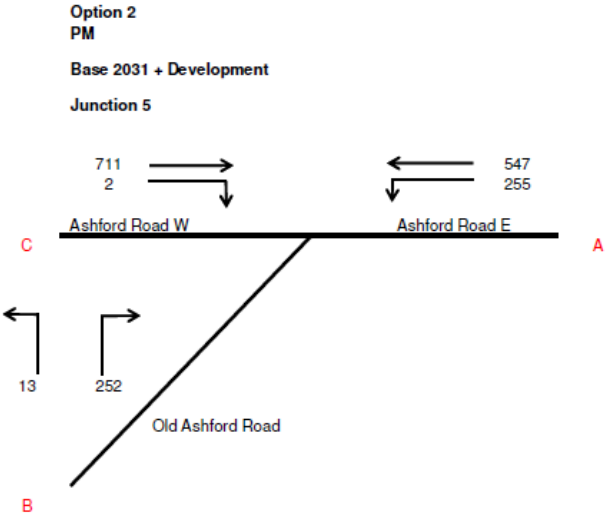


Figure 2.18: J5 Base 2031 + Development Option 2 PM



3 Review of Existing Junction Layouts

3.1 Background

The existing junction layouts were assessed for Option1 and Option 2 to establish a comparison between future distribution scenario Options 1, 2 and 4.

The results of the existing priority junction layouts tested with 2031 Base and 2031 Base + Development flows are shown below in **Table 3.1** to **Table 3.9**.

3.2 Junction 1

Table 3.1: PICADY Results – Existing Layout with 2031 Base Flows

Junction 1	AM Peak			PM Peak		
	Queue	Delay	RFC	Queue	Delay	RFC
Ham Lane to Ashford Road W / Pilgrims Way	1	13	0.36	1	12	0.36
Ham Lane to Ashford Road E / Pilgrims Way	0	41	0.25	0	29	0.30
From Ashford Road E	0	0	0.00	0	8	0.00
From Pilgrims Way	0	17	0.03	0	11	0.02
From Ashford Road W	1	12	0.34	1	11	0.33

Table 3.2: PICADY Results – Existing Layout with 2031 Base + Development Option 1

Junction 1	AM Peak			PM Peak		
	Queue	Delay	RFC	Queue	Delay	RFC
Ham Lane to Ashford Road W / Pilgrims Way	611	7171	-	459	-	-
Ham Lane to Ashford Road E / Pilgrims Way	190	7217	-	149	-	-
From Ashford Road E	0	0	0	194	-	-
From Pilgrims Way	10	-	-	6	-	-
From Ashford Road W	26	128	1.02	334	1253	1.39

Table 3.3: PICADY Results – Existing Layout with 2031 Base + Development Option 2

Junction 1	AM Peak			PM Peak		
	Queue	Delay	RFC	Queue	Delay	RFC
Ham Lane to Ashford Road W / Pilgrims Way	252	3475	-	166	2251	-
Ham Lane to Ashford Road E / Pilgrims Way	74	3541	-	53	2294	-
From Ashford Road E	0	0	0	0	16	0
From Pilgrims Way	8		-	5	-	-
From Ashford Road W	4	49	0.80	6	35	0.82

The results show the junction to be within capacity for Base 2031 although it operates significantly over capacity for both Option 1 and Option 2 with development flows. Option 2 appears to operate slightly better than Option 1, with shorter queue lengths and delay time. In addition, the major road still operates within capacity (Ashford Road east and west), whereas for Option 1 Ashford Road remains within capacity on the eastern arm only.

3.3 Junction 4

Table 3.4: PICADY Results – Existing Layout with 2031 Base Flows

Junction 4	AM Peak			PM Peak		
	Queue	Delay	RFC	Queue	Delay	RFC
From Old Ashford Road	1	11	0.38	1	11	0.39
From Faversham Road	0	6	0.02	0	6	0.03
Maidstone Road to Faversham Road / Old Ashford Road	0	8	0.08	0	8	0.08
Maidstone Road to Old Ashford Road / High Street	0	11	0.16	0	11	0.18
From High Street	1	8	0.31	1	8	0.30

Table 3.5: PICADY Results – Existing Layout with 2031 Base + Development Option 1

Junction 4	AM Peak			PM Peak		
	Queue	Delay	RFC	Queue	Delay	RFC
From Old Ashford Road	105	767	1.36	14	114	0.99
From Faversham Road	0	6	0.02	0	6	0.04
Maidstone Road to Faversham Road / Old Ashford Road	0	10	0.18	1	14	0.31
Maidstone Road to Old Ashford Road / High Street	0	18	0.31	1	19	0.42
From High Street	1	10	0.45	2	13	0.58

Table 3.6: PICADY Results – Existing Layout with 2031 Base + Development Option 2

Junction 4	AM Peak			PM Peak		
	Queue	Delay	RFC	Queue	Delay	RFC
From Old Ashford Road	780	6729	2.87	323	2869	2.13
From Faversham Road	0	6	0.02	0	6	0.05
Maidstone Road to Faversham Road / Old Ashford Road	169	-	-	76	1282	1.58
Maidstone Road to Old Ashford Road / High Street	40	-	-	15	1433	1.25
From High Street	2	14	0.59	11	62	0.93

The results show the junction to be within capacity for Base 2031. It operates over capacity for both Option 1 and Option 2 with development flows except for Option 1 PM peak where the junction operates within theoretical capacity. The junction operates considerably better with Option 1 than Option 2, with shorter queue lengths and delay time. In addition, in Option 1 only Old Ashford Road is over capacity whereas in Option 2 this significantly worsens and Maidstone Road also becomes significantly overcapacity with an excessive RFC value.

3.4 Junction 5

Table 3.7: PICADY Results – Existing Layout with 2031 Base Flows

Junction 5	AM Peak			PM Peak		
	Queue	Delay	RFC	Queue	Delay	RFC
From Old Ashford Road	1	19	0.36	1	20	0.50
From Ashford Road W	0	5	0.01	0	4	0.01

Table 3.8: PICADY Results – Existing Layout with 2031 Base + Development Option 1

Junction 5	AM Peak			PM Peak		
	Queue	Delay	RFC	Queue	Delay	RFC
From Old Ashford Road	6	120	0.92	4	68	0.83
From Ashford Road W	0	4	0.01	0	4	0.01

Table 3.9: PICADY Results – Existing Layout with 2031 Base + Development Option 2

Junction 5	AM Peak			PM Peak		
	Queue	Delay	RFC	Queue	Delay	RFC
From Old Ashford Road	37	399	1.25	8	107	0.94
From Ashford Road W	0	4	0.01	0	4	0.01

The results show the junction to be within capacity for Base 2031 and for the PM peak with development flows for Option 1. The junction is within theoretical capacity for the AM peak with development flows for Option 1. Option 2 operates over capacity in the AM peak and within theoretical capacity in the PM peak, with higher queuing and delays in Option 2.

3.5 Summary of Assessment of Existing Layouts

The junction modelling shows all three junctions to perform within capacity with 2031 base flows in both AM and PM peaks with their existing layouts.

Junction 1 (Pilgrims Way / Ashford Road (A20) / Ham Lane / Ashford Road (A20) would be significantly over capacity with both development options in 2031 with existing layout.

Junction 4 (Faversham Road / Old Ashford Road / High Street / Maidstone Road) would be significantly over capacity with Option 2 development in its existing layout. For Option 1 development, only one arm – Old Ashford Road – would be over capacity in the morning but below theoretical capacity in the PM peak.

Junction 5 (Ashford Road (A20) / Old Ashford Road) would be over capacity in the AM peak with Option 2. The junction would operate below its theoretical capacity in the AM peak with Option 1 and PM peak with Option 2. It would be within capacity for the PM peak with Option 1.

4 Layout Improvement Options

4.1 Background

A number of alternative layout options were sketched for each junction as potential mitigation measures for future junction capacity. The layout options tested are described below:

- Junction 1 (Pilgrims Way / Ashford Road (A20) / Ham Lane / Ashford Road (A20):
  - Improved priority layout with an extended ghost island
  - Roundabout layout
  - Signalised junction
  - Signalised junction with additional lanes
- Junction 4 (Faversham Road / Old Ashford Road / High Street / Maidstone Road):
  - Mini-roundabout layout
  - Signalised junction
- Junction 5 (Ashford Road (A20) / Old Ashford Road):
  - Mini-roundabout layout
  - Roundabout layout
  - Signalised junction

The layouts are shown in **Appendices A, B and C**. All options were tested with 2031 Base + Development flows. The results of the improvement layout options tested with 2031 Base + Development flows are shown below in **Table 4.1** to **Table 4.18**.

4.2 Junction 1

Three potential junction options were designed and tested for junction 1, an extended ghost island priority, a standard roundabout and a signalised junction. The concept sketches are available in **Appendix A**. Detailed assessment outputs are included in **Appendix D**.

Table 4.1: PICADY Results – Improved Priority Layout with 2031 Base + Development Option 1

Junction 1	AM Peak			PM Peak		
	Queue	Delay	RFC	Queue	Delay	RFC
Ham Lane to Ashford Road W / Pilgrims Way	552	5546	-	444	-	-
Ham Lane to Ashford Road E / Pilgrims Way	172	5586	-	143	-	-
From Ashford Road E	0	0	0	0	31	0.01
Pilgrims Way to Ashford Road E / Ham Lane	8	-	-	4	-	-
Pilgrims Way to Ashford Road W / Ham Lane	01	-	-	1	-	-
From Ashford Road W	8	64	0.91	159	855	1.25

Table 4.2: PICADY Results – Improved Priority Layout with 2031 Base + Development Option 2

Junction 1	AM Peak			PM Peak		
	Queue	Delay	RFC	Queue	Delay	RFC
Ham Lane to Ashford Road W / Pilgrims Way	228	2746	-	146	1783	-
Ham Lane to Ashford Road E / Pilgrims Way	67	2806	-	48	1824	-
From Ashford Road E	0	0	0.00	0	14	0.00
Pilgrims Way to Ashford Road E / Ham Lane	7	-	-	4	-	-
Pilgrims Way to Ashford Road W / Ham Lane	1	-	-	1	-	-
From Ashford Road W	2	39	0.71	3	32	0.74

The results show the junction to be over capacity for both Option 1 and Option 2. Although Option 2 shows slightly lower queuing and delay time the RFC values are still excessive showing significantly poor junction performance and operation extremely over capacity.

Table 4.3: ARCADY Results – Roundabout Layout with 2031 Base + Development Option 1

Junction 1	AM Peak			PM Peak		
	Queue	Delay	RFC	Queue	Delay	RFC
Ashford Road E	75	184	1.11	7	27	0.88
Ham Lane	10	44	0.92	1	6	0.51
Ashford Road W	3	10	0.75	88	172	1.10
Pilgrims Way	0	18	0.03	0	31	0.05

Table 4.4: ARCADY Results – Roundabout Layout with 2031 Base + Development Option 2

Junction 1	AM Peak			PM Peak		
	Queue	Delay	RFC	Queue	Delay	RFC
Ashford Road E	145	389	1.20	5	19	0.84
Ham Lane	1	10	0.52	1	5	0.35
Ashford Road W	3	9	0.72	72	140	1.08
Pilgrims Way	0	16	0.03	0	28	0.04

The results show the junction to be over capacity for both Option 1 and Option 2. Although Option 2 shows slightly lower queuing and delay time the RFC values still significantly exceed the theoretical capacity, showing poor junction performance and operation over capacity.

Table 4.5: LINSIG Results – Signalised Layout with 2031 Base + Development Option 1

	AM		PM	
Junction 1	DoS	Queue	DoS	Queue
Ashford Road E	136.9%	192	119.7%	99
Ham Lane	134.9%	138	118.6%	63
Ashford Road W	133.0%	57	117.7%	103
Pilgrims Way	1.5%	0	1.3%	0
PRC	-52.1		-33.0	

Table 4.6: LINSIG Results – Signalised Layout with 2031 Base + Development Option 2

	AM		PM	
Junction 1	DoS	Queue	DoS	Queue
Ashford Road E	125.2%	185	84.0%	22
Ham Lane	120.7%	54	95.9%	15
Ashford Road W	96.1%	11	101.1%	62
Pilgrims Way	2.4%	0	1.6%	0
PRC	-39.1		-12.4	

The results show the junction to be over capacity for both Option 1 and Option 2. Although Option 2 shows slightly lower queuing and delay time, the DoS values are still excessive showing junction performance and operation extremely over capacity.

Following this, an amended layout was considered introducing additional lanes to improve junction performance. A second lane was added to Ashford Rd East and West, and to Ham Lane. This allows for the left turn lane into Ham Lane to run at the same time as the right turn from Ashford Road West into Ham Lane, thereby increasing the junction efficiency. In Option 1 there is a higher flow for the right turn into Ham Lane and left turn out of Ham Lane and it works best on a short cycle time (50s). For Option 2 these turning flows are lower and the main road flow on Ashford Rd is higher and therefore it works best at a higher cycle time (90s).

Table 4.7: LINSIG Results – Signalised Layout (additional lanes) with 2031 Base + Development Option 1

	AM		PM	
Junction 1	DoS	Queue	DoS	Queue
Ashford Road E	82.6%	9	59.2%	5
Ham Lane	84.0%	10	61.3%	5
Ashford Road W	56.8%	6	80.0%	11
Pilgrims Way	2.7%	0	1.8%	0
PRC	7.2		12.4	

Table 4.8: LINSIG Results – Signalised Layout (additional lanes) with 2031 Base + Development Option 2

	AM		PM	
Junction 1	DoS	Queue	DoS	Queue
Ashford Road E	84.6%	13	57.4%	6
Ham Lane	84.4%	11	62.7%	7
Ashford Road W	58.4%	7	88.1%	19
Pilgrims Way	4.8%	0	3.2%	0
PRC	6.4		2.1	

The results show the junction would operate within desirable capacity for both Option 1 and Option 2, with all DoS values below 90%. Queuing would also decrease significantly for both Option 1 and Option 2. Both options would work equally well with the new revised signalised junction with additional lanes.

4.3 Junction 4

Two potential junction options were designed and tested for junction 4, a mini-roundabout and a signalised junction. The concept sketch drawings are available in **Appendix B**. Detailed assessment outputs are included in **Appendix E**.

Table 4.9: ARCADY Results – Mini-roundabout Layout with 2031 Base + Development Option 1

Junction 4	AM Peak			PM Peak		
	Queue	Delay	RFC	Queue	Delay	RFC
Faversham Road	0	7	0.24	1	10	0.35
Old Ashford Road	3	20	0.77	1	10	0.55
High Street	3	25	0.72	3	27	0.78
Maidstone Road	1	10	0.33	1	13	0.49

Table 4.10: ARCADY Results – Mini-roundabout Layout with 2031 Base + Development Option 2

Junction 4	AM Peak			PM Peak		
	Queue	Delay	RFC	Queue	Delay	RFC
Faversham Road	1	10	0.35	2	28	0.71
Old Ashford Road	222	937	1.40	6	35	0.88
High Street	15	127	1.00	70	453	1.25
Maidstone Road	1	16	0.52	6	59	0.89

The results show the junction to be within desirable capacity for Option 1 but over capacity for Option 2. For Option 1 all RFC values are below 0.85 with relatively low queues and delays. For Option 2 Old Ashford Road and the High Street are over theoretical capacity in the AM peak, with the addition of Maidstone Road being over desirable capacity in the PM peak with significant queueing and delays.

Table 4.11: LINSIG Results – Signalised Layout with 2031 Base + Development Option 1

	AM		PM	
Junction 4	DoS	Queue	DoS	Queue
Faversham Road	24.1%	2	23.5%	2
Old Ashford Road	63.9%	8	59.3%	6
High Street	65.5%	6	60.8%	6
Maidstone Road	23.6%	2	41.2%	3
PRC	37.4		48.1	

Table 4.12: LINSIG Results – Signalised Layout with 2031 Base + Development Option 2

	AM		PM	
Junction 4	DoS	Queue	DoS	Queue
Faversham Road	109.2%	17	114.3%	27
Old Ashford Road	110.5%	81	116.4%	61
High Street	107.3%	30	116.4%	54
Maidstone Road	67%	4	59.2%	6
PRC	-22.8		-29.4	

The results show the junction to be within desirable capacity for Option 1 but over capacity for Option 2. For Option 1 all DoS values would be below 90% with relatively low queuing. For Option 2 Faversham Road, Old Ashford Road, and the High Street would exceed theoretical capacity in the AM and PM peak, with significant queuing.

4.4 Junction 5

Three potential junction options were designed and tested for junction 5, a mini-roundabout, a standard roundabout and a signalised junction. The concept sketch drawings are available in **Appendix C**. Detailed assessment outputs are included in **Appendix F**.

Table 4.13: ARCADY Results – Roundabout Layout with 2031 Base + Development Option 1

Junction 5	AM Peak			PM Peak		
	Queue	Delay	RFC	Queue	Delay	RFC
Ashford Road E	3	11	0.75	2	7	0.62
Old Ashford Road	0	4	0.19	0	4	0.19
Ashford Road W	3	12	0.72	3	13	0.74

Table 4.14: ARCADY Results – Roundabout Layout with 2031 Base + Development Option 2

Junction 5	AM Peak			PM Peak		
	Queue	Delay	RFC	Queue	Delay	RFC
Ashford Road E	3	11	0.75	2	7	0.62
Old Ashford Road	0	5	0.28	0	4	0.23
Ashford Road W	2	10	0.66	3	12	0.71

The results show the junction to be within desirable capacity for both Option 1 and Option 2 with all RFC values below 0.85 with relatively low queues and delays.

Table 4.15: ARCADY Results – Mini-roundabout Layout with 2031 Base + Development Option 1

Junction 5	AM Peak			PM Peak		
	Queue	Delay	RFC	Queue	Delay	RFC
Ashford Road E	18	62	0.97	4	17	0.80
Old Ashford Road	4	64	0.81	2	29	0.65
Ashford Road W	13	58	0.95	18	80	0.99

Table 4.16: ARCADY Results – Mini-roundabout Layout with 2031 Base + Development Option 2

Junction 5	AM Peak			PM Peak		
	Queue	Delay	RFC	Queue	Delay	RFC
Ashford Road E	18	62	0.97	4	17	0.80
Old Ashford Road	21	233	1.11	2	29	0.70
Ashford Road W	7	35	0.88	14	66	0.96

The results show the junction to be within theoretical capacity for Option 1 and over capacity for Option 2 in the AM peak and within theoretical capacity for Option 2 in the PM peak. Despite similar results with regards to queuing, Option 2 results show significant delays on Old Ashford Road.

Table 4.17: LINSIG Results – Signalised Layout with 2031 Base + Development Option 1

	AM		PM	
Junction 5	DoS	Queue	DoS	Queue
Ashford Road E	72.8%	11	65.0%	9
Old Ashford Road	74.3%	4	62.1%	4
Ashford Road W	55.9%	7	61.3%	8
PRC	21.1		38.5	

Table 4.18: LINSIG Results – Signalised Layout with 2031 Base + Development Option 2

	AM		PM	
Junction 5	DoS	Queue	DoS	Queue
Ashford Road E	80.8%	14	62.9%	10
Old Ashford Road	77.4%	6	65.9%	5
Ashford Road W	53.8%	7	60.3%	8
PRC	11.4		30.1	

The results show the junction to be within desirable capacity for both Option 1 and Option 2, with all DoS values below 90% and with relatively low queuing.

5 Discussion of Results

5.1 Junction 1

The existing priority junction was tested with both development options and neither remained within operating capacity.

The junction was then tested with the improvement layout options (an extended ghost island priority, a standard roundabout and a signalised junction) however the results show that the junction would still operate significantly over capacity for both development options.

Following this, alterations were made to the layout of the signalised junction to optimise junction performance, adding lanes for Ashford Rd East and West, and for Ham Lane. This allows for the left turn from Ham Lane to run at the same time as the right turn into Ham Lane, thereby increasing the junction efficiency. In Option 1 there is a higher flow for the right turn into Ham Lane and left turn out of Ham Lane and it works best on a short cycle time (50s). For Option 2 these turning flows are lower and the main road flow on Ashford Rd is higher and therefore it works best at a higher cycle time (90s). These further improvements were added to the signalised layout in the LINSIG model which worked sufficiently with both development options.

The initial sketch included in **Appendix A** would suggest that the extended signalised junction can be accommodated within the highway land boundary although the junction intervisibility zone would go across third party land requiring a departure from standard.

The signalised junction layout with additional lanes is the only layout that would provide sufficient capacity at this junction. It would fully mitigate the impact of the development considered in this report.

5.2 Junction 4

The existing priority junction was tested with both development options, with results showing the junction would not work with Option 2 (majority of development to the east of Lenham), and although performing better, that it would also not operate within capacity with Option 1.

The junction was then tested with the improvement layout options (mini-roundabout and a signalised junction), with both layouts operating within capacity with Option 1 but not with Option 2. From an operational point of view, both junction forms would therefore be acceptable (for development Option 1). Junction intervisibility is partially obscured by existing buildings, a departure from standard would therefore be required for the signalised option.

In cost terms, it is likely that the signalised option would be the more expensive option due to the signal equipment that would be needed. Road space would remain the same for both options and some kerb alignment may be required for either of the options. Visually, the impact of the signalised option is likely to be greater.

Overall, a mini-roundabout option is considered to be the less intrusive option and may therefore be preferable over a signalised option.

5.3 Junction 5

The existing priority junction was tested with both development options, with results showing the junction would operate within (theoretical) capacity with Option 1 (majority of development to the west of Lenham) but would not work with Option 2.

The junction was then tested with the improvement layout options (a mini-roundabout, a standard roundabout and a signalised junction), with both the standard roundabout and the signalised junction operating within capacity for both development options. The mini-roundabout would not work with either development option and would not be considered an acceptable solution for this location, a junction on the A20, a principal road with a speed limit of 60mph.

On balance, it is considered that a signalised junction may be more appropriate at this location, in order to provide consistency for drivers along the A20 who would encounter another signalised junction at Ham Lane but no roundabouts in the vicinity of Lenham. Furthermore, the signalised option is likely to be less expensive to install than the roundabout which would require re-alignment of all arms and complete carriageway resurfacing. Also, it is likely that the signalised junction would provide a better solution in terms of accessing the property to the south of the junction (Little Pivington Farm).

Unless the existing priority arrangement is considered acceptable despite the results showing that the desirable capacity is exceeded, a signalised solution to fully mitigate the impact of the development would be considered the preferred solution at this stage.

5.4 Broad Location Development Scenarios

The junction in the centre of Lenham (junction 4) is very constrained and requires for development to be located to the west of it as much as possible. This is because the majority of trips are to / from the west (Maidstone) and with development located to the west, this junction is therefore less affected.

For the other two junctions on the A20 (junction 1 and 5) either side of Lenham, the assessment results show that there are feasible layouts that could accommodate either development option 1 or 2.

Therefore, due to the limitations of junction 4, it is recommended that the majority of development is located to the west of Lenham in line with Option 1 as per MBC's brief.

5.5 Impact on Old Ham Lane

Subsequent to this study being commissioned, MBC queried the impact of development allocation on Old Ham Lane. Whilst the impact of any additional development on Old Ham Lane and the railway crossing has not been assessed in detail, some broad considerations are provided below.

The distribution of traffic from the additional 1500 units is based on that presented in Transport Assessments and Statements of sites nearby. None of those documents route any traffic via the Old Ham Lane railway crossing. This is supported by the fact that Old Ham Lane provides a parallel route to Headcorn Road but is of a lesser standard due to it being single track for some of its length, and does not in itself provide a link to any additional destinations. It is therefore unlikely that a significant number of trips from the additional 1500 units considered in this report would use this route.

It is however accepted that by locating a greater amount of development to the west of Lenham as per Option 1, the chance of very small numbers of development trips being routed via Old Ham Lane could potentially be greater than if development was located to the east of Lenham.

6 Summary

Mott MacDonald was commissioned by Maidstone Borough Council (MBC) to consider the capacity of three junctions in Lenham. This work is a continuation of work carried out in 2015 when six junctions were considered in Lenham, three of which exceeded capacity when development flows were added. This report considers these three junctions and also looks at two other development scenarios locating 1500 residential units in two different ways – one of which locates the majority of development to the west of Lenham and the second option to the east of Lenham.

Base traffic was taken from the previous work with developments that were included unchanged (except for the additional 1500 units). TEMPro was used to growth the base flows. Growth factors were adjusted taking account of the development considered to avoid double counting.

The existing priority layouts were tested with 2031 Base flows and all showed to be working within capacity. These layouts were then tested with both development options and only Junction 5 was found to work within theoretical capacity with development Option 1. A number of alternative junction layouts were considered for each junction, namely:

- Junction 1 (Pilgrims Way / Ashford Road (A20) / Ham Lane / Ashford Road (A20):
  - Improved priority layout with an extended ghost island
  - Roundabout layout
  - Signalised junction
  - Signalised junction with additional lanes
- Junction 4 (Faversham Road / Old Ashford Road / High Street / Maidstone Road):
  - Mini-roundabout layout
  - Signalised junction
- Junction 5 (Ashford Road (A20) / Old Ashford Road):
  - Mini-roundabout layout
  - Roundabout layout
  - Signalised junction

For Junction 1, only the signalised junction layout with additional lanes would operate within capacity. It would do so with both development options (Option 1 and option 2).

Both the mini-roundabout layout as well as the signalised junction would work for Junction 4, but only with development Option 1. It is however considered that a mini-roundabout may be preferable due to lesser visual impact and lower costs.

The roundabout and signalised junction layouts would operate within capacity for Junction 5 with both development options. Unless the existing priority arrangement is considered acceptable despite the results showing that the desirable capacity is exceeded, a signalised solution to fully mitigate the impact of the development would be considered the preferable solution due to likely lower costs.

Therefore, due to the limitations of junction 4, it is recommended that the majority of development is located to the west of Lenham in line with Option 1 as per MBC's brief.

Sketches for all the options considered are presented in **Appendices A, B and C** and the assessment results are provided in **Section 4** of this report. Detailed assessment outputs are included in **Appendix D, E and F**. The results are discussed in **Section 5** of this report.

Appendices

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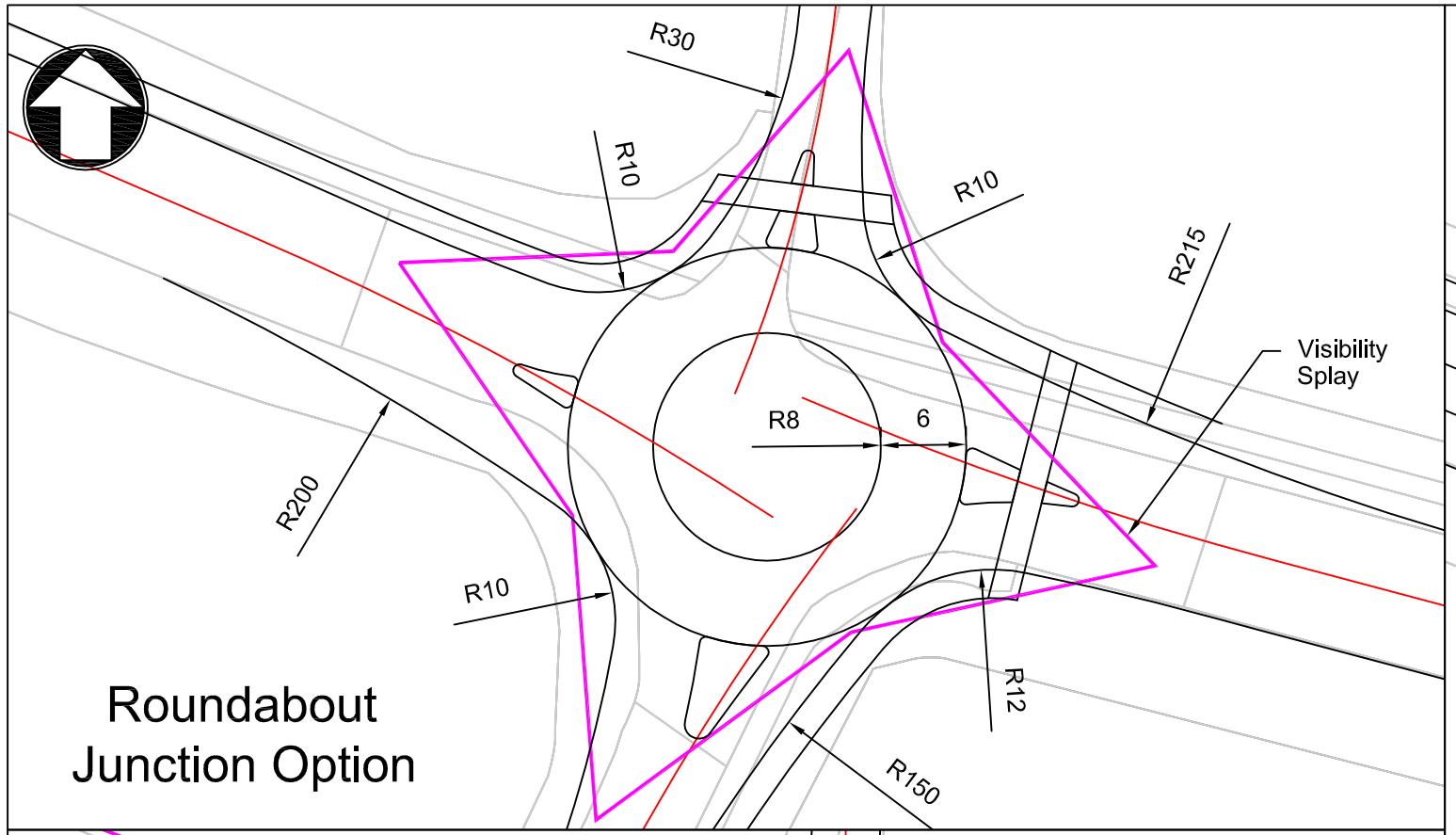
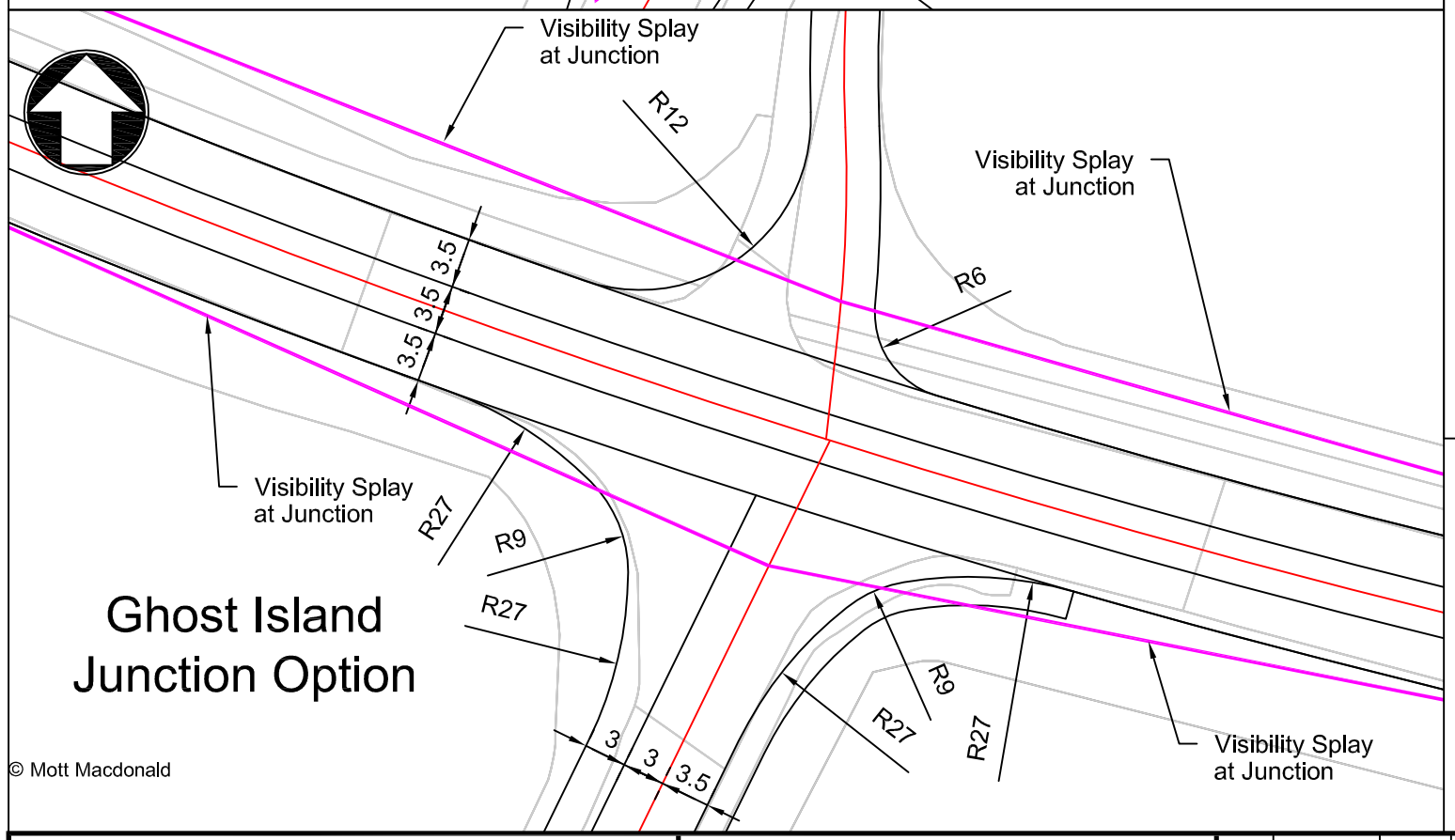
Appendix A. Junction 1 Layout Improvement Options



Roundabout
Junction Option



Ghost Island
Junction Option

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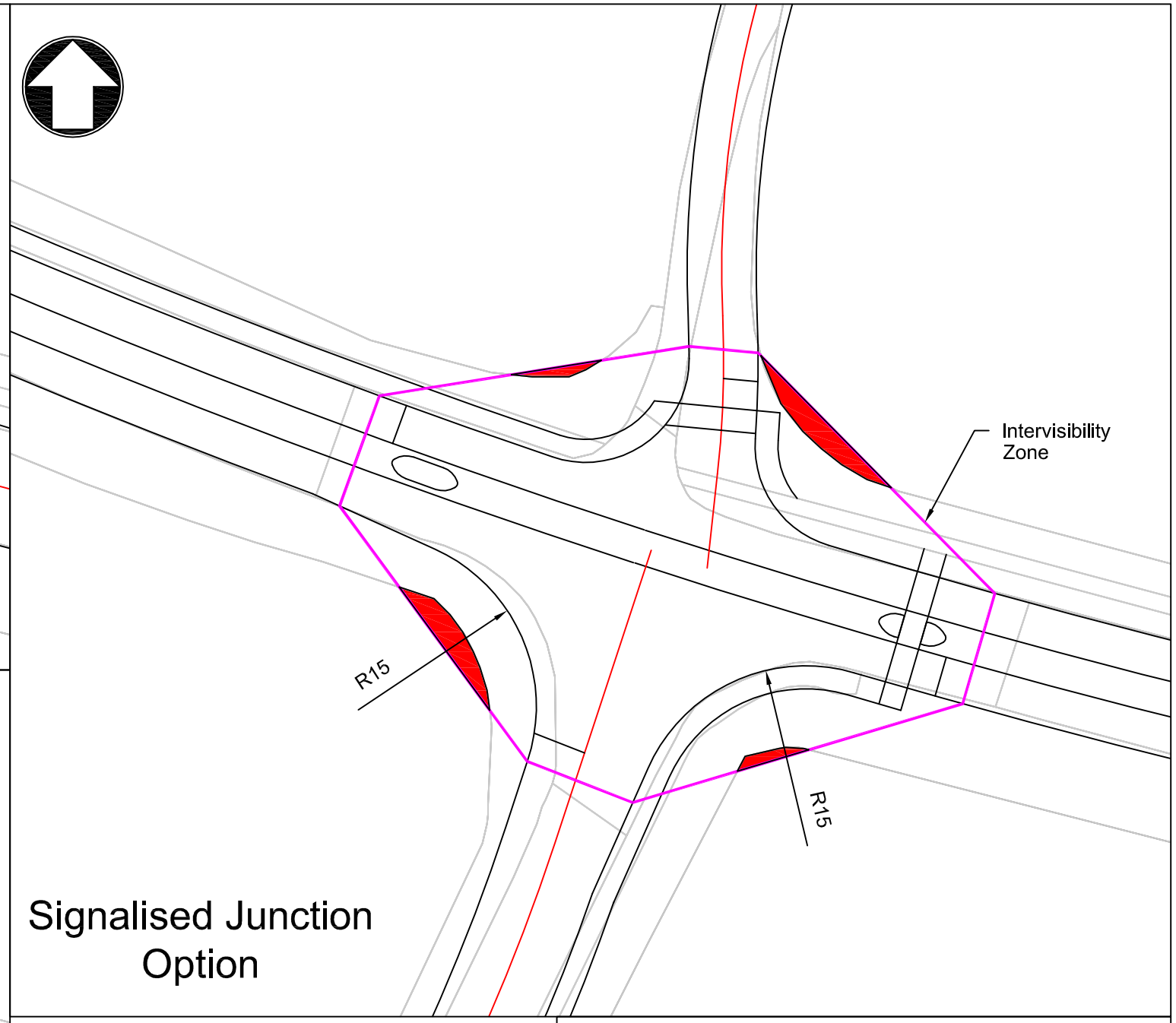

Signalised Junction
Option

Key:

Additional highway land required

Junction intervisibility zone boundary

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Rev	Date	Drawn	Description	Ch'k'd	App'd

Title

Lenham
Concept Sketch
Junction 1
Pilgrims Way/Ashford Road/
Ham Lane/Ashford Road

Drawn	BSD	
Checked	AF	
Approved	SC	

Scale at A3
1:500

Drawing Number
344395-MMD-C-SK-LN01

Security	Status	Rev
STD	Pre	P1

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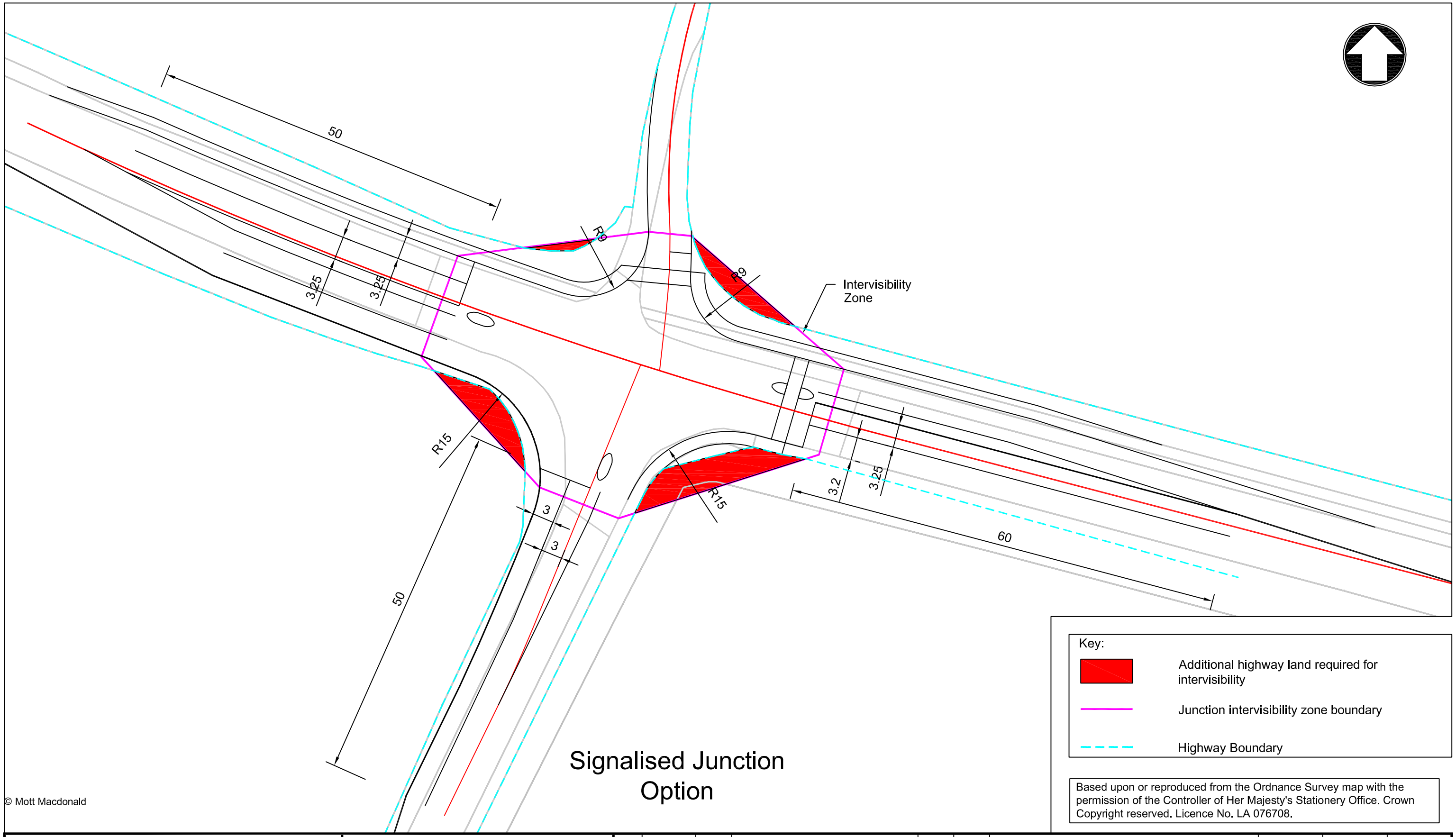

Key:

- Additional highway land required for intervisibility
- Junction intervisibility zone boundary
- Highway Boundary

Signalised Junction Option

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Rev	Date	Drawn	Description	Ch'k'd	App'd

Title

Lenham
Concept Sketch
Junction 1
Pilgrims Way/Ashford Road/
Ham Lane/Ashford Road

Drawn	BSD		
Checked			
Approved			
Scale at A3	1:500		

Drawing Number	Security	Status	Rev
344395-MMD-C-SK-LN01	STD	Pre	P1

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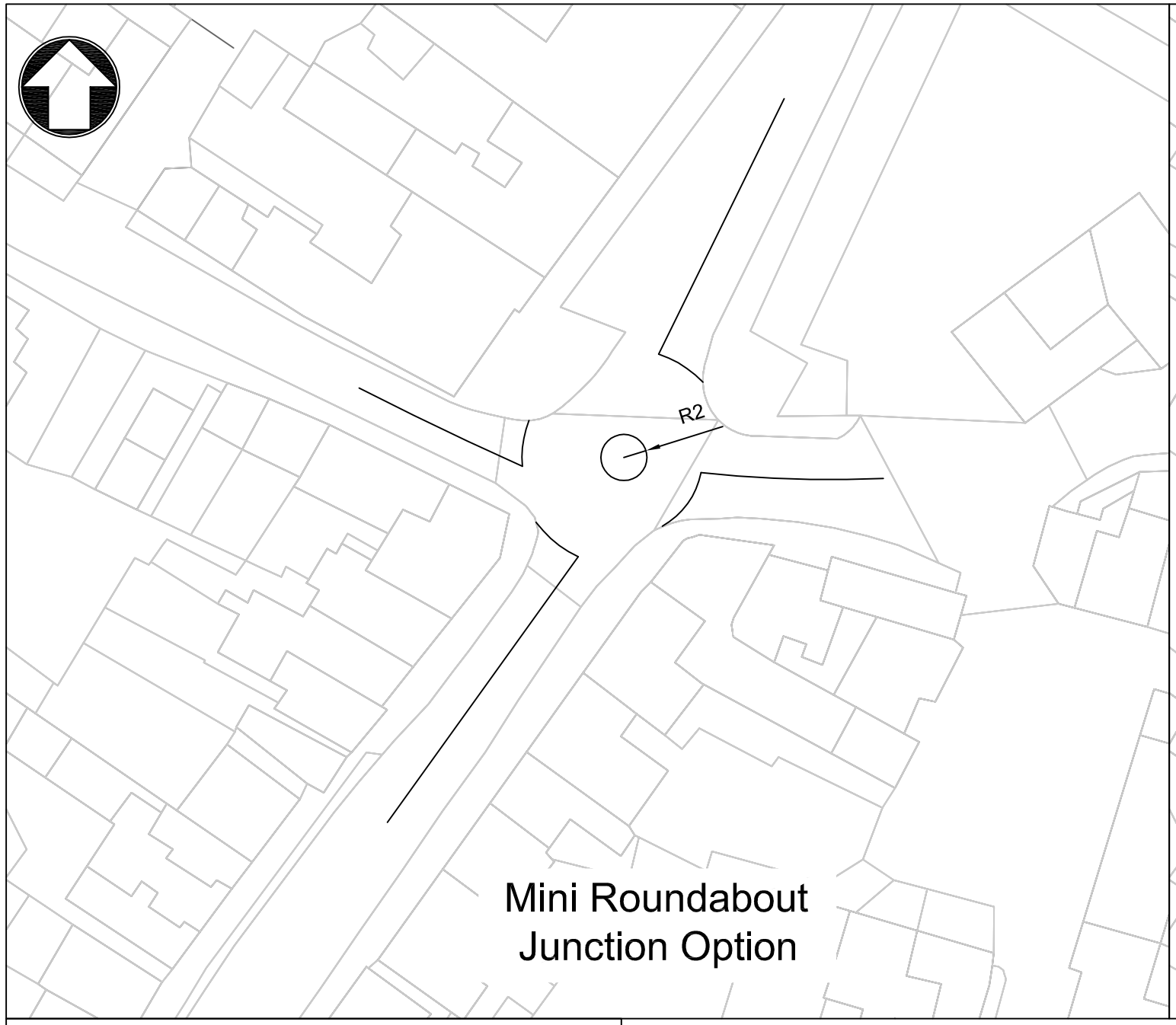
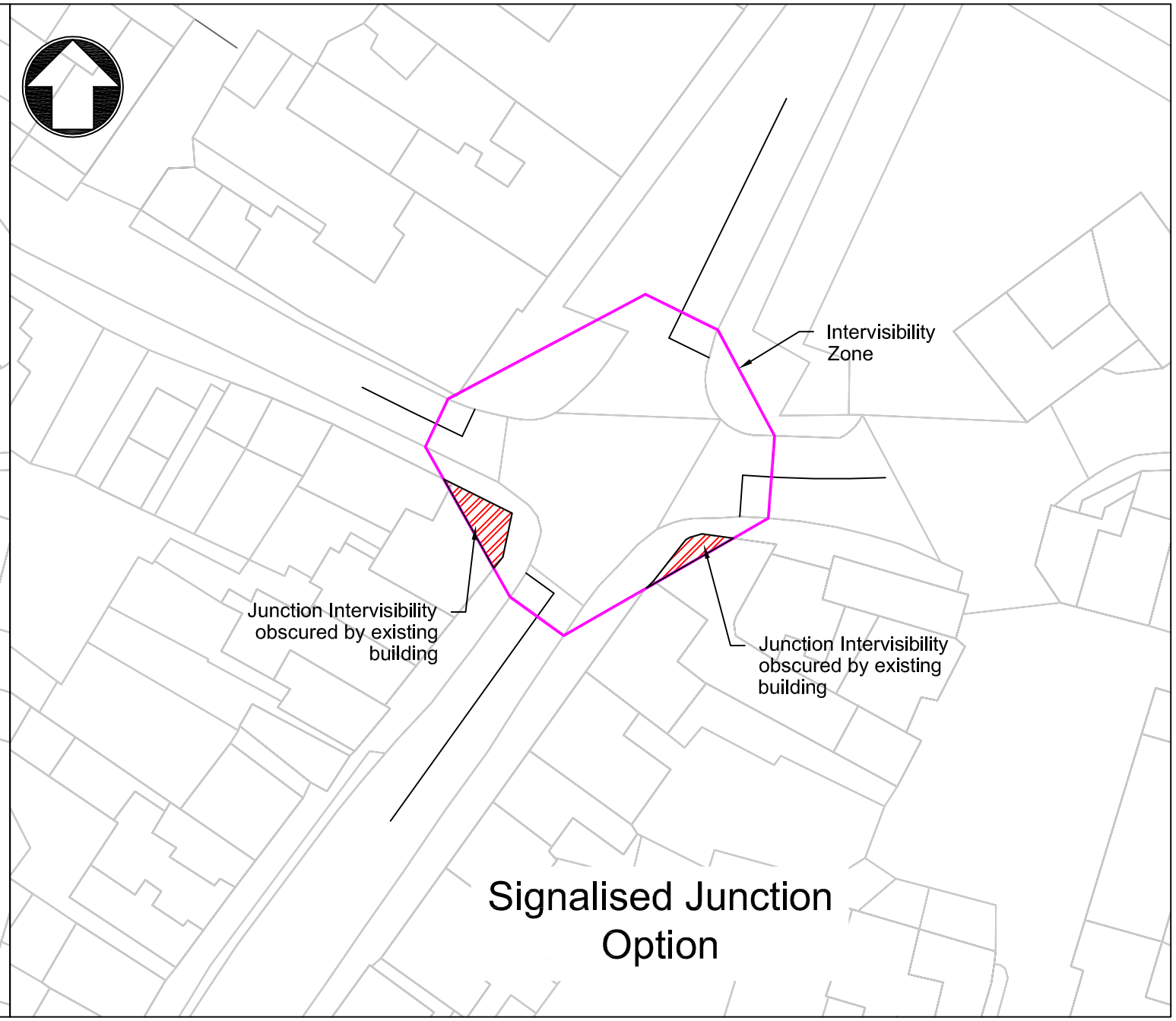
Appendix B. Junction 4 Layout Improvement Options



Mini Roundabout Junction Option



Signalised Junction Option

Key:

Additional highway land required

Junction intervisibility zone boundary

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Rev	Date	Drawn	Description	Ch'k'd	App'd

Title

Lenham
Concept Sketch
Junction 4
Faversham Road/Old Ashford Road/
High Street/Maidstone Road

Drawn	BSD	
Checked	AF	
Approved	SC	

Scale at A3: 1:500

Drawing Number: 344395-MMD-C-SK-LN04

Security	Status	Rev
STD	Pre	P1

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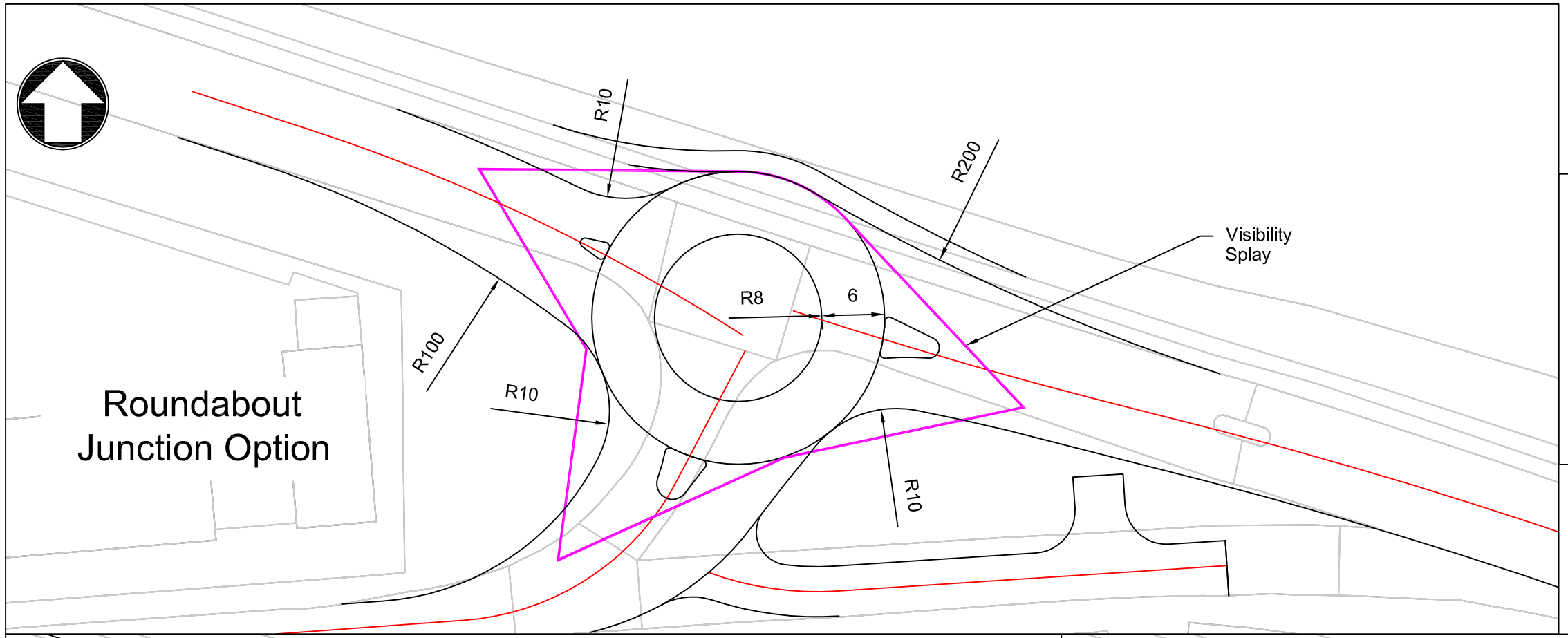
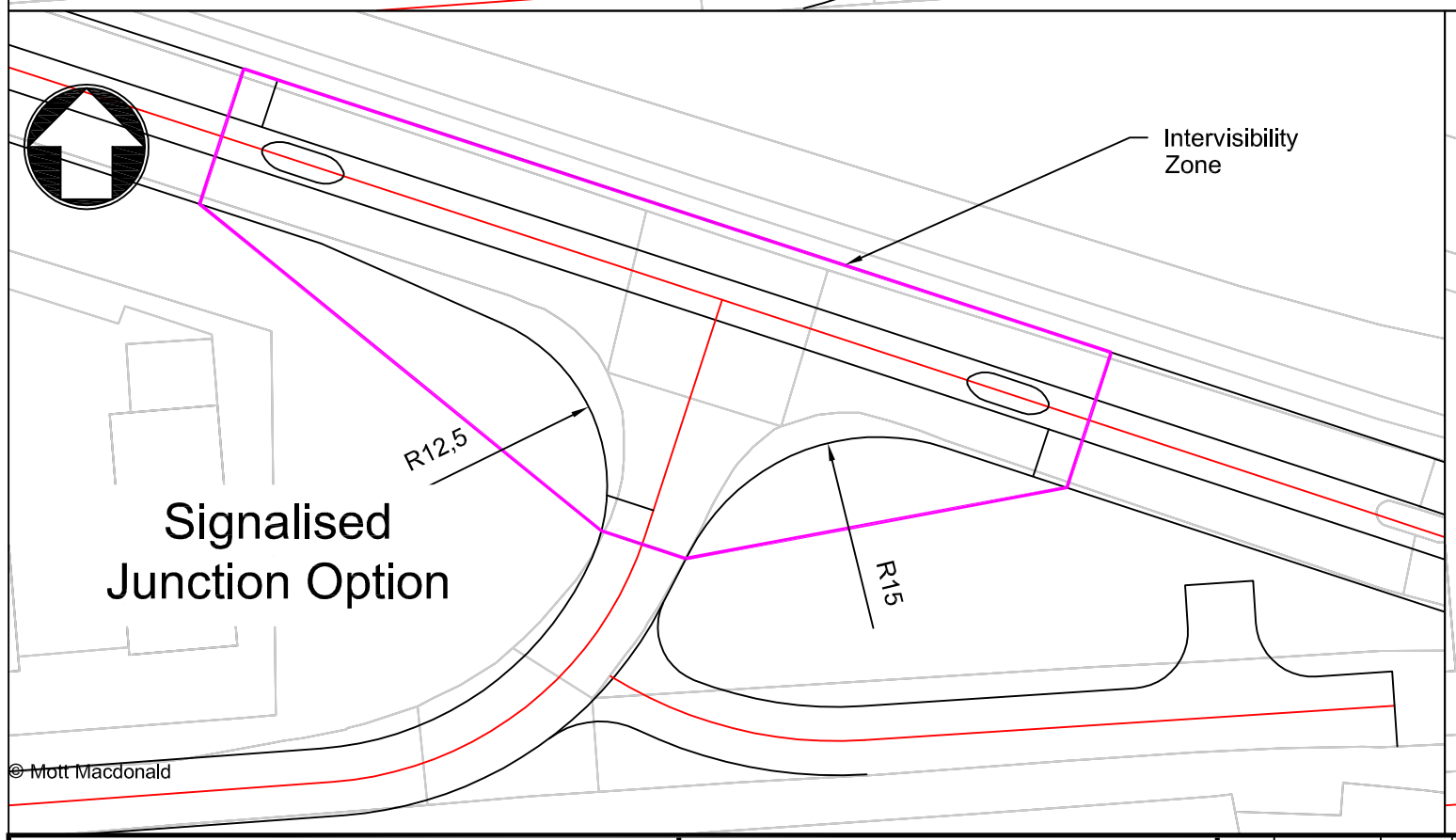
Appendix C. Junction 5 Layout Improvement Options



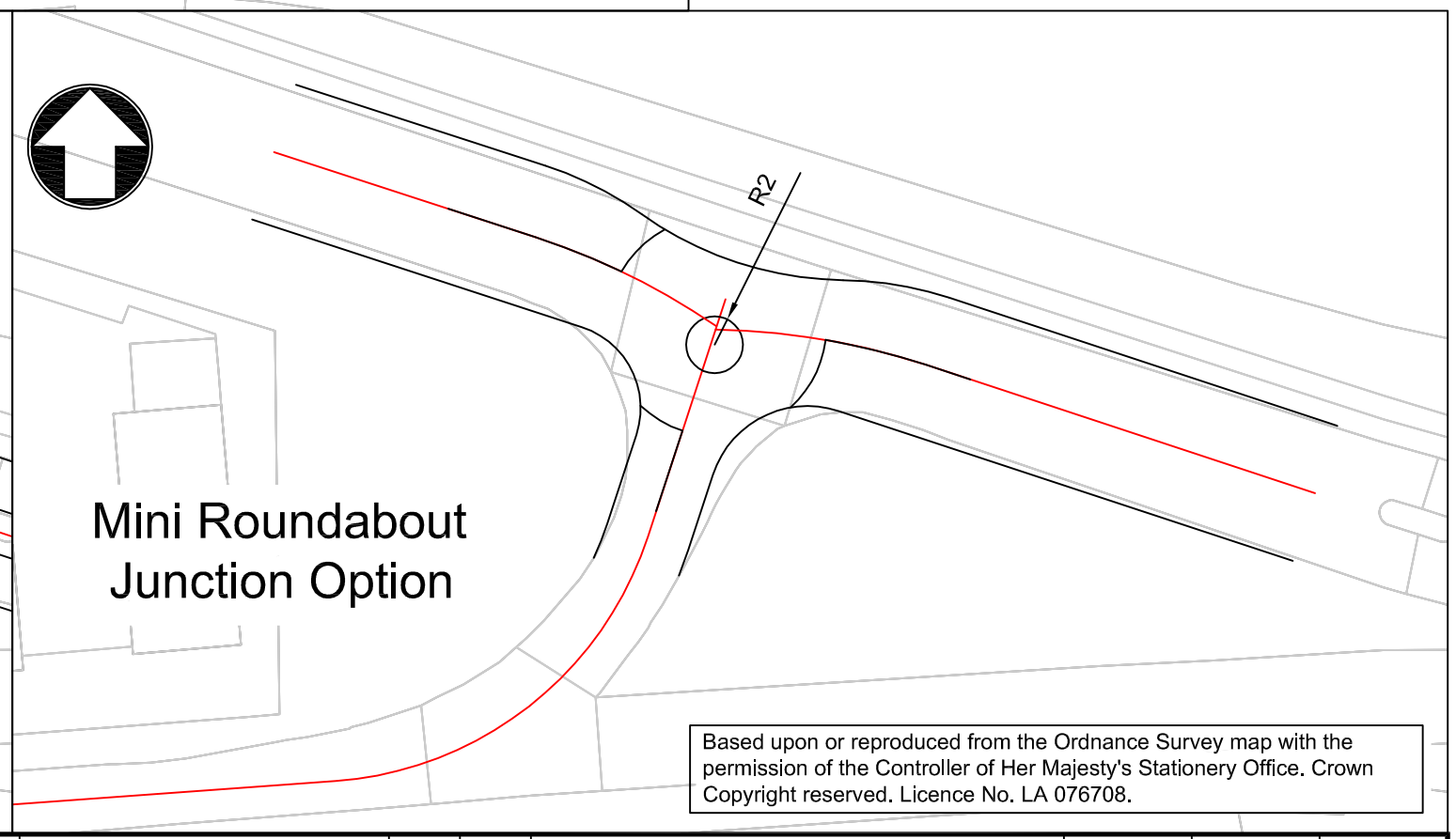
Roundabout
Junction Option

Additional highway land required

Junction intervisibility zone boundary



Signalised
Junction Option



Mini Roundabout
Junction Option

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Rev	Date	Drawn	Description	Ch'k'd	App'd

Title

Lenham
Concept Sketch
Junction 5
Ashford Road/Old Ashford Road/
Ashford Road

Drawn	BSD	
Checked	AF	
Approved	SC	

Scale at A3
1:500

Drawing Number
344395-MMD-C-SK-LN05

Security	Status	Rev
STD	Pre	P1

P:\Croydon\MMH\BSD\344395 - Maidstone support\344395-Lenham\3.0 Technical\3.10 CAD\3.10.4 Working Drawings\344395-MMD-C-SK-00-XX-LN01,LN04,LN05 V2.dwg Apr 14, 2016 - 1:05PM bas70796

Appendix D. Junction 1 Picady / Arcady / Linsig Outputs

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.1.4646 []
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Filename: J1 Ashford Road Ham Lane Pilgrims Way.j9
Path: P:\Southampton\ITW\Projects\344395 Maidstone BC Transport Planning\Lenham TMS April 2016\PICADY models for Addendum\J1 Ashford Road Ham Lane Pilgrims Way
Report generation date: 20/04/2016 17:11:53

»J1 Ashford Road/Ham Lane/Pilgrims Way - Base 2031, AM
»J1 Ashford Road/Ham Lane/Pilgrims Way - Base 2031, PM
»J1 Ashford Road/Ham Lane/Pilgrims Way - Option 1 Base 2031 + Dev , AM
»J1 Ashford Road/Ham Lane/Pilgrims Way - Option 1 Base 2031 + Dev, PM
»J1 Ashford Road/Ham Lane/Pilgrims Way - Option 2 Base 2031 + Dev , AM
»J1 Ashford Road/Ham Lane/Pilgrims Way - Option 2 Base 2031 + Dev, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
J1 Ashford Road/Ham Lane/Pilgrims Way - Base 2031								
Stream B-CD	0.6	13.46	0.36	B	0.6	11.53	0.36	B
Stream B-AD	0.4	40.63	0.25	E	0.4	29.29	0.30	D
Stream A-BCD	0.0	0.00	0.00	A	0.0	7.79	0.00	A
Stream D-ABC	0.0	17.38	0.03	C	0.0	11.03	0.02	B
Stream C-ABD	0.5	12.48	0.34	B	0.6	11.47	0.33	B
J1 Ashford Road/Ham Lane/Pilgrims Way - Option 1 Base 2031 + Dev								
Stream B-CD	610.8	7171.49	9999999999.00	F	459.0	9999999999.00	9999999999.00	F
Stream B-AD	190.1	7216.86	9999999999.00	F	148.5	9999999999.00	9999999999.00	F
Stream A-BCD	0.0	0.00	0.00	A	194.0	9999999999.00	9999999999.00	F
Stream D-ABC	9.5	9999999999.00	9999999999.00	F	6.0	9999999999.00	9999999999.00	F
Stream C-ABD	26.3	128.00	1.02	F	333.6	1253.35	1.39	F
J1 Ashford Road/Ham Lane/Pilgrims Way - Option 2 Base 2031 + Dev								
Stream B-CD	251.6	3474.72	9999999999.00	F	166.4	2250.51	9999999999.00	F
Stream B-AD	73.8	3540.82	9999999999.00	F	53.1	2294.42	9999999999.00	F
Stream A-BCD	0.0	0.00	0.00	A	0.0	15.72	0.00	C
Stream D-ABC	7.8	9999999999.00	9999999999.00	F	4.9	9999999999.00	9999999999.00	F
Stream C-ABD	4.2	48.88	0.80	E	5.6	35.11	0.82	E

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

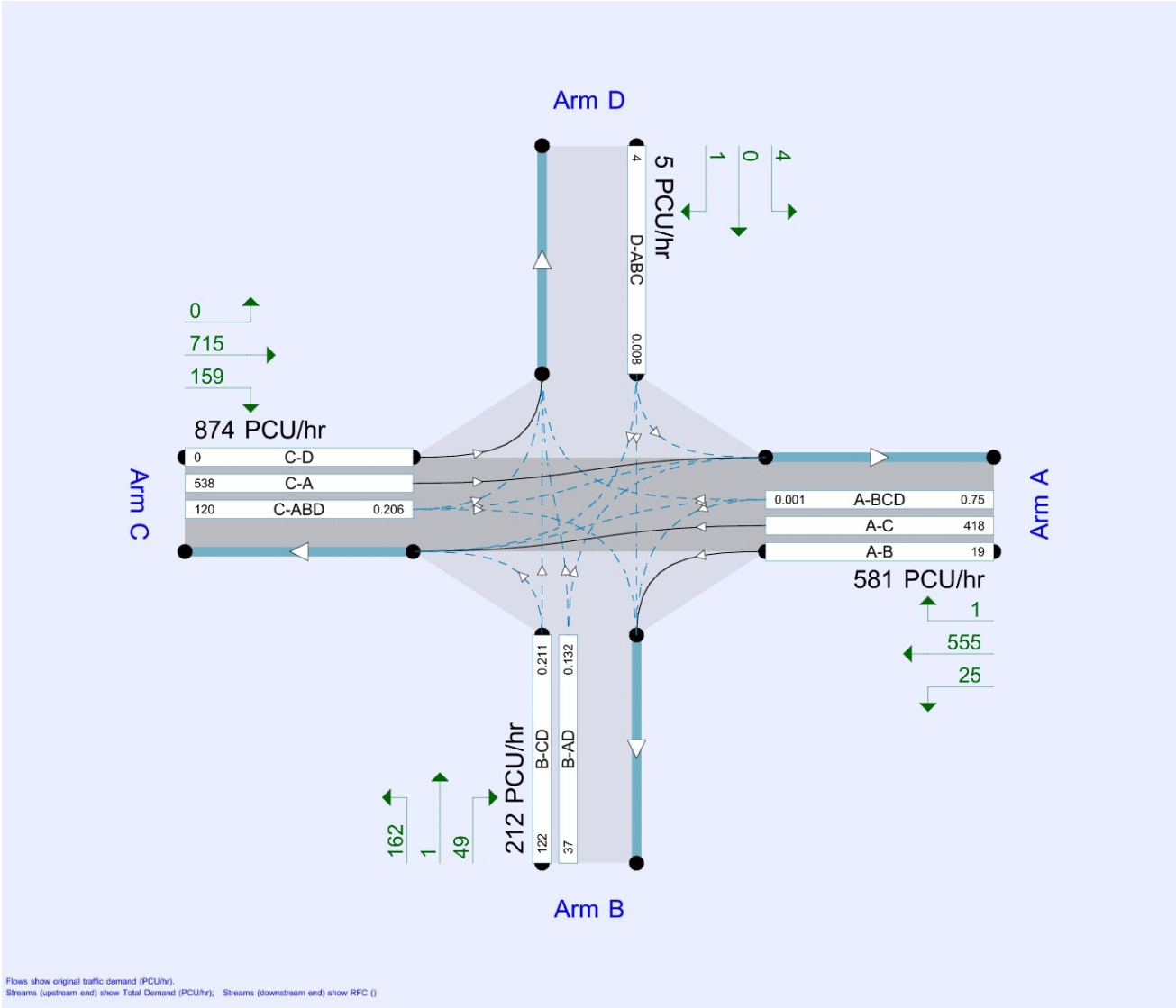
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	30/06/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MOTTMAC\rap67683
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	PCU	PCU	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	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base 2031	AM	ONE HOUR	07:30	09:00	15	✓
D2	Base 2031	PM	ONE HOUR	16:30	18:00	15	✓
D3	Option 1 Base 2031 + Dev	AM	ONE HOUR	07:30	09:00	15	✓
D4	Option 1 Base 2031 + Dev	PM	ONE HOUR	16:30	18:00	15	✓
D7	Option 2 Base 2031 + Dev	AM	ONE HOUR	07:30	09:00	15	✓
D8	Option 2 Base 2031 + Dev	PM	ONE HOUR	16:30	18:00	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	J1 Ashford Road/Ham Lane/Pilgrims Way	✓	100.000	100.000

J1 Ashford Road/Ham Lane/Pilgrims Way - Base 2031, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	3.14	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Ashford Road E		Major
B	Ham Lane S		Minor
C	Ashford Road W		Major
D	Pilgrims Way N		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	6.45		✓	2.80	250.0	✓	5.00
C	6.45		✓	2.60	160.0	✓	11.00

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)	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	One lane plus flare		10.00	7.25	5.30	4.00	3.50		2.00	35	19
D	One lane	3.00								35	65

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	766	-	-	-	-	-	-	0.291	0.416	0.291	-	-	-
1	B-A	487	0.087	0.220	0.220	-	-	-	0.138	0.314	-	0.220	0.220	0.110
1	B-C	722	0.108	0.274	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	566	0.101	0.255	0.255	-	-	-	0.161	0.365	0.161	-	-	-
1	B-D, offside lane	487	0.087	0.220	0.220	-	-	-	0.138	0.314	0.138	-	-	-
1	C-B	696	0.264	0.264	0.378	-	-	-	-	-	-	-	-	-
1	D-A	665	-	-	-	-	-	-	0.253	-	0.100	-	-	-
1	D-B, nearside lane	521	0.148	0.148	0.336	-	-	-	0.235	0.235	0.093	-	-	-
1	D-B, offside lane	521	0.148	0.148	0.336	-	-	-	0.235	0.235	0.093	-	-	-
1	D-C	521	-	0.148	0.336	0.118	0.235	0.235	0.235	0.235	0.093	-	-	-

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)	Run automatically
D1	Base 2031	AM	ONE HOUR	07:30	09:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	803	100.000
B		ONE HOUR	✓	186	100.000
C		ONE HOUR	✓	725	100.000
D		ONE HOUR	✓	8	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	63	740	0
	B	36	0	149	1
	C	583	142	0	0
	D	5	2	1	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.08	0.92	0.00
	B	0.19	0.00	0.80	0.01
	C	0.80	0.20	0.00	0.00
	D	0.63	0.25	0.13	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	17	7	0
	B	35	0	8	0
	C	7	6	0	0
	D	100	0	0	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.166	1.070	1.000
	B	1.350	1.000	1.080	1.000
	C	1.070	1.060	1.000	1.000
	D	2.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A	605	605
	B	140	140
	C	546	546
	D	6	6
07:45-08:00	A	722	722
	B	167	167
	C	652	652
	D	7	7
08:00-08:15	A	884	884
	B	205	205
	C	798	798
	D	9	9
08:15-08:30	A	884	884
	B	205	205
	C	798	798
	D	9	9
08:30-08:45	A	722	722
	B	167	167
	C	652	652
	D	7	7
08:45-09:00	A	605	605
	B	140	140
	C	546	546
	D	6	6

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	0.36	13.46	0.6	B	137	206
B-AD	0.25	40.63	0.4	E	33	50
A-BCD	0.00	0.00	0.0	A	0	0
A-B					58	87
A-C					679	1019
D-ABC	0.03	17.38	0.0	C	7	11
C-ABD	0.34	12.48	0.5	B	130	195
C-D					0	0
C-A					535	802

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	113	28	547	0.206	111	0.0	0.3	8.893	A
B-AD	27	7	264	0.104	27	0.0	0.2	20.326	C
A-BCD	0	0	1257	0.000	0	0.0	0.0	0.000	A
A-B	47	12			47				
A-C	557	139			557				
D-ABC	6	2	417	0.014	6	0.0	0.0	12.736	B
C-ABD	107	27	536	0.199	106	0.0	0.3	8.853	A
C-D	0	0			0				
C-A	439	110			439				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	134	34	511	0.263	134	0.3	0.4	10.311	B
B-AD	33	8	220	0.149	32	0.2	0.2	25.701	D
A-BCD	0	0	1186	0.000	0	0.0	0.0	0.000	A
A-B	57	14			57				
A-C	665	166			665				
D-ABC	7	2	375	0.019	7	0.0	0.0	14.247	B
C-ABD	128	32	505	0.253	127	0.3	0.4	10.095	B
C-D	0	0			0				
C-A	524	131			524				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	165	41	454	0.363	164	0.4	0.6	13.343	B
B-AD	40	10	159	0.251	39	0.2	0.4	40.063	E
A-BCD	0	0	1087	0.000	0	0.0	0.0	0.000	A
A-B	69	17			69				
A-C	815	204			815				
D-ABC	9	2	310	0.028	9	0.0	0.0	17.359	C
C-ABD	156	39	462	0.338	156	0.4	0.5	12.424	B
C-D	0	0			0				
C-A	642	160			642				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	165	41	453	0.363	165	0.6	0.6	13.461	B
B-AD	40	10	159	0.252	40	0.4	0.4	40.633	E
A-BCD	0	0	1087	0.000	0	0.0	0.0	0.000	A
A-B	69	17			69				
A-C	815	204			815				
D-ABC	9	2	310	0.028	9	0.0	0.0	17.381	C
C-ABD	156	39	462	0.338	156	0.5	0.5	12.480	B
C-D	0	0			0				
C-A	642	160			642				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	134	34	510	0.264	135	0.6	0.4	10.410	B
B-AD	33	8	220	0.149	34	0.4	0.2	26.044	D
A-BCD	0	0	1185	0.000	0	0.0	0.0	0.000	A
A-B	57	14			57				
A-C	665	166			665				
D-ABC	7	2	374	0.019	7	0.0	0.0	14.268	B
C-ABD	128	32	505	0.253	128	0.5	0.4	10.154	B
C-D	0	0			0				
C-A	524	131			524				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	113	28	547	0.206	113	0.4	0.3	8.970	A
B-AD	27	7	264	0.104	28	0.2	0.2	20.520	C
A-BCD	0	0	1256	0.000	0	0.0	0.0	0.000	A
A-B	47	12			47				
A-C	557	139			557				
D-ABC	6	2	417	0.014	6	0.0	0.0	12.756	B
C-ABD	107	27	536	0.199	107	0.4	0.3	8.912	A
C-D	0	0			0				
C-A	439	110			439				

J1 Ashford Road/Ham Lane/Pilgrims Way - Base 2031, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	3.11	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base 2031	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	581	100.000
B		ONE HOUR	✓	212	100.000
C		ONE HOUR	✓	874	100.000
D		ONE HOUR	✓	5	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	25	555	1
	B	49	0	162	1
	C	715	159	0	0
	D	4	0	1	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.04	0.96	0.00
	B	0.23	0.00	0.76	0.00
	C	0.82	0.18	0.00	0.00
	D	0.80	0.00	0.20	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	3	0
	B	5	0	3	0
	C	1	12	0	0
	D	0	0	0	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.000	1.030	1.000
	B	1.050	1.000	1.030	1.000
	C	1.010	1.120	1.000	1.000
	D	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:30-16:45	A	437	437
	B	160	160
	C	658	658
	D	4	4
16:45-17:00	A	522	522
	B	191	191
	C	786	786
	D	4	4
17:00-17:15	A	640	640
	B	233	233
	C	962	962
	D	6	6
17:15-17:30	A	640	640
	B	233	233
	C	962	962
	D	6	6
17:30-17:45	A	522	522
	B	191	191
	C	786	786
	D	4	4
17:45-18:00	A	437	437
	B	160	160
	C	658	658
	D	4	4

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	0.36	11.53	0.6	B	149	224
B-AD	0.30	29.29	0.4	D	45	68
A-BCD	0.00	7.79	0.0	A	0.92	1
A-B					23	34
A-C					509	764
D-ABC	0.02	11.03	0.0	B	5	7
C-ABD	0.33	11.47	0.6	B	146	219
C-D					0	0
C-A					656	984

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	122	31	581	0.211	121	0.0	0.3	8.043	A
B-AD	37	9	282	0.132	37	0.0	0.2	15.367	C
A-BCD	0.75	0.19	559	0.001	0.75	0.0	0.0	6.443	A
A-B	19	5			19				
A-C	418	104			418				
D-ABC	4	0.94	444	0.008	4	0.0	0.0	8.171	A
C-ABD	120	30	580	0.206	119	0.0	0.3	8.717	A
C-D	0	0			0				
C-A	538	135			538				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	146	37	551	0.266	146	0.3	0.4	9.153	A
B-AD	44	11	241	0.185	44	0.2	0.2	19.219	C
A-BCD	0.90	0.22	519	0.002	0.90	0.0	0.0	6.949	A
A-B	22	6			22				
A-C	499	125			499				
D-ABC	4	1	401	0.011	4	0.0	0.0	9.077	A
C-ABD	143	36	558	0.256	143	0.3	0.4	9.707	A
C-D	0	0			0				
C-A	643	161			643				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	179	45	501	0.357	178	0.4	0.6	11.444	B
B-AD	54	14	183	0.296	54	0.2	0.4	28.931	D
A-BCD	1	0.28	463	0.002	1	0.0	0.0	7.788	A
A-B	28	7			28				
A-C	611	153			611				
D-ABC	6	1	332	0.017	5	0.0	0.0	11.020	B
C-ABD	175	44	526	0.333	174	0.4	0.5	11.430	B
C-D	0	0			0				
C-A	787	197			787				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	179	45	501	0.358	179	0.6	0.6	11.528	B
B-AD	54	14	183	0.297	54	0.4	0.4	29.293	D
A-BCD	1	0.28	463	0.002	1	0.0	0.0	7.792	A
A-B	28	7			28				
A-C	611	153			611				
D-ABC	6	1	332	0.017	6	0.0	0.0	11.033	B
C-ABD	175	44	526	0.333	175	0.5	0.6	11.470	B
C-D	0	0			0				
C-A	787	197			787				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	146	37	550	0.266	147	0.6	0.4	9.226	A
B-AD	44	11	240	0.185	45	0.4	0.2	19.423	C
A-BCD	0.90	0.22	518	0.002	0.90	0.0	0.0	6.955	A
A-B	22	6			22				
A-C	499	125			499				
D-ABC	4	1	401	0.011	5	0.0	0.0	9.088	A
C-ABD	143	36	558	0.256	144	0.6	0.4	9.755	A
C-D	0	0			0				
C-A	643	161			643				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	122	31	581	0.211	123	0.4	0.3	8.106	A
B-AD	37	9	281	0.132	38	0.2	0.2	15.513	C
A-BCD	0.75	0.19	559	0.001	0.75	0.0	0.0	6.453	A
A-B	19	5			19				
A-C	418	104			418				
D-ABC	4	0.94	444	0.008	4	0.0	0.0	8.180	A
C-ABD	120	30	580	0.206	120	0.4	0.3	8.774	A
C-D	0	0			0				
C-A	538	135			538				

J1 Ashford Road/Ham Lane/Pilgrims Way - Option 1 Base 2031 + Dev , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	9999999999.00	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Option 1 Base 2031 + Dev	AM	ONE HOUR	07:30	09:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1211	100.000
B		ONE HOUR	✓	816	100.000
C		ONE HOUR	✓	1004	100.000
D		ONE HOUR	✓	8	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	121	1090	0
	B	193	0	622	1
	C	687	317	0	0
	D	5	2	1	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.10	0.90	0.00
	B	0.24	0.00	0.76	0.00
	C	0.68	0.32	0.00	0.00
	D	0.63	0.25	0.13	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	17	7	0
	B	35	0	8	0
	C	7	6	0	0
	D	100	0	0	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.166	1.070	1.000
	B	1.350	1.000	1.080	1.000
	C	1.070	1.060	1.000	1.000
	D	2.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A	912	912
	B	614	614
	C	756	756
	D	6	6
07:45-08:00	A	1089	1089
	B	734	734
	C	903	903
	D	7	7
08:00-08:15	A	1333	1333
	B	898	898
	C	1105	1105
	D	9	9
08:15-08:30	A	1333	1333
	B	898	898
	C	1105	1105
	D	9	9
08:30-08:45	A	1089	1089
	B	734	734
	C	903	903
	D	7	7
08:45-09:00	A	912	912
	B	614	614
	C	756	756
	D	6	6

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	9999999999.00	7171.49	610.8	F	572	858
B-AD	9999999999.00	7216.86	190.1	F	177	266
A-BCD	0.00	0.00	0.0	A	0	0
A-B					111	167
A-C					1000	1500
D-ABC	9999999999.00	9999999999.00	9.5	F	7	11
C-ABD	1.02	128.00	26.3	F	547	820
C-D					0	0
C-A					375	562

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	469	117	308	1.525	300	0.0	42.3	307.848	F
B-AD	145	36	95	1.525	87	0.0	14.5	397.623	F
A-BCD	0	0	1093	0.000	0	0.0	0.0	0.000	A
A-B	91	23			91				
A-C	821	205			821				
D-ABC	6	2	271	0.022	6	0.0	0.0	9999999999.000	F
C-ABD	239	60	455	0.525	234	0.0	1.1	16.957	C
C-D	0	0			0				
C-A	517	129			517				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	560	140	217	2.584	217	42.3	128.1	3115.830	F
B-AD	174	43	69	2.520	69	14.5	40.8	3299.403	F
A-BCD	0	0	986	0.000	0	0.0	0.0	0.000	A
A-B	109	27			109				
A-C	980	245			980				
D-ABC	7	2	0	9999999999.000	0.40	0.0	1.8	9999999999.000	F
C-ABD	295	74	423	0.699	291	1.1	2.3	28.006	D
C-D	0	0			0				
C-A	607	152			607				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	686	171	0	9999999999.000	0	128.1	299.6	2952.524	F
B-AD	212	53	0	9999999999.000	0	40.8	93.9	2997.434	F
A-BCD	0	0	841	0.000	0	0.0	0.0	0.000	A
A-B	133	33			133				
A-C	1200	300			1200				
D-ABC	9	2	0	9999999999.000	0.13	1.8	4.0	9999999999.000	F
C-ABD	1105	276	1086	1.018	1061	2.3	13.5	50.261	F
C-D	0	0			0				
C-A	0	0			0				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	686	171	0	9999999999.000	0	299.6	471.1	3835.709	F
B-AD	212	53	0	9999999999.000	0	93.9	147.0	3871.645	F
A-BCD	0	0	811	0.000	0	0.0	0.0	0.000	A
A-B	133	33			133				
A-C	1200	300			1200				
D-ABC	9	2	0	9999999999.000	0.06	4.0	6.2	9999999999.000	F
C-ABD	1105	276	1087	1.017	1054	13.5	26.3	83.142	F
C-D	0	0			0				
C-A	0	0			0				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	560	140	174	3.221	174	471.1	567.6	6694.966	F
B-AD	174	43	54	3.203	54	147.0	176.9	6747.526	F
A-BCD	0	0	917	0.000	0	0.0	0.0	0.000	A
A-B	109	27			109				
A-C	980	245			980				
D-ABC	7	2	0	9999999999.000	0.03	6.2	8.0	9999999999.000	F
C-ABD	295	74	425	0.695	388	26.3	3.2	128.000	F
C-D	0	0			0				
C-A	607	152			607				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	469	117	296	1.583	296	567.6	610.8	7171.490	F
B-AD	145	36	92	1.575	92	176.9	190.1	7216.862	F
A-BCD	0	0	1082	0.000	0	0.0	0.0	0.000	A
A-B	91	23			91				
A-C	821	205			821				
D-ABC	6	2	0	9999999999.000	0.02	8.0	9.5	9999999999.000	F
C-ABD	239	60	455	0.525	247	3.2	1.2	18.934	C
C-D	0	0			0				
C-A	517	129			517				

J1 Ashford Road/Ham Lane/Pilgrims Way - Option 1 Base 2031 + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	9999999999.00	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	Option 1 Base 2031 + Dev	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	863	100.000
B		ONE HOUR	✓	544	100.000
C		ONE HOUR	✓	1515	100.000
D		ONE HOUR	✓	5	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	158	704	1
	B	132	0	411	1
	C	955	560	0	0
	D	4	0	1	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.18	0.82	0.00
	B	0.24	0.00	0.76	0.00
	C	0.63	0.37	0.00	0.00
	D	0.80	0.00	0.20	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	3	0
	B	5	0	3	0
	C	1	12	0	0
	D	0	0	0	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.000	1.030	1.000
	B	1.050	1.000	1.030	1.000
	C	1.010	1.120	1.000	1.000
	D	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:30-16:45	A	650	650
	B	410	410
	C	1141	1141
	D	4	4
16:45-17:00	A	776	776
	B	489	489
	C	1362	1362
	D	4	4
17:00-17:15	A	950	950
	B	599	599
	C	1668	1668
	D	6	6
17:15-17:30	A	950	950
	B	599	599
	C	1668	1668
	D	6	6
17:30-17:45	A	776	776
	B	489	489
	C	1362	1362
	D	4	4
17:45-18:00	A	650	650
	B	410	410
	C	1141	1141
	D	4	4

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	9999999999.00	9999999999.00	459.0	F	378	567
B-AD	9999999999.00	9999999999.00	148.5	F	121	182
A-BCD	9999999999.00	9999999999.00	194.0	F	130	195
A-B					121	182
A-C					541	811
D-ABC	9999999999.00	9999999999.00	6.0	F	5	7
C-ABD	1.39	1253.35	333.6	F	1282	1923
C-D					0	0
C-A					108	163

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	310	78	324	0.956	282	0.0	6.9	9999999999.000	F
B-AD	99	25	103	0.966	83	0.0	4.2	9999999999.000	F
A-BCD	0.75	0.19	381	0.002	0.75	0.0	0.0	9999999999.000	F
A-B	119	30			119				
A-C	530	133			530				
D-ABC	4	0.94	257	0.015	4	0.0	0.0	9999999999.000	F
C-ABD	490	123	609	0.805	473	0.0	4.2	27.070	D
C-D	0	0			0				
C-A	650	163			650				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	370	93	150	2.462	150	6.9	62.1	9999999999.000	F
B-AD	119	30	51	2.316	51	4.2	21.3	9999999999.000	F
A-BCD	0.90	0.22	300	0.003	0.89	0.0	0.0	9999999999.000	F
A-B	142	36			142				
A-C	633	158			633				
D-ABC	4	1	0	9999999999.000	0	0.0	1.1	9999999999.000	F
C-ABD	1362	340	1345	1.013	1295	4.2	20.9	50.959	F
C-D	0	0			0				
C-A	0	0			0				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	454	113	0	9999999999.000	0	62.1	175.5	9999999999.000	F
B-AD	145	36	0	9999999999.000	0	21.3	57.6	9999999999.000	F
A-BCD	1	0.28	175	0.006	1	0.0	0.0	9999999999.000	F
A-B	174	43			174				
A-C	775	194			775				
D-ABC	6	1	0	9999999999.000	0	1.1	2.5	9999999999.000	F
C-ABD	1668	417	1202	1.387	1201	20.9	137.7	245.897	F
C-D	0	0			0				
C-A	0	0			0				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	454	113	0	9999999999.000	0	175.5	288.9	9999999999.000	F
B-AD	145	36	0	9999999999.000	0	57.6	93.9	9999999999.000	F
A-BCD	1	0.28	18	0.061	0.92	0.0	0.1	9999999999.000	F
A-B	174	43			174				
A-C	775	194			775				
D-ABC	6	1	0	9999999999.000	0	2.5	3.9	9999999999.000	F
C-ABD	1668	417	1202	1.387	1202	137.7	254.3	570.150	F
C-D	0	0			0				
C-A	0	0			0				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	370	93	0	9999999999.000	0	288.9	381.5	9999999999.000	F
B-AD	119	30	0	9999999999.000	0	93.9	123.6	9999999999.000	F
A-BCD	776	194	0	9999999999.000	0	0.1	194.0	9999999999.000	F
A-B	0	0			0				
A-C	0	0			0				
D-ABC	4	1	0	9999999999.000	0	3.9	5.0	9999999999.000	F
C-ABD	1362	340	1327	1.026	1324	254.3	263.9	856.919	F
C-D	0	0			0				
C-A	0	0			0				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	310	78	0	9999999999.000	0	381.5	459.0	9999999999.000	F
B-AD	99	25	0	9999999999.000	0	123.6	148.5	9999999999.000	F
A-BCD	0.75	0.19	26	0.029	26	194.0	187.6	9999999999.000	F
A-B	119	30			119				
A-C	530	133			530				
D-ABC	4	0.94	0	9999999999.000	0	5.0	6.0	9999999999.000	F
C-ABD	1141	285	862	1.323	862	263.9	333.6	1253.345	F
C-D	0	0			0				
C-A	0	0			0				

J1 Ashford Road/Ham Lane/Pilgrims Way - Option 2 Base 2031 + Dev , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	9999999999.00	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Option 2 Base 2031 + Dev	AM	ONE HOUR	07:30	09:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1396	100.000
B		ONE HOUR	✓	428	100.000
C		ONE HOUR	✓	1004	100.000
D		ONE HOUR	✓	8	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	86	1310	0
	B	96	0	331	1
	C	794	210	0	0
	D	5	2	1	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.06	0.94	0.00
	B	0.22	0.00	0.77	0.00
	C	0.79	0.21	0.00	0.00
	D	0.63	0.25	0.13	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	17	7	0
	B	35	0	8	0
	C	7	6	0	0
	D	100	0	0	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.166	1.070	1.000
	B	1.350	1.000	1.080	1.000
	C	1.070	1.060	1.000	1.000
	D	2.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A	1051	1051
	B	322	322
	C	756	756
	D	6	6
07:45-08:00	A	1255	1255
	B	385	385
	C	903	903
	D	7	7
08:00-08:15	A	1537	1537
	B	471	471
	C	1105	1105
	D	9	9
08:15-08:30	A	1537	1537
	B	471	471
	C	1105	1105
	D	9	9
08:30-08:45	A	1255	1255
	B	385	385
	C	903	903
	D	7	7
08:45-09:00	A	1051	1051
	B	322	322
	C	756	756
	D	6	6

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	9999999999.00	3474.72	251.6	F	305	457
B-AD	9999999999.00	3540.82	73.8	F	88	132
A-BCD	0.00	0.00	0.0	A	0	0
A-B					79	118
A-C					1202	1803
D-ABC	9999999999.00	9999999999.00	7.8	F	7	11
C-ABD	0.80	48.88	4.2	E	215	323
C-D					0	0
C-A					706	1059

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	250	62	346	0.723	240	0.0	2.5	34.259	D
B-AD	72	18	112	0.649	65	0.0	1.9	93.928	F
A-BCD	0	0	1114	0.000	0	0.0	0.0	0.000	A
A-B	65	16			65				
A-C	986	247			986				
D-ABC	6	2	285	0.021	6	0.0	0.0	9999999999.000	F
C-ABD	158	40	418	0.378	156	0.0	0.6	14.415	B
C-D	0	0			0				
C-A	598	149			598				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	298	75	173	1.729	170	2.5	34.6	1275.936	F
B-AD	86	22	53	1.643	49	1.9	11.2	1564.274	F
A-BCD	0	0	1014	0.000	0	0.0	0.0	0.000	A
A-B	77	19			77				
A-C	1178	294			1178				
D-ABC	7	2	172	0.042	7	0.0	0.1	9999999999.000	F
C-ABD	189	47	365	0.519	187	0.6	1.1	21.278	C
C-D	0	0			0				
C-A	713	178			713				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	366	91	0	9999999999.000	0	34.6	126.0	1299.872	F
B-AD	106	26	0	9999999999.000	0	11.2	37.6	1331.439	F
A-BCD	0	0	876	0.000	0	0.0	0.0	0.000	A
A-B	95	24			95				
A-C	1442	361			1442				
D-ABC	9	2	0	9999999999.000	0	0.1	2.3	9999999999.000	F
C-ABD	299	75	374	0.799	289	1.1	3.7	41.347	E
C-D	0	0			0				
C-A	806	202			806				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	366	91	0	9999999999.000	0	126.0	217.3	1469.882	F
B-AD	106	26	0	9999999999.000	0	37.6	64.0	1492.136	F
A-BCD	0	0	868	0.000	0	0.0	0.0	0.000	A
A-B	95	24			95				
A-C	1442	361			1442				
D-ABC	9	2	0	9999999999.000	0	2.3	4.5	9999999999.000	F
C-ABD	299	75	374	0.799	297	3.7	4.2	48.878	E
C-D	0	0			0				
C-A	806	202			806				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	298	75	161	1.851	161	217.3	251.6	3474.723	F
B-AD	86	22	47	1.825	47	64.0	73.8	3540.816	F
A-BCD	0	0	1002	0.000	0	0.0	0.0	0.000	A
A-B	77	19			77				
A-C	1178	294			1178				
D-ABC	7	2	0	9999999999.000	0	4.5	6.3	9999999999.000	F
C-ABD	189	47	365	0.518	201	4.2	1.2	24.876	C
C-D	0	0			0				
C-A	713	178			713				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	250	62	273	0.915	272	251.6	246.1	3293.881	F
B-AD	72	18	80	0.905	78	73.8	72.2	3351.314	F
A-BCD	0	0	1110	0.000	0	0.0	0.0	0.000	A
A-B	65	16			65				
A-C	986	247			986				
D-ABC	6	2	0	9999999999.000	0	6.3	7.8	9999999999.000	F
C-ABD	158	40	418	0.378	160	1.2	0.7	14.927	B
C-D	0	0			0				
C-A	598	149			598				

J1 Ashford Road/Ham Lane/Pilgrims Way - Option 2 Base 2031 + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	9999999999.00	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Option 2 Base 2031 + Dev	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	935	100.000
B		ONE HOUR	✓	340	100.000
C		ONE HOUR	✓	1515	100.000
D		ONE HOUR	✓	5	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	77	857	1
	B	81	0	258	1
	C	1200	315	0	0
	D	4	0	1	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.08	0.92	0.00
	B	0.24	0.00	0.76	0.00
	C	0.79	0.21	0.00	0.00
	D	0.80	0.00	0.20	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	3	0
	B	5	0	3	0
	C	1	12	0	0
	D	0	0	0	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.000	1.030	1.000
	B	1.050	1.000	1.030	1.000
	C	1.010	1.120	1.000	1.000
	D	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:30-16:45	A	704	704
	B	256	256
	C	1141	1141
	D	4	4
16:45-17:00	A	841	841
	B	306	306
	C	1362	1362
	D	4	4
17:00-17:15	A	1029	1029
	B	374	374
	C	1668	1668
	D	6	6
17:15-17:30	A	1029	1029
	B	374	374
	C	1668	1668
	D	6	6
17:30-17:45	A	841	841
	B	306	306
	C	1362	1362
	D	4	4
17:45-18:00	A	704	704
	B	256	256
	C	1141	1141
	D	4	4

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	9999999999.00	2250.51	166.4	F	238	356
B-AD	9999999999.00	2294.42	53.1	F	74	112
A-BCD	0.00	15.72	0.0	C	0.92	1
A-B					71	106
A-C					786	1180
D-ABC	9999999999.00	9999999999.00	4.9	F	5	7
C-ABD	0.82	35.11	5.6	E	341	512
C-D					0	0
C-A					1049	1573

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	195	49	461	0.422	192	0.0	0.7	13.622	B
B-AD	61	15	137	0.446	58	0.0	0.8	46.181	E
A-BCD	0.75	0.19	404	0.002	0.75	0.0	0.0	8.918	A
A-B	58	14			58				
A-C	645	161			645				
D-ABC	4	0.94	266	0.014	4	0.0	0.0	9999999999.000	F
C-ABD	237	59	510	0.465	234	0.0	0.9	14.398	B
C-D	0	0			0				
C-A	903	226			903				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	233	58	201	1.157	187	0.7	12.1	469.793	F
B-AD	73	18	65	1.124	56	0.8	5.1	678.887	F
A-BCD	0.90	0.22	333	0.003	0.90	0.0	0.0	10.850	B
A-B	69	17			69				
A-C	770	193			770				
D-ABC	4	1	87	0.052	4	0.0	0.1	9999999999.000	F
C-ABD	287	72	481	0.598	285	0.9	1.6	20.310	C
C-D	0	0			0				
C-A	1075	269			1075				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	285	71	0	9999999999.000	0	12.1	83.4	595.661	F
B-AD	89	22	0	9999999999.000	0	5.1	27.4	592.847	F
A-BCD	1	0.28	235	0.005	1	0.0	0.0	15.414	C
A-B	85	21			85				
A-C	944	236			944				
D-ABC	6	1	0	9999999999.000	0	0.1	1.4	9999999999.000	F
C-ABD	499	125	616	0.810	486	1.6	4.8	30.040	D
C-D	0	0			0				
C-A	1169	292			1169				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	285	71	0	9999999999.000	0	83.4	154.7	573.054	F
B-AD	89	22	0	9999999999.000	0	27.4	49.7	566.758	F
A-BCD	1	0.28	230	0.005	1	0.0	0.0	15.719	C
A-B	85	21			85				
A-C	944	236			944				
D-ABC	6	1	0	9999999999.000	0	1.4	2.8	9999999999.000	F
C-ABD	499	125	609	0.819	496	4.8	5.6	35.107	E
C-D	0	0			0				
C-A	1169	292			1169				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	233	58	186	1.252	186	154.7	166.4	2250.513	F
B-AD	73	18	59	1.228	59	49.7	53.1	2294.421	F
A-BCD	0.90	0.22	326	0.003	0.91	0.0	0.0	11.078	B
A-B	69	17			69				
A-C	770	193			770				
D-ABC	4	1	0	9999999999.000	0	2.8	3.9	9999999999.000	F
C-ABD	287	72	471	0.610	302	5.6	1.8	24.497	C
C-D	0	0			0				
C-A	1075	269			1075				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	195	49	307	0.634	305	166.4	138.8	1799.817	F
B-AD	61	15	98	0.625	96	53.1	44.4	1837.349	F
A-BCD	0.75	0.19	401	0.002	0.76	0.0	0.0	8.986	A
A-B	58	14			58				
A-C	645	161			645				
D-ABC	4	0.94	0	9999999999.000	0	3.9	4.9	9999999999.000	F
C-ABD	237	59	510	0.466	241	1.8	1.0	15.128	C
C-D	0	0			0				
C-A	903	226			903				

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.1.4646 []
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Filename: J1 Ashford Road Ham Lane Pilgrims Way.j9
Path: P:\Southampton\ITW\Projects\344395 Maidstone BC Transport Planning\Lenham TMS April 2016\Priority options\J1 Ashford Road Ham Lane Pilgrims Way
Report generation date: 04/05/2016 12:57:27

»J1 Ashford Road/Ham Lane/Pilgrims Way - Option 1 Base 2031 + Dev , AM
»J1 Ashford Road/Ham Lane/Pilgrims Way - Option 1 Base 2031 + Dev, PM
»J1 Ashford Road/Ham Lane/Pilgrims Way - Option 2 Base 2031 + Dev , AM
»J1 Ashford Road/Ham Lane/Pilgrims Way - Option 2 Base 2031 + Dev, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	J1 Ashford Road/Ham Lane/Pilgrims Way - Option 1 Base 2031 + Dev							
Stream B-CD	551.9	5545.96	9999999999.00	F	443.6	9999999999.00	9999999999.00	F
Stream B-AD	172.0	5585.90	9999999999.00	F	143.2	9999999999.00	9999999999.00	F
Stream A-BCD	0.0	0.00	0.00	A	0.0	30.97	0.01	D
Stream D-AB	8.4	9999999999.00	9999999999.00	F	3.9	9999999999.00	9999999999.00	F
Stream D-BC	1.2	9999999999.00	9999999999.00	F	1.0	9999999999.00	9999999999.00	F
Stream C-ABD	7.8	63.80	0.91	F	158.7	854.56	1.25	F
	J1 Ashford Road/Ham Lane/Pilgrims Way - Option 2 Base 2031 + Dev							
Stream B-CD	227.6	2746.42	9999999999.00	F	146.0	1782.72	9999999999.00	F
Stream B-AD	67.1	2806.36	9999999999.00	F	47.8	1824.23	9999999999.00	F
Stream A-BCD	0.0	0.00	0.00	A	0.0	13.73	0.00	B
Stream D-AB	6.8	9999999999.00	9999999999.00	F	3.9	9999999999.00	9999999999.00	F
Stream D-BC	1.0	9999999999.00	9999999999.00	F	1.0	9999999999.00	9999999999.00	F
Stream C-ABD	2.4	38.76	0.71	E	3.0	31.66	0.74	D

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

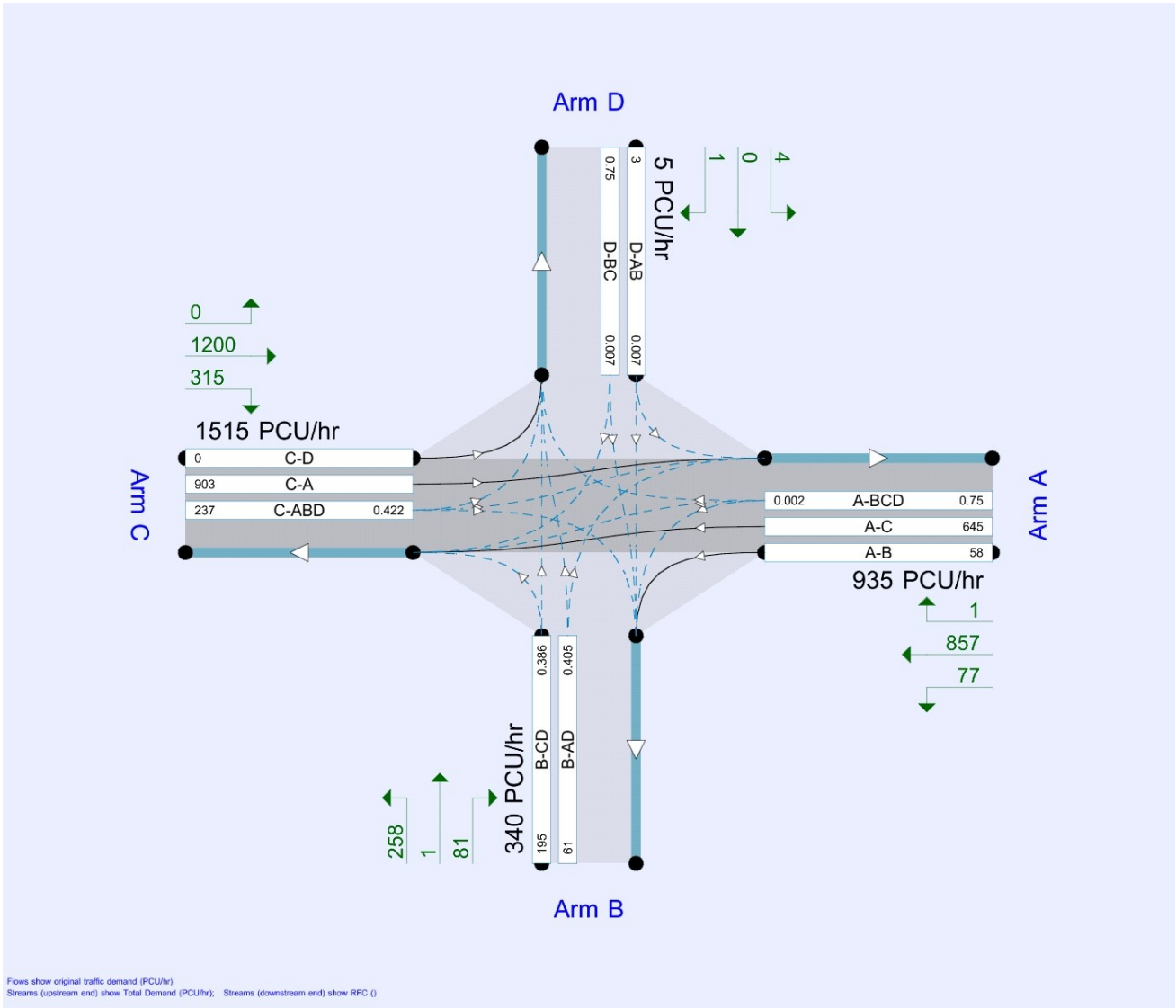
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	30/06/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MOTTMAC\rap67683
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	PCU	PCU	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	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Option 1 Base 2031 + Dev	AM	ONE HOUR	07:30	09:00	15	✓
D2	Option 1 Base 2031 + Dev	PM	ONE HOUR	16:30	18:00	15	✓
D3	Option 2 Base 2031 + Dev	AM	ONE HOUR	07:30	09:00	15	✓
D4	Option 2 Base 2031 + Dev	PM	ONE HOUR	16:30	18:00	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	J1 Ashford Road/Ham Lane/Pilgrims Way	✓	100.000	100.000

J1 Ashford Road/Ham Lane/Pilgrims Way - Option 1 Base 2031 + Dev , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	9999999999.00	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Ashford Road E		Major
B	Ham Lane S		Minor
C	Ashford Road W		Major
D	Pilgrims Way N		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	7.00		✓	3.50	250.0	✓	10.00
C	7.00		✓	3.50	160.0	✓	20.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	10.00	7.00	6.00	6.00		4.00	35	19
D	One lane plus flare	10.00	5.00	3.00	2.50	2.50		1.00	35	65

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	820	-	-	-	-	-	-	0.304	0.434	0.304	-	-	-
1	B-A	497	0.087	0.219	0.219	-	-	-	0.138	0.313	-	0.219	0.219	0.109
1	B-C	752	0.110	0.279	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	590	0.103	0.260	0.260	-	-	-	0.163	0.371	0.163	-	-	-
1	B-D, offside lane	497	0.087	0.219	0.219	-	-	-	0.138	0.313	0.138	-	-	-
1	C-B	761	0.282	0.282	0.403	-	-	-	-	-	-	-	-	-
1	D-A	680	-	-	-	-	-	-	0.252	-	0.100	-	-	-
1	D-B, nearside lane	533	0.148	0.148	0.335	-	-	-	0.235	0.235	0.093	-	-	-
1	D-B, offside lane	544	0.151	0.151	0.342	-	-	-	0.239	0.239	0.095	-	-	-
1	D-C	544	-	0.151	0.342	0.120	0.239	0.239	0.239	0.239	0.095	-	-	-

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)	Run automatically
D1	Option 1 Base 2031 + Dev	AM	ONE HOUR	07:30	09:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1211	100.000
B		ONE HOUR	✓	816	100.000
C		ONE HOUR	✓	1004	100.000
D		ONE HOUR	✓	8	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	121	1090	0
	B	193	0	622	1
	C	687	317	0	0
	D	5	2	1	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.10	0.90	0.00
	B	0.24	0.00	0.76	0.00
	C	0.68	0.32	0.00	0.00
	D	0.63	0.25	0.13	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	17	7	0
	B	35	0	8	0
	C	7	6	0	0
	D	100	0	0	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.166	1.070	1.000
	B	1.350	1.000	1.080	1.000
	C	1.070	1.060	1.000	1.000
	D	2.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A	912	912
	B	614	614
	C	756	756
	D	6	6
07:45-08:00	A	1089	1089
	B	734	734
	C	903	903
	D	7	7
08:00-08:15	A	1333	1333
	B	898	898
	C	1105	1105
	D	9	9
08:15-08:30	A	1333	1333
	B	898	898
	C	1105	1105
	D	9	9
08:30-08:45	A	1089	1089
	B	734	734
	C	903	903
	D	7	7
08:45-09:00	A	912	912
	B	614	614
	C	756	756
	D	6	6

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	9999999999.00	5545.96	551.9	F	572	858
B-AD	9999999999.00	5585.90	172.0	F	177	266
A-BCD	0.00	0.00	0.0	A	0	0
A-B					111	167
A-C					1000	1500
D-AB	9999999999.00	9999999999.00	8.4	F	6	9
D-BC	9999999999.00	9999999999.00	1.2	F	1	2
C-ABD	0.91	63.80	7.8	F	327	490
C-D					0	0
C-A					594	892

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	469	117	365	1.286	352	0.0	29.3	182.103	F
B-AD	145	36	113	1.286	101	0.0	11.1	268.902	F
A-BCD	0	0	1185	0.000	0	0.0	0.0	0.000	A
A-B	91	23			91				
A-C	821	205			821				
D-AB	5	1	439	0.010	4	0.0	0.0	9999999999.000	F
D-BC	2	0.38	147	0.010	1	0.0	0.0	9999999999.000	F
C-ABD	239	60	504	0.474	235	0.0	0.9	14.009	B
C-D	0	0			0				
C-A	517	129			517				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	560	140	264	2.123	264	29.3	103.4	2217.230	F
B-AD	174	43	85	2.043	84	11.1	33.4	2411.504	F
A-BCD	0	0	1074	0.000	0	0.0	0.0	0.000	A
A-B	109	27			109				
A-C	980	245			980				
D-AB	6	2	0	9999999999.000	0.25	0.0	1.7	9999999999.000	F
D-BC	0.90	0.22	0	9999999999.000	0.27	0.0	0.2	9999999999.000	F
C-ABD	285	71	454	0.628	282	0.9	1.7	21.795	C
C-D	0	0			0				
C-A	618	154			618				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	686	171	13	53.124	13	103.4	271.7	3980.857	F
B-AD	212	53	4	52.270	4	33.4	85.5	4050.648	F
A-BCD	0	0	923	0.000	0	0.0	0.0	0.000	A
A-B	133	33			133				
A-C	1200	300			1200				
D-AB	8	2	0	9999999999.000	0.07	1.7	3.6	9999999999.000	F
D-BC	1	0.28	0	9999999999.000	0.14	0.2	0.5	9999999999.000	F
C-ABD	457	114	504	0.907	439	1.7	6.3	48.314	E
C-D	0	0			0				
C-A	648	162			648				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	686	171	0	9999999999.000	0	271.7	443.2	2530.478	F
B-AD	212	53	0	9999999999.000	0	85.5	138.7	2554.108	F
A-BCD	0	0	908	0.000	0	0.0	0.0	0.000	A
A-B	133	33			133				
A-C	1200	300			1200				
D-AB	8	2	0	9999999999.000	0.03	3.6	5.5	9999999999.000	F
D-BC	1	0.28	0	9999999999.000	0.07	0.5	0.8	9999999999.000	F
C-ABD	457	114	504	0.907	451	6.3	7.8	63.798	F
C-D	0	0			0				
C-A	648	162			648				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	560	140	245	2.285	245	443.2	521.9	5254.336	F
B-AD	174	43	77	2.268	76	138.7	162.9	5302.122	F
A-BCD	0	0	1051	0.000	0	0.0	0.0	0.000	A
A-B	109	27			109				
A-C	980	245			980				
D-AB	6	2	0	9999999999.000	0.01	5.5	7.1	9999999999.000	F
D-BC	0.90	0.22	0	9999999999.000	0.04	0.8	1.0	9999999999.000	F
C-ABD	285	71	455	0.627	309	7.8	1.9	29.790	D
C-D	0	0			0				
C-A	618	154			618				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	469	117	349	1.343	349	521.9	551.9	5545.956	F
B-AD	145	36	109	1.335	109	162.9	172.0	5585.901	F
A-BCD	0	0	1178	0.000	0	0.0	0.0	0.000	A
A-B	91	23			91				
A-C	821	205			821				
D-AB	5	1	0	9999999999.000	0.01	7.1	8.4	9999999999.000	F
D-BC	0.75	0.19	0	9999999999.000	0.02	1.0	1.2	9999999999.000	F
C-ABD	239	60	504	0.474	242	1.9	1.0	14.792	B
C-D	0	0			0				
C-A	517	129			517				

J1 Ashford Road/Ham Lane/Pilgrims Way - Option 1 Base 2031 + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	9999999999.00	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Option 1 Base 2031 + Dev	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	863	100.000
B		ONE HOUR	✓	544	100.000
C		ONE HOUR	✓	1515	100.000
D		ONE HOUR	✓	5	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	158	704	1
	B	132	0	411	1
	C	955	560	0	0
	D	4	0	1	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.18	0.82	0.00
	B	0.24	0.00	0.76	0.00
	C	0.63	0.37	0.00	0.00
	D	0.80	0.00	0.20	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	3	0
	B	5	0	3	0
	C	1	12	0	0
	D	0	0	0	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.000	1.030	1.000
	B	1.050	1.000	1.030	1.000
	C	1.010	1.120	1.000	1.000
	D	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:30-16:45	A	650	650
	B	410	410
	C	1141	1141
	D	4	4
16:45-17:00	A	776	776
	B	489	489
	C	1362	1362
	D	4	4
17:00-17:15	A	950	950
	B	599	599
	C	1668	1668
	D	6	6
17:15-17:30	A	950	950
	B	599	599
	C	1668	1668
	D	6	6
17:30-17:45	A	776	776
	B	489	489
	C	1362	1362
	D	4	4
17:45-18:00	A	650	650
	B	410	410
	C	1141	1141
	D	4	4

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	9999999999.00	9999999999.00	443.6	F	378	567
B-AD	9999999999.00	9999999999.00	143.2	F	121	182
A-BCD	0.01	30.97	0.0	D	0.92	1
A-B					145	217
A-C					646	969
D-AB	9999999999.00	9999999999.00	3.9	F	4	6
D-BC	9999999999.00	9999999999.00	1.0	F	0.92	1
C-ABD	1.25	854.56	158.7	F	936	1404
C-D					0	0
C-A					454	681

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	310	78	450	0.689	302	0.0	2.1	9999999999.000	F
B-AD	99	25	134	0.745	91	0.0	2.2	9999999999.000	F
A-BCD	0.75	0.19	419	0.002	0.75	0.0	0.0	8.613	A
A-B	119	30			119				
A-C	530	133			530				
D-AB	3	0.75	506	0.006	3	0.0	0.0	9999999999.000	F
D-BC	0.75	0.19	100	0.008	0.72	0.0	0.0	9999999999.000	F
C-ABD	423	106	580	0.730	412	0.0	2.8	22.754	C
C-D	0	0			0				
C-A	717	179			717				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	370	93	194	1.908	192	2.1	46.7	9999999999.000	F
B-AD	119	30	65	1.816	63	2.2	16.0	9999999999.000	F
A-BCD	0.90	0.22	336	0.003	0.90	0.0	0.0	10.744	B
A-B	142	36			142				
A-C	633	158			633				
D-AB	4	0.90	463	0.008	4	0.0	0.0	9999999999.000	F
D-BC	0.90	0.22	13	0.070	0.70	0.0	0.1	9999999999.000	F
C-ABD	716	179	780	0.918	694	2.8	8.3	41.020	E
C-D	0	0			0				
C-A	645	161			645				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	454	113	0	9999999999.000	0	46.7	160.1	9999999999.000	F
B-AD	145	36	0	9999999999.000	0	16.0	52.4	9999999999.000	F
A-BCD	1	0.28	220	0.005	1	0.0	0.0	16.464	C
A-B	174	43			174				
A-C	775	194			775				
D-AB	4	1	0	9999999999.000	0	0.0	1.1	9999999999.000	F
D-BC	1	0.28	0	9999999999.000	0	0.1	0.3	9999999999.000	F
C-ABD	1668	417	1347	1.238	1402	8.3	74.9	146.221	F
C-D	0	0			0				
C-A	0	0			0				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	454	113	0	9999999999.000	0	160.1	273.5	9999999999.000	F
B-AD	145	36	0	9999999999.000	0	52.4	88.7	9999999999.000	F
A-BCD	1	0.28	127	0.009	1	0.0	0.0	28.491	D
A-B	174	43			174				
A-C	775	194			775				
D-AB	4	1	0	9999999999.000	0	1.1	2.2	9999999999.000	F
D-BC	1	0.28	0	9999999999.000	0	0.3	0.6	9999999999.000	F
C-ABD	1668	417	1333	1.251	1333	74.9	158.7	387.930	F
C-D	0	0			0				
C-A	0	0			0				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	370	93	0	9999999999.000	0	273.5	366.1	9999999999.000	F
B-AD	119	30	0	9999999999.000	0	88.7	118.4	9999999999.000	F
A-BCD	0.90	0.22	117	0.008	0.90	0.0	0.0	30.969	D
A-B	142	36			142				
A-C	633	158			633				
D-AB	4	0.90	0	9999999999.000	0	2.2	3.1	9999999999.000	F
D-BC	0.90	0.22	0	9999999999.000	0	0.6	0.8	9999999999.000	F
C-ABD	717	179	753	0.952	802	158.7	137.2	854.556	F
C-D	0	0			0				
C-A	645	161			645				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	310	78	0	9999999999.000	0	366.1	443.6	9999999999.000	F
B-AD	99	25	0	9999999999.000	0	118.4	143.2	9999999999.000	F
A-BCD	0.75	0.19	202	0.004	0.77	0.0	0.0	17.934	C
A-B	119	30			119				
A-C	530	133			530				
D-AB	3	0.75	0	9999999999.000	0	3.1	3.9	9999999999.000	F
D-BC	0.75	0.19	0	9999999999.000	0	0.8	1.0	9999999999.000	F
C-ABD	423	106	569	0.745	562	137.2	102.6	768.156	F
C-D	0	0			0				
C-A	717	179			717				

J1 Ashford Road/Ham Lane/Pilgrims Way - Option 2 Base 2031 + Dev , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	9999999999.00	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Option 2 Base 2031 + Dev	AM	ONE HOUR	07:30	09:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1396	100.000
B		ONE HOUR	✓	428	100.000
C		ONE HOUR	✓	1004	100.000
D		ONE HOUR	✓	8	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	86	1310	0
	B	96	0	331	1
	C	794	210	0	0
	D	5	2	1	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.06	0.94	0.00
	B	0.22	0.00	0.77	0.00
	C	0.79	0.21	0.00	0.00
	D	0.63	0.25	0.13	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	17	7	0
	B	35	0	8	0
	C	7	6	0	0
	D	100	0	0	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.166	1.070	1.000
	B	1.350	1.000	1.080	1.000
	C	1.070	1.060	1.000	1.000
	D	2.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A	1051	1051
	B	322	322
	C	756	756
	D	6	6
07:45-08:00	A	1255	1255
	B	385	385
	C	903	903
	D	7	7
08:00-08:15	A	1537	1537
	B	471	471
	C	1105	1105
	D	9	9
08:15-08:30	A	1537	1537
	B	471	471
	C	1105	1105
	D	9	9
08:30-08:45	A	1255	1255
	B	385	385
	C	903	903
	D	7	7
08:45-09:00	A	1051	1051
	B	322	322
	C	756	756
	D	6	6

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	9999999999.00	2746.42	227.6	F	305	457
B-AD	9999999999.00	2806.36	67.1	F	88	132
A-BCD	0.00	0.00	0.0	A	0	0
A-B					79	118
A-C					1202	1803
D-AB	9999999999.00	9999999999.00	6.8	F	6	9
D-BC	9999999999.00	9999999999.00	1.0	F	1	2
C-ABD	0.71	38.76	2.4	E	193	289
C-D					0	0
C-A					728	1092

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	250	62	404	0.618	243	0.0	1.6	23.291	C
B-AD	72	18	138	0.525	67	0.0	1.3	65.068	F
A-BCD	0	0	1207	0.000	0	0.0	0.0	0.000	A
A-B	65	16			65				
A-C	986	247			986				
D-AB	5	1	414	0.011	4	0.0	0.0	9999999999.000	F
D-BC	2	0.38	170	0.009	1	0.0	0.0	9999999999.000	F
C-ABD	158	40	465	0.340	156	0.0	0.5	12.283	B
C-D	0	0			0				
C-A	598	149			598				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	298	75	221	1.352	214	1.6	22.8	771.379	F
B-AD	86	22	66	1.304	59	1.3	8.1	1018.013	F
A-BCD	0	0	1102	0.000	0	0.0	0.0	0.000	A
A-B	77	19			77				
A-C	1178	294			1178				
D-AB	5	1	342	0.016	5	0.0	0.0	9999999999.000	F
D-BC	2	0.45	89	0.020	2	0.0	0.0	9999999999.000	F
C-ABD	189	47	407	0.464	187	0.5	0.9	17.260	C
C-D	0	0			0				
C-A	714	178			714				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	366	91	0	9999999999.000	0	22.8	114.2	801.875	F
B-AD	106	26	0	9999999999.000	0	8.1	34.5	813.786	F
A-BCD	0	0	959	0.000	0	0.0	0.0	0.000	A
A-B	95	24			95				
A-C	1442	361			1442				
D-AB	8	2	0	9999999999.000	0	0.0	2.0	9999999999.000	F
D-BC	1	0.28	0	9999999999.000	0	0.0	0.3	9999999999.000	F
C-ABD	232	58	329	0.706	227	0.9	2.3	35.632	E
C-D	0	0			0				
C-A	873	218			873				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	366	91	0	9999999999.000	0	114.2	205.6	853.211	F
B-AD	106	26	0	9999999999.000	0	34.5	60.9	857.700	F
A-BCD	0	0	954	0.000	0	0.0	0.0	0.000	A
A-B	95	24			95				
A-C	1442	361			1442				
D-AB	8	2	0	9999999999.000	0	2.0	3.9	9999999999.000	F
D-BC	1	0.28	0	9999999999.000	0	0.3	0.6	9999999999.000	F
C-ABD	232	58	329	0.706	232	2.3	2.4	38.759	E
C-D	0	0			0				
C-A	873	218			873				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	298	75	210	1.420	210	205.6	227.6	2746.415	F
B-AD	86	22	62	1.394	62	60.9	67.1	2806.356	F
A-BCD	0	0	1096	0.000	0	0.0	0.0	0.000	A
A-B	77	19			77				
A-C	1178	294			1178				
D-AB	6	2	0	9999999999.000	0	3.9	5.5	9999999999.000	F
D-BC	0.90	0.22	0	9999999999.000	0	0.6	0.8	9999999999.000	F
C-ABD	189	47	407	0.464	195	2.4	0.9	18.404	C
C-D	0	0			0				
C-A	714	178			714				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	250	62	322	0.776	321	227.6	209.9	2456.054	F
B-AD	72	18	95	0.764	93	67.1	62.0	2507.469	F
A-BCD	0	0	1204	0.000	0	0.0	0.0	0.000	A
A-B	65	16			65				
A-C	986	247			986				
D-AB	5	1	0	9999999999.000	0	5.5	6.8	9999999999.000	F
D-BC	0.75	0.19	0	9999999999.000	0	0.8	1.0	9999999999.000	F
C-ABD	158	40	465	0.340	160	0.9	0.6	12.580	B
C-D	0	0			0				
C-A	598	149			598				

J1 Ashford Road/Ham Lane/Pilgrims Way - Option 2 Base 2031 + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	9999999999.00	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	Option 2 Base 2031 + Dev	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	935	100.000
B		ONE HOUR	✓	340	100.000
C		ONE HOUR	✓	1515	100.000
D		ONE HOUR	✓	5	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	77	857	1
	B	81	0	258	1
	C	1200	315	0	0
	D	4	0	1	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.08	0.92	0.00
	B	0.24	0.00	0.76	0.00
	C	0.79	0.21	0.00	0.00
	D	0.80	0.00	0.20	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	3	0
	B	5	0	3	0
	C	1	12	0	0
	D	0	0	0	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.000	1.030	1.000
	B	1.050	1.000	1.030	1.000
	C	1.010	1.120	1.000	1.000
	D	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:30-16:45	A	704	704
	B	256	256
	C	1141	1141
	D	4	4
16:45-17:00	A	841	841
	B	306	306
	C	1362	1362
	D	4	4
17:00-17:15	A	1029	1029
	B	374	374
	C	1668	1668
	D	6	6
17:15-17:30	A	1029	1029
	B	374	374
	C	1668	1668
	D	6	6
17:30-17:45	A	841	841
	B	306	306
	C	1362	1362
	D	4	4
17:45-18:00	A	704	704
	B	256	256
	C	1141	1141
	D	4	4

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	9999999999.00	1782.72	146.0	F	238	356
B-AD	9999999999.00	1824.23	47.8	F	74	112
A-BCD	0.00	13.73	0.0	B	0.92	1
A-B					71	106
A-C					786	1180
D-AB	9999999999.00	9999999999.00	3.9	F	4	6
D-BC	9999999999.00	9999999999.00	1.0	F	0.92	1
C-ABD	0.74	31.66	3.0	D	290	436
C-D					0	0
C-A					1100	1650

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	195	49	504	0.386	192	0.0	0.6	11.788	B
B-AD	61	15	151	0.405	59	0.0	0.7	39.827	E
A-BCD	0.75	0.19	443	0.002	0.75	0.0	0.0	8.144	A
A-B	58	14			58				
A-C	645	161			645				
D-AB	3	0.75	459	0.007	3	0.0	0.0	9999999999.000	F
D-BC	0.75	0.19	114	0.007	0.73	0.0	0.0	9999999999.000	F
C-ABD	237	59	562	0.422	234	0.0	0.8	12.165	B
C-D	0	0			0				
C-A	903	226			903				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	233	58	289	0.804	222	0.6	3.3	49.370	E
B-AD	73	18	81	0.904	63	0.7	3.2	162.802	F
A-BCD	0.90	0.22	368	0.002	0.90	0.0	0.0	9.804	A
A-B	69	17			69				
A-C	770	193			770				
D-AB	4	0.90	412	0.009	4	0.0	0.0	9999999999.000	F
D-BC	0.90	0.22	34	0.027	0.83	0.0	0.0	9999999999.000	F
C-ABD	283	71	524	0.541	281	0.8	1.3	16.492	C
C-D	0	0			0				
C-A	1079	270			1079				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	285	71	0	9999999999.000	0	3.3	74.6	344.014	F
B-AD	89	22	0	9999999999.000	0	3.2	25.5	227.593	F
A-BCD	1	0.28	266	0.004	1	0.0	0.0	13.596	B
A-B	85	21			85				
A-C	944	236			944				
D-AB	4	1	0	9999999999.000	0	0.0	1.1	9999999999.000	F
D-BC	1	0.28	0	9999999999.000	0	0.0	0.3	9999999999.000	F
C-ABD	351	88	476	0.737	345	1.3	2.8	29.361	D
C-D	0	0			0				
C-A	1317	329			1317				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	285	71	0	9999999999.000	0	74.6	145.8	222.671	F
B-AD	89	22	0	9999999999.000	0	25.5	47.8	194.857	F
A-BCD	1	0.28	263	0.004	1	0.0	0.0	13.734	B
A-B	85	21			85				
A-C	944	236			944				
D-AB	4	1	0	9999999999.000	0	1.1	2.2	9999999999.000	F
D-BC	1	0.28	0	9999999999.000	0	0.3	0.6	9999999999.000	F
C-ABD	351	88	476	0.737	350	2.8	3.0	31.659	D
C-D	0	0			0				
C-A	1317	329			1317				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	233	58	233	0.999	232	145.8	146.0	1782.715	F
B-AD	73	18	75	0.966	74	47.8	47.4	1824.235	F
A-BCD	0.90	0.22	364	0.002	0.91	0.0	0.0	9.906	A
A-B	69	17			69				
A-C	770	193			770				
D-AB	4	0.90	0	9999999999.000	0	2.2	3.1	9999999999.000	F
D-BC	0.90	0.22	0	9999999999.000	0	0.6	0.8	9999999999.000	F
C-ABD	283	71	523	0.541	290	3.0	1.4	17.654	C
C-D	0	0			0				
C-A	1079	270			1079				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-CD	195	49	362	0.538	360	146.0	104.8	1256.847	F
B-AD	61	15	117	0.523	114	47.4	34.2	1293.533	F
A-BCD	0.75	0.19	440	0.002	0.76	0.0	0.0	8.190	A
A-B	58	14			58				
A-C	645	161			645				
D-AB	3	0.75	0	9999999999.000	0	3.1	3.9	9999999999.000	F
D-BC	0.75	0.19	0	9999999999.000	0	0.8	1.0	9999999999.000	F
C-ABD	237	59	562	0.422	239	1.4	0.8	12.563	B
C-D	0	0			0				
C-A	903	226			903				

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.1.4646 []
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Filename: J1 Ashford Road Ham Lane Pilgrims Way.j9
Path: P:\Southampton\ITW\Projects\344395 Maidstone BC Transport Planning\Lenham TMS April 2016\Standard rbt options\J1 Ashford Road Ham Lane Pilgrims Way
Report generation date: 04/05/2016 13:29:24

»J1 Ashford Road/Ham Lane/Pilgrims Way - Option 1 Base 2031 + Dev , AM
»J1 Ashford Road/Ham Lane/Pilgrims Way - Option 1 Base 2031 + Dev, PM
»J1 Ashford Road/Ham Lane/Pilgrims Way - Option 2 Base 2031 + Dev , AM
»J1 Ashford Road/Ham Lane/Pilgrims Way - Option 2 Base 2031 + Dev, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	J1 Ashford Road/Ham Lane/Pilgrims Way - Option 1 Base 2031 + Dev							
Arm A	41.1	111.25	1.04	F	6.6	26.70	0.88	D
Arm B	9.3	39.65	0.91	E	1.1	6.46	0.51	A
Arm C	3.1	10.35	0.75	B	88.3	171.53	1.10	F
Arm D	0.0	18.45	0.03	C	0.0	31.33	0.05	D
	J1 Ashford Road/Ham Lane/Pilgrims Way - Option 2 Base 2031 + Dev							
Arm A	144.8	389.25	1.20	F	5.1	18.66	0.84	C
Arm B	1.2	9.50	0.52	A	0.6	5.39	0.35	A
Arm C	2.7	8.80	0.72	A	71.9	139.92	1.08	F
Arm D	0.0	15.55	0.03	C	0.0	28.48	0.04	D

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

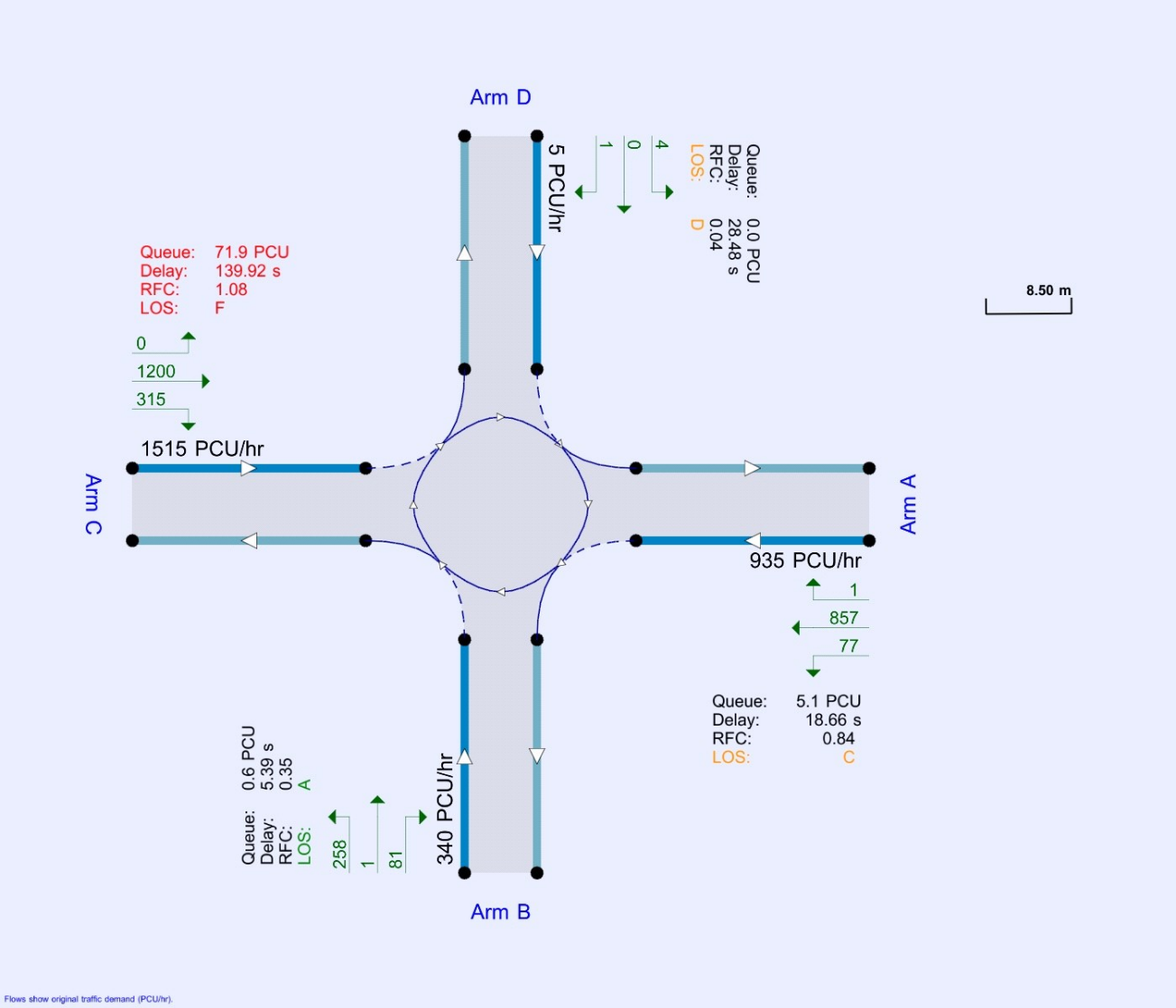
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	30/06/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MOTTMAC\rap67683
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	PCU	PCU	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	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Option 1 Base 2031 + Dev	AM	ONE HOUR	07:30	09:00	15	✓
D2	Option 1 Base 2031 + Dev	PM	ONE HOUR	16:30	18:00	15	✓
D3	Option 2 Base 2031 + Dev	AM	ONE HOUR	07:30	09:00	15	✓
D4	Option 2 Base 2031 + Dev	PM	ONE HOUR	16:30	18:00	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	J1 Ashford Road/Ham Lane/Pilgrims Way	✓	100.000	100.000

J1 Ashford Road/Ham Lane/Pilgrims Way - Option 1 Base 2031 + Dev , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	A,B,C,D	57.18	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Ashford Road E	
B	Ham Lane S	
C	Ashford Road W	
D	Pilgrims Way N	

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	4.68	4.70	0.1	12.0	27.0	21.5	
B	4.76	5.94	10.4	10.0	27.0	19.8	
C	4.79	5.89	7.3	10.0	27.0	27.7	
D	2.40	3.55	8.2	10.0	27.0	19.7	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.602	1418
B	0.653	1682
C	0.629	1609
D	0.503	955

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Option 1 Base 2031 + Dev	AM	ONE HOUR	07:30	09:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1140	100.000
B		ONE HOUR	✓	816	100.000
C		ONE HOUR	✓	1004	100.000
D		ONE HOUR	✓	8	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	121	1019	0
	B	193	0	622	1
	C	687	317	0	0
	D	5	2	1	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.11	0.89	0.00
	B	0.24	0.00	0.76	0.00
	C	0.68	0.32	0.00	0.00
	D	0.63	0.25	0.13	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	17	7	0
	B	35	0	8	0
	C	7	6	0	0
	D	100	0	0	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.166	1.070	1.000
	B	1.350	1.000	1.080	1.000
	C	1.070	1.060	1.000	1.000
	D	2.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A	858	858
	B	614	614
	C	756	756
	D	6	6
07:45-08:00	A	1025	1025
	B	734	734
	C	903	903
	D	7	7
08:00-08:15	A	1255	1255
	B	898	898
	C	1105	1105
	D	9	9
08:15-08:30	A	1255	1255
	B	898	898
	C	1105	1105
	D	9	9
08:30-08:45	A	1025	1025
	B	734	734
	C	903	903
	D	7	7
08:45-09:00	A	858	858
	B	614	614
	C	756	756
	D	6	6

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	1.04	111.25	41.1	F	1046	1569
B	0.91	39.65	9.3	E	749	1123
C	0.75	10.35	3.1	B	921	1382
D	0.03	18.45	0.0	C	7	11

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	858	215	240	1274	0.674	850	662	0.0	2.2	8.990	A
B	614	154	760	1186	0.518	610	329	0.0	1.2	7.027	A
C	756	189	145	1518	0.498	752	1225	0.0	1.0	4.988	A
D	6	2	896	504	0.012	6	0.75	0.0	0.0	10.512	B

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	1025	256	287	1245	0.823	1015	793	2.2	4.6	16.239	C
B	734	183	908	1089	0.674	729	394	1.2	2.3	11.215	B
C	903	226	173	1500	0.602	900	1464	1.0	1.6	6.386	A
D	7	2	1073	415	0.017	7	0.89	0.0	0.0	12.842	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	1255	314	350	1207	1.040	1170	965	4.6	25.8	59.277	F
B	898	225	1047	998	0.900	877	474	2.3	7.6	29.526	D
C	1105	276	208	1478	0.748	1100	1716	1.6	3.0	10.006	B
D	9	2	1307	297	0.030	9	1	0.0	0.0	18.153	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	1255	314	352	1206	1.041	1194	973	25.8	41.1	111.249	F
B	898	225	1068	985	0.912	892	478	7.6	9.3	39.654	E
C	1105	276	212	1475	0.749	1105	1748	3.0	3.1	10.351	B
D	9	2	1316	293	0.030	9	1	0.0	0.0	18.454	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	1025	256	290	1244	0.824	1165	805	41.1	6.1	64.765	F
B	734	183	1042	1002	0.732	757	412	9.3	3.3	18.111	C
C	903	226	180	1495	0.604	908	1619	3.1	1.7	6.607	A
D	7	2	1088	408	0.018	7	0.93	0.0	0.0	13.085	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	858	215	242	1272	0.675	874	670	6.1	2.3	10.097	B
B	614	154	782	1172	0.524	622	334	3.3	1.3	7.537	A
C	756	189	148	1516	0.499	758	1256	1.7	1.1	5.087	A
D	6	2	905	499	0.012	6	0.76	0.0	0.0	10.618	B

J1 Ashford Road/Ham Lane/Pilgrims Way - Option 1 Base 2031 + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	A,B,C,D	97.91	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Option 1 Base 2031 + Dev	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	863	100.000
B		ONE HOUR	✓	544	100.000
C		ONE HOUR	✓	1515	100.000
D		ONE HOUR	✓	5	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	158	704	1
	B	132	0	411	1
	C	955	560	0	0
	D	4	0	1	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.18	0.82	0.00
	B	0.24	0.00	0.76	0.00
	C	0.63	0.37	0.00	0.00
	D	0.80	0.00	0.20	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	3	0
	B	5	0	3	0
	C	1	12	0	0
	D	0	0	0	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.000	1.030	1.000
	B	1.050	1.000	1.030	1.000
	C	1.010	1.120	1.000	1.000
	D	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:30-16:45	A	650	650
	B	410	410
	C	1141	1141
	D	4	4
16:45-17:00	A	776	776
	B	489	489
	C	1362	1362
	D	4	4
17:00-17:15	A	950	950
	B	599	599
	C	1668	1668
	D	6	6
17:15-17:30	A	950	950
	B	599	599
	C	1668	1668
	D	6	6
17:30-17:45	A	776	776
	B	489	489
	C	1362	1362
	D	4	4
17:45-18:00	A	650	650
	B	410	410
	C	1141	1141
	D	4	4

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.88	26.70	6.6	D	792	1188
B	0.51	6.46	1.1	A	499	749
C	1.10	171.53	88.3	F	1390	2085
D	0.05	31.33	0.0	D	5	7

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	650	162	418	1166	0.557	645	814	0.0	1.3	7.004	A
B	410	102	527	1338	0.306	408	535	0.0	0.5	3.999	A
C	1141	285	100	1546	0.738	1129	835	0.0	2.8	8.836	A
D	4	0.94	1228	337	0.011	4	1	0.0	0.0	10.806	B

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	776	194	498	1118	0.694	772	970	1.3	2.2	10.531	B
B	489	122	631	1270	0.385	488	639	0.5	0.6	4.762	A
C	1362	340	120	1533	0.888	1345	1000	2.8	7.1	18.561	C
D	4	1	1464	218	0.021	4	2	0.0	0.0	16.829	C

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	950	238	555	1084	0.877	935	1094	2.2	6.0	22.706	C
B	599	150	765	1183	0.506	597	725	0.6	1.0	6.346	A
C	1668	417	147	1516	1.100	1498	1215	7.1	49.5	78.575	F
D	6	1	1643	128	0.043	5	2	0.0	0.0	29.346	D

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	950	238	560	1081	0.879	948	1103	6.0	6.6	26.705	D
B	599	150	775	1176	0.509	599	733	1.0	1.1	6.457	A
C	1668	417	148	1516	1.100	1513	1227	49.5	88.3	171.527	F
D	6	1	1658	120	0.046	5	2	0.0	0.0	31.330	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	776	194	561	1080	0.718	791	1078	6.6	2.7	13.390	B
B	489	122	647	1259	0.388	491	705	1.1	0.7	4.858	A
C	1362	340	121	1533	0.889	1515	1017	88.3	50.1	166.362	F
D	4	1	1634	133	0.034	5	2	0.0	0.0	28.107	D

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	650	162	492	1122	0.579	655	940	2.7	1.4	7.981	A
B	410	102	536	1332	0.307	410	611	0.7	0.5	4.044	A
C	1141	285	101	1545	0.738	1328	845	50.1	3.2	33.853	D
D	4	0.94	1428	236	0.016	4	2	0.0	0.0	15.498	C

J1 Ashford Road/Ham Lane/Pilgrims Way - Option 2 Base 2031 + Dev , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	A,B,C,D	196.20	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Option 2 Base 2031 + Dev	AM	ONE HOUR	07:30	09:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1396	100.000
B		ONE HOUR	✓	428	100.000
C		ONE HOUR	✓	1004	100.000
D		ONE HOUR	✓	8	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	86	1310	0
	B	96	0	331	1
	C	794	210	0	0
	D	5	2	1	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.06	0.94	0.00
	B	0.22	0.00	0.77	0.00
	C	0.79	0.21	0.00	0.00
	D	0.63	0.25	0.13	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	17	7	0
	B	35	0	8	0
	C	7	6	0	0
	D	100	0	0	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.166	1.070	1.000
	B	1.350	1.000	1.080	1.000
	C	1.070	1.060	1.000	1.000
	D	2.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A	1051	1051
	B	322	322
	C	756	756
	D	6	6
07:45-08:00	A	1255	1255
	B	385	385
	C	903	903
	D	7	7
08:00-08:15	A	1537	1537
	B	471	471
	C	1105	1105
	D	9	9
08:15-08:30	A	1537	1537
	B	471	471
	C	1105	1105
	D	9	9
08:30-08:45	A	1255	1255
	B	385	385
	C	903	903
	D	7	7
08:45-09:00	A	1051	1051
	B	322	322
	C	756	756
	D	6	6

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	1.20	389.25	144.8	F	1281	1921
B	0.52	9.50	1.2	A	393	589
C	0.72	8.80	2.7	A	921	1382
D	0.03	15.55	0.0	C	7	11

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	1051	263	160	1322	0.795	1035	670	0.0	3.9	12.899	B
B	322	81	972	1047	0.308	320	223	0.0	0.5	5.585	A
C	756	189	73	1563	0.484	752	1220	0.0	1.0	4.717	A
D	6	2	824	540	0.011	6	0.75	0.0	0.0	9.798	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	1255	314	191	1303	0.963	1217	803	3.9	13.3	35.186	E
B	385	96	1143	936	0.411	384	265	0.5	0.8	7.359	A
C	903	226	87	1554	0.581	901	1440	1.0	1.5	5.868	A
D	7	2	987	458	0.016	7	0.90	0.0	0.0	11.607	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	1537	384	234	1277	1.203	1272	981	13.3	79.5	141.582	F
B	471	118	1195	902	0.522	470	311	0.8	1.2	9.372	A
C	1105	276	106	1542	0.717	1101	1558	1.5	2.6	8.625	A
D	9	2	1206	348	0.025	9	1	0.0	0.0	15.437	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	1537	384	234	1277	1.204	1276	985	79.5	144.8	321.685	F
B	471	118	1199	899	0.524	471	312	1.2	1.2	9.499	A
C	1105	276	107	1542	0.717	1105	1563	2.6	2.7	8.801	A
D	9	2	1211	345	0.026	9	1	0.0	0.0	15.553	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	1255	314	192	1302	0.964	1292	809	144.8	135.4	389.246	F
B	385	96	1214	890	0.433	386	271	1.2	0.9	8.107	A
C	903	226	88	1554	0.581	907	1512	2.7	1.5	5.987	A
D	7	2	994	455	0.016	7	0.90	0.0	0.0	11.705	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	1051	263	161	1321	0.796	1311	676	135.4	70.5	284.552	F
B	322	81	1231	879	0.367	323	241	0.9	0.7	7.337	A
C	756	189	73	1563	0.484	758	1481	1.5	1.0	4.787	A
D	6	2	830	537	0.011	6	0.75	0.0	0.0	9.862	A

J1 Ashford Road/Ham Lane/Pilgrims Way - Option 2 Base 2031 + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	A,B,C,D	82.79	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	Option 2 Base 2031 + Dev	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	935	100.000
B		ONE HOUR	✓	340	100.000
C		ONE HOUR	✓	1515	100.000
D		ONE HOUR	✓	5	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	77	857	1
	B	81	0	258	1
	C	1200	315	0	0
	D	4	0	1	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.08	0.92	0.00
	B	0.24	0.00	0.76	0.00
	C	0.79	0.21	0.00	0.00
	D	0.80	0.00	0.20	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	3	0
	B	5	0	3	0
	C	1	12	0	0
	D	0	0	0	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.000	1.030	1.000
	B	1.050	1.000	1.030	1.000
	C	1.010	1.120	1.000	1.000
	D	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:30-16:45	A	704	704
	B	256	256
	C	1141	1141
	D	4	4
16:45-17:00	A	841	841
	B	306	306
	C	1362	1362
	D	4	4
17:00-17:15	A	1029	1029
	B	374	374
	C	1668	1668
	D	6	6
17:15-17:30	A	1029	1029
	B	374	374
	C	1668	1668
	D	6	6
17:30-17:45	A	841	841
	B	306	306
	C	1362	1362
	D	4	4
17:45-18:00	A	704	704
	B	256	256
	C	1141	1141
	D	4	4

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.84	18.66	5.1	C	858	1287
B	0.35	5.39	0.6	A	312	468
C	1.08	139.92	71.9	F	1390	2085
D	0.04	28.48	0.0	D	5	7

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	704	176	236	1276	0.552	699	959	0.0	1.2	6.355	A
B	256	64	642	1263	0.203	255	293	0.0	0.3	3.692	A
C	1141	285	62	1570	0.727	1130	835	0.0	2.7	8.254	A
D	4	0.94	1191	356	0.011	4	1	0.0	0.0	10.228	B

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	841	210	281	1249	0.673	837	1144	1.2	2.1	8.919	A
B	306	76	769	1180	0.259	305	349	0.3	0.4	4.257	A
C	1362	340	75	1562	0.872	1348	1000	2.7	6.2	16.338	C
D	4	1	1421	240	0.019	4	2	0.0	0.0	15.284	C

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	1029	257	319	1226	0.840	1018	1303	2.1	4.8	16.951	C
B	374	94	936	1071	0.349	374	401	0.4	0.6	5.334	A
C	1668	417	91	1551	1.075	1527	1218	6.2	41.4	66.695	F
D	6	1	1616	142	0.039	5	2	0.0	0.0	26.428	D

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	1029	257	323	1224	0.841	1028	1318	4.8	5.1	18.662	C
B	374	94	945	1065	0.351	374	406	0.6	0.6	5.390	A
C	1668	417	91	1551	1.075	1546	1228	41.4	71.9	139.924	F
D	6	1	1635	132	0.042	5	2	0.0	0.0	28.483	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	841	210	321	1225	0.686	852	1296	5.1	2.3	10.197	B
B	306	76	782	1171	0.261	306	390	0.6	0.4	4.312	A
C	1362	340	75	1562	0.872	1540	1014	71.9	27.4	119.406	F
D	4	1	1613	143	0.031	5	2	0.0	0.0	25.945	D

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	704	176	258	1262	0.558	708	1045	2.3	1.3	6.720	A
B	256	64	650	1257	0.204	256	316	0.4	0.3	3.724	A
C	1141	285	63	1569	0.727	1239	844	27.4	2.9	14.709	B
D	4	0.94	1300	301	0.013	4	2	0.0	0.0	12.133	B

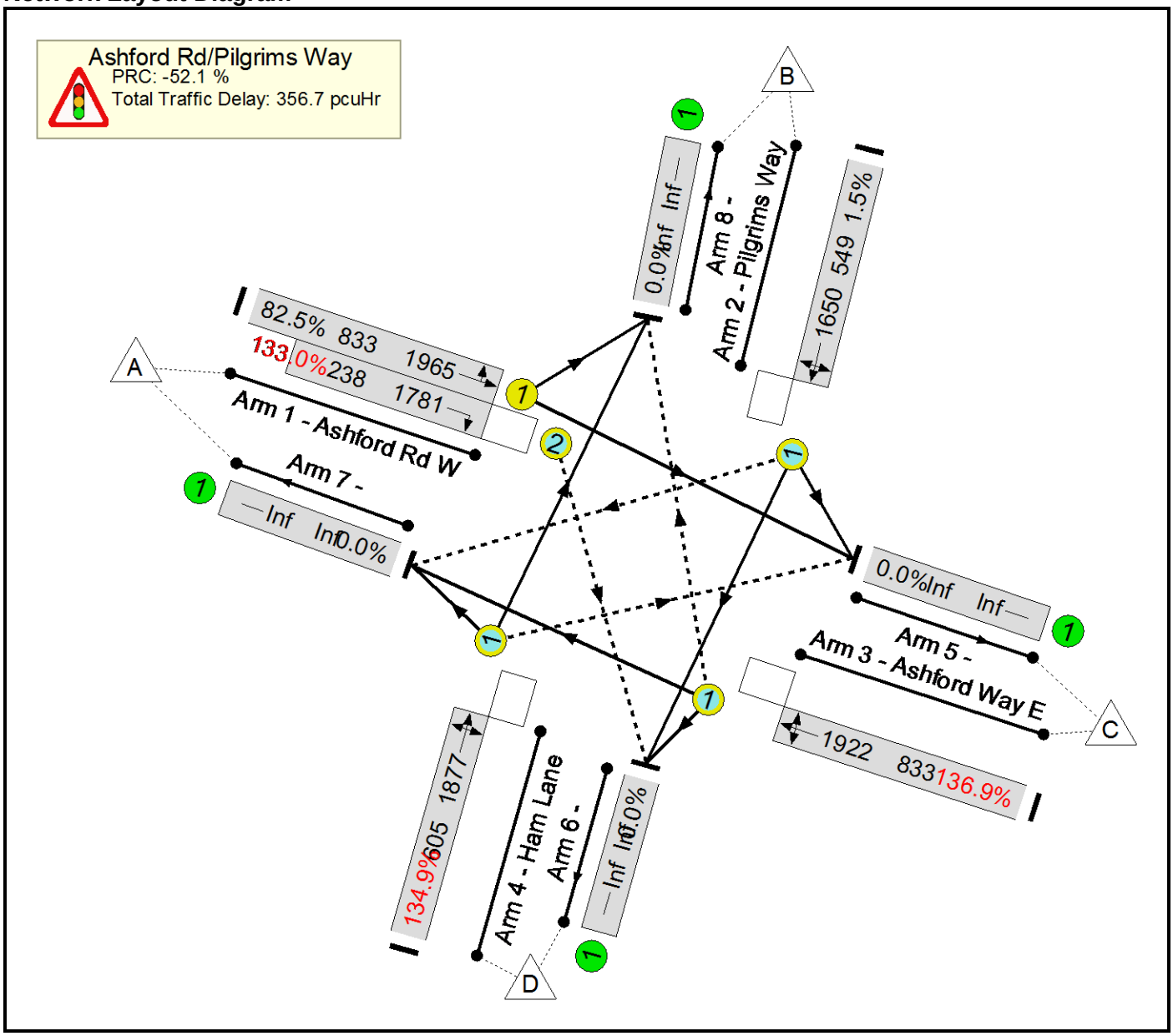
Basic Results Summary

User and Project Details

Project:	**Lenham**
Title:	**Junction 1 Ashford Rd/Pilgrims Way with RT Lane**
Location:	Maidstone
File name:	Ashford Rd_Pilgrims Way with RT Lane.lsg3x
Author:	David Parkin
Company:	Mott MacDonald
Address:	Stoneham Place, Stoneham Lane, Southampton
Notes:	

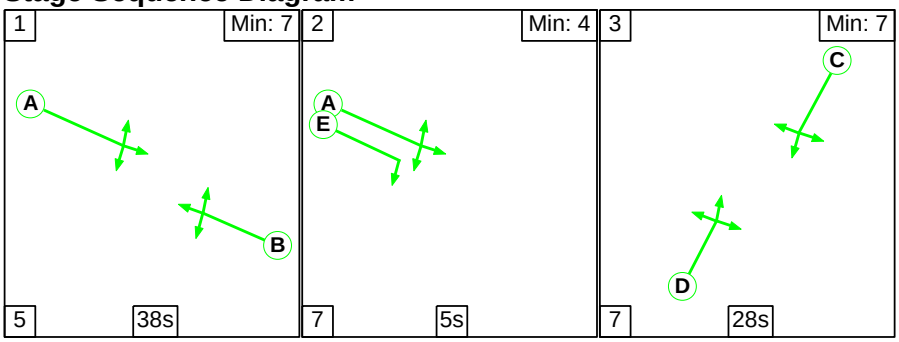
Scenario 1: 'Option 1 AM Base 2031 + Dev' (FG1: 'Option 1 AM Base 2031 + Dev', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Stage Sequence Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Junction 1 Ashford Rd/Pilgrims Way with RT Lane	-	-	-		-	-	-	-	-	-	**136.9%**	**143**	**198**	**41**	**356.7**	-	-
Ashford Rd/Pilgrims Way	-	-	-		-	-	-	-	-	-	**136.9%**	**143**	**198**	**41**	**356.7**	-	-
1/1+1/2	Ashford Rd W Ahead Right Left	U+O	A	E	1	50	5	1004	1965:1781	833+238	82.5 : 133.0%	0	198	40	54.4	195.0	56.9
2/1	Pilgrims Way Left Ahead Right	O	C		1	29	-	8	1650	549	1.5%	0	0	1	0.1	26.8	0.1
3/1	Ashford Way E Left Ahead Right	O	B		1	38	-	1140	1922	833	136.9%	0	0	0	176.6	557.7	191.6
4/1	Ham Lane Right Left Ahead	O	D		1	28	-	816	1877	605	134.9%	143	0	0	125.7	554.4	137.8

C1

PRC for Signalled Lanes (%): -52.1
PRC Over All Lanes (%): -52.1

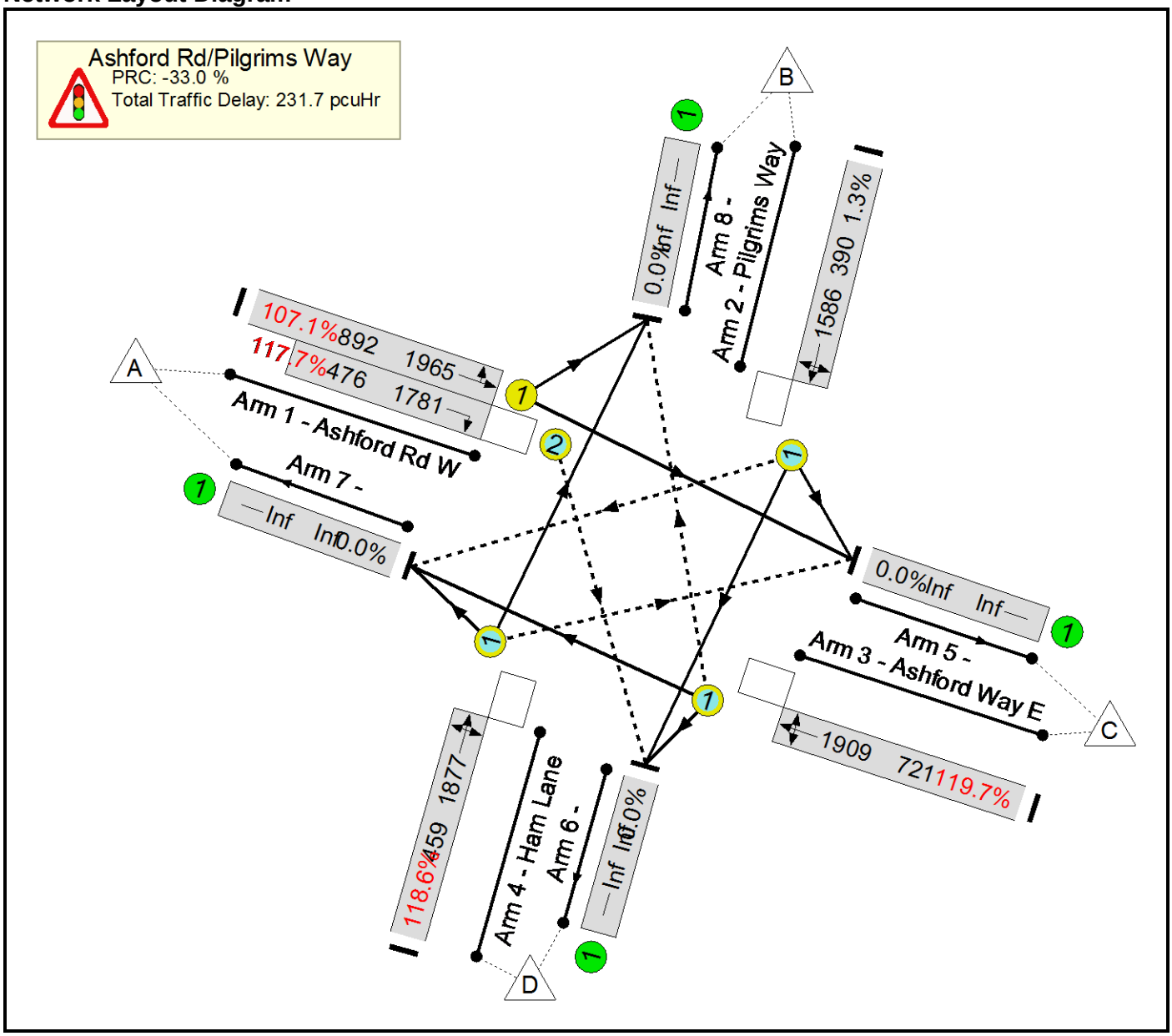
Total Delay for Signalled Lanes (pcuHr): 356.71
Total Delay Over All Lanes(pcuHr): 356.71

Cycle Time (s): 90

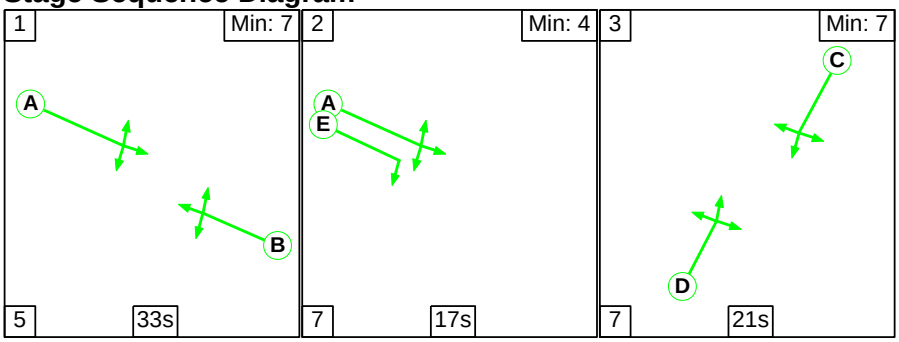
Basic Results Summary

Scenario 2: 'Option 1 PM Base 2031 + Dev' (FG2: 'Option 1 PM Base 2031 + Dev', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Stage Sequence Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Junction 1 Ashford Rd/Pilgrims Way with RT Lane	-	-	-		-	-	-	-	-	-	**119.7%**	**112**	**435**	**41**	**231.7**	-	-
Ashford Rd/Pilgrims Way	-	-	-		-	-	-	-	-	-	**119.7%**	**112**	**435**	**41**	**231.7**	-	-
1/1+1/2	Ashford Rd W Ahead Right Left	U+O	A	E	1	57	17	1515	1965:1781	892+476	107.1 : 117.7%	0	435	40	89.8	213.4	103.3
2/1	Pilgrims Way Left Ahead Right	O	C		1	22	-	5	1586	390	1.3%	0	0	1	0.0	34.0	0.1
3/1	Ashford Way E Left Ahead Right	O	B		1	33	-	863	1909	721	119.7%	1	0	0	86.7	361.7	99.0
4/1	Ham Lane Right Left Ahead	O	D		1	21	-	544	1877	459	118.6%	111	0	0	55.2	365.1	63.0

C1

PRC for Signalled Lanes (%): -33.0
PRC Over All Lanes (%): -33.0

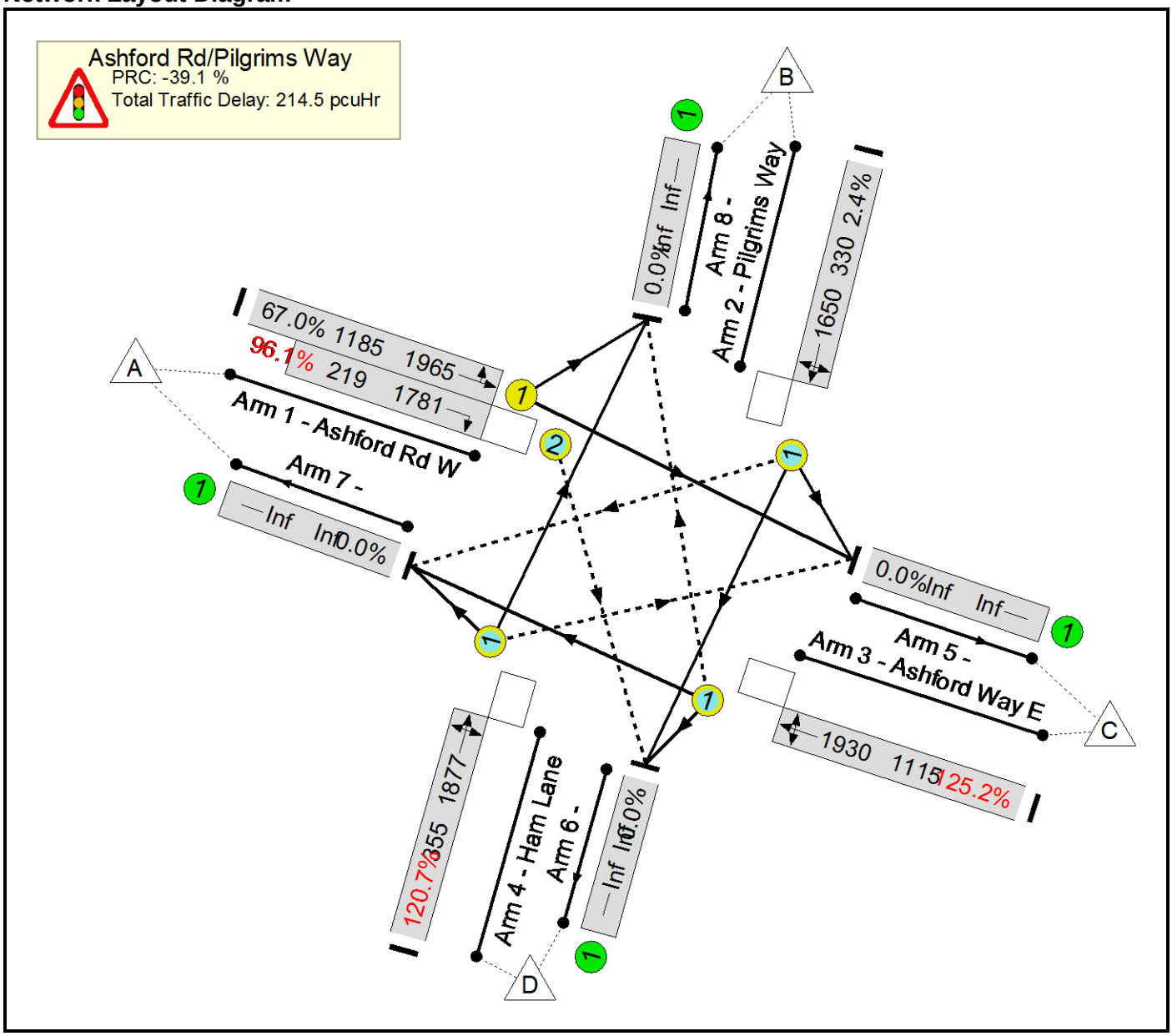
Total Delay for Signalled Lanes (pcuHr): 231.73
Total Delay Over All Lanes(pcuHr): 231.73

Cycle Time (s): 90

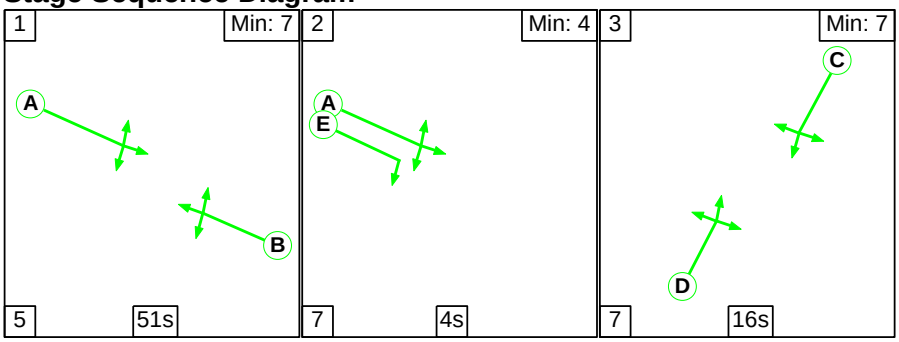
Basic Results Summary

Scenario 3: 'Option 2 AM Base 2031 + Dev' (FG3: 'Option 2 AM Base 2031 + Dev', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Stage Sequence Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Junction 1 Ashford Rd/Pilgrims Way with RT Lane	-	-	-		-	-	-	-	-	-	**125.2%**	**80**	**178**	**33**	**214.5**	-	-
Ashford Rd/Pilgrims Way	-	-	-		-	-	-	-	-	-	**125.2%**	**80**	**178**	**33**	**214.5**	-	-
1/1+1/2	Ashford Rd W Ahead Right Left	U+O	A	E	1	62	4	1004	1965:1781	1185+219	67.0 : 96.1%	0	178	32	5.0	18.1	11.2
2/1	Pilgrims Way Left Ahead Right	O	C		1	17	-	8	1650	330	2.4%	0	0	1	0.1	36.8	0.2
3/1	Ashford Way E Left Ahead Right	O	B		1	51	-	1396	1930	1115	125.2%	0	0	0	161.8	417.2	184.8
4/1	Ham Lane Right Left Ahead	O	D		1	16	-	428	1877	355	120.7%	80	0	0	47.6	400.2	53.5

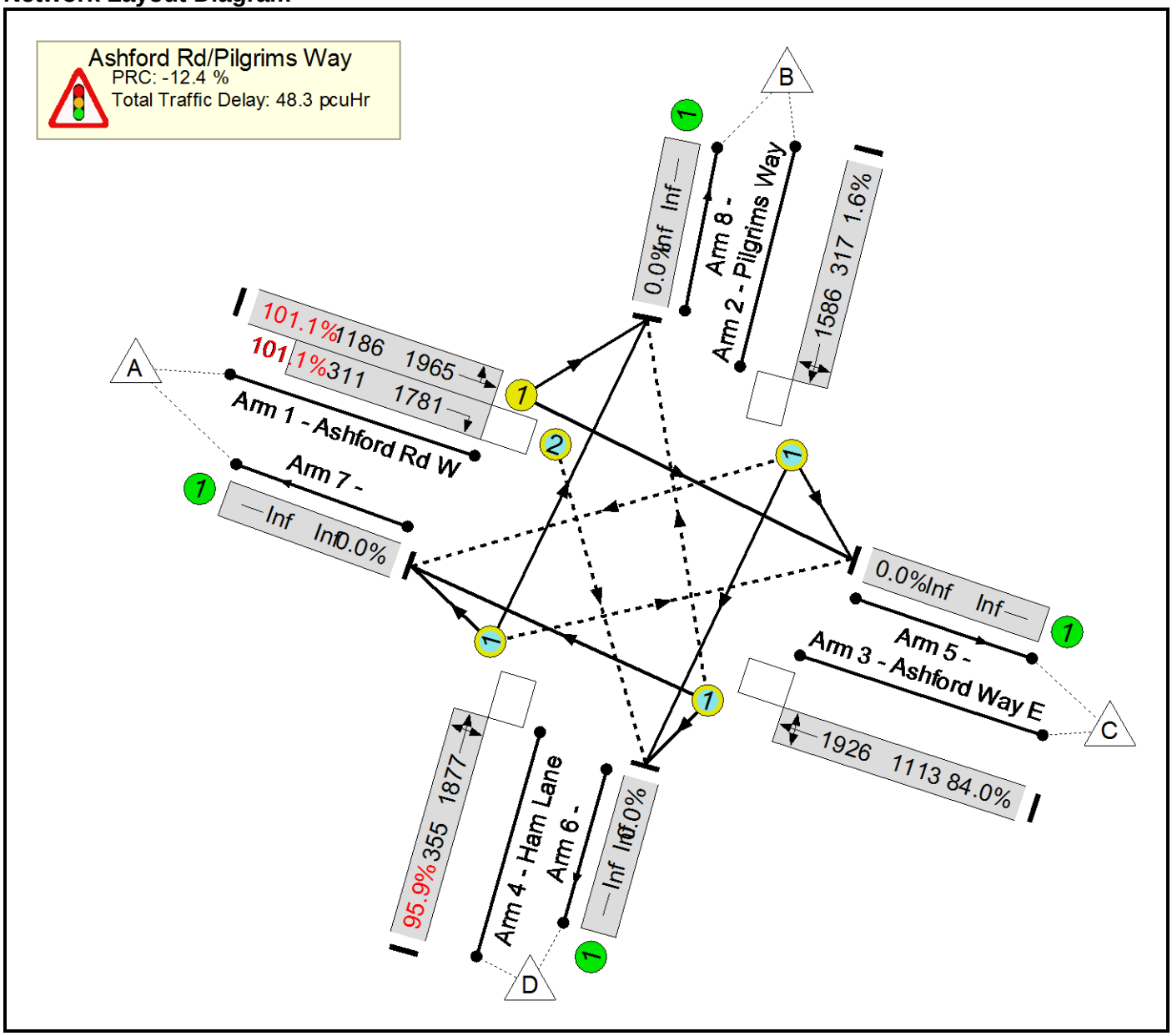
C1 PRC for Signalled Lanes (%): -39.1 Total Delay for Signalled Lanes (pcuHr): 214.46 Cycle Time (s): 90

PRC Over All Lanes (%): -39.1 Total Delay Over All Lanes(pcuHr): 214.46

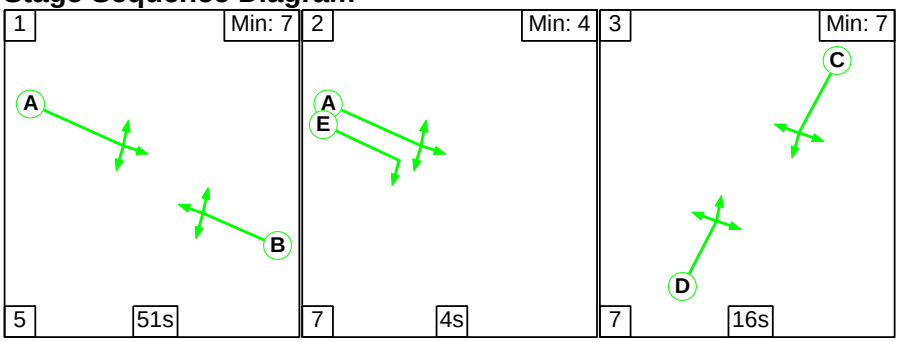
Basic Results Summary

Scenario 4: 'Option 2 PM Base 2031 + Dev' (FG4: 'Option 2 PM Base 2031 + Dev', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Stage Sequence Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Junction 1 Ashford Rd/Pilgrims Way with RT Lane	-	-	-		-	-	-	-	-	-	**101.1%**	**158**	**178**	**59**	**48.3**	-	-
Ashford Rd/Pilgrims Way	-	-	-		-	-	-	-	-	-	**101.1%**	**158**	**178**	**59**	**48.3**	-	-
1/1+1/2	Ashford Rd W Ahead Right Left	U+O	A	E	1	62	4	1515	1965:1781	1186+311	101.1 : 101.1%	75	178	59	32.0	76.0	62.2
2/1	Pilgrims Way Left Ahead Right	O	C		1	17	-	5	1586	317	1.6%	1	0	0	0.1	38.0	0.1
3/1	Ashford Way E Left Ahead Right	O	B		1	51	-	935	1926	1113	84.0%	1	0	0	6.6	25.4	21.5
4/1	Ham Lane Right Left Ahead	O	D		1	16	-	340	1877	355	95.9%	81	0	0	9.7	102.6	14.7

C1 PRC for Signalled Lanes (%): -12.4 Total Delay for Signalled Lanes (pcuHr): 48.33 Cycle Time (s): 90

PRC Over All Lanes (%): -12.4 Total Delay Over All Lanes(pcuHr): 48.33

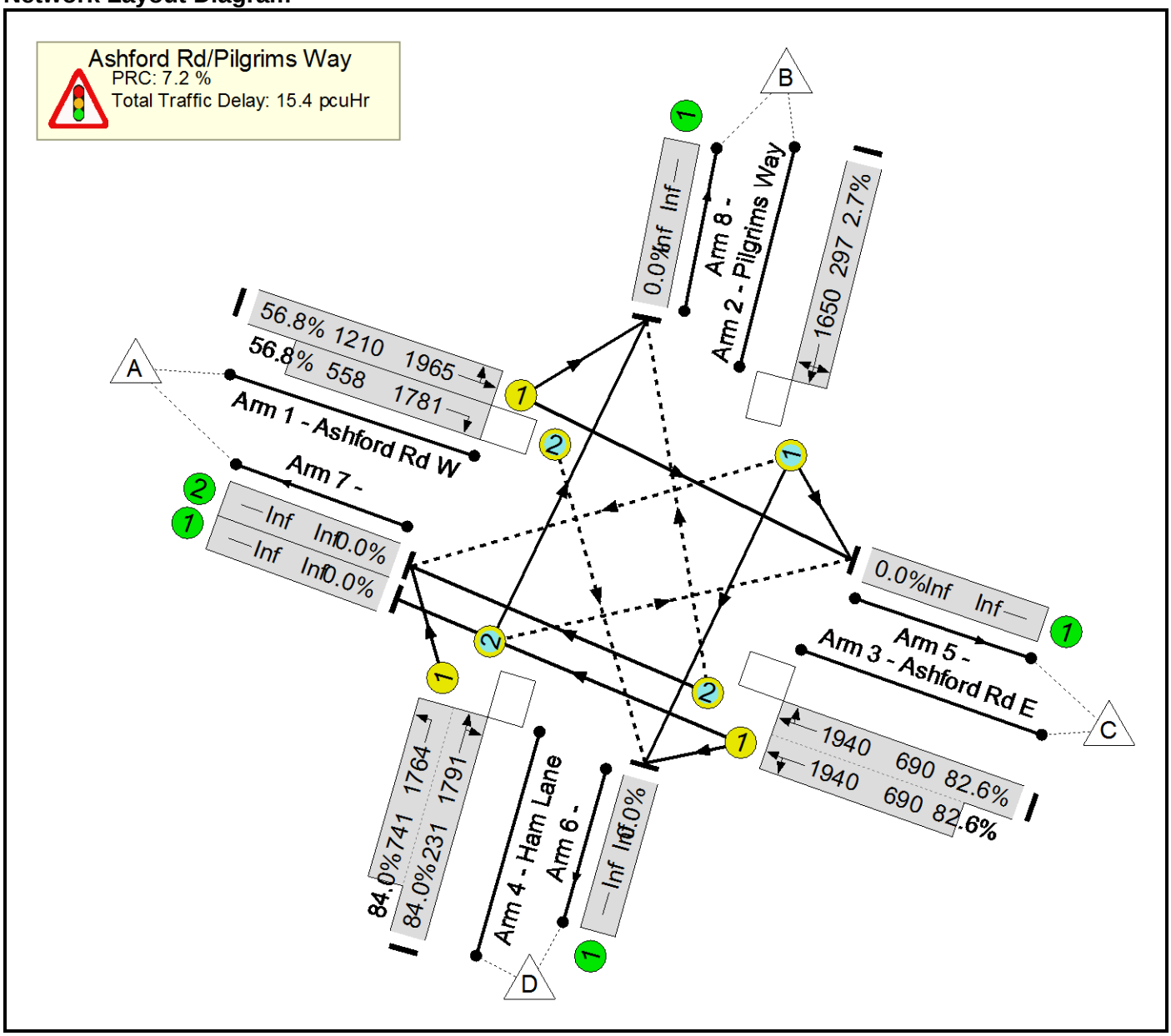
Basic Results Summary

User and Project Details

Project:	**Lenham**
Title:	**Junction 1 Ashford Rd/Pilgrims Way with Additional Lanes**
Location:	Maidstone
File name:	Ashford Rd_Pilgrims Way with additional lanes.lsg3x
Author:	David Parkin
Company:	Mott MacDonald
Address:	Stoneham Place, Stoneham Lane, Southampton
Notes:	

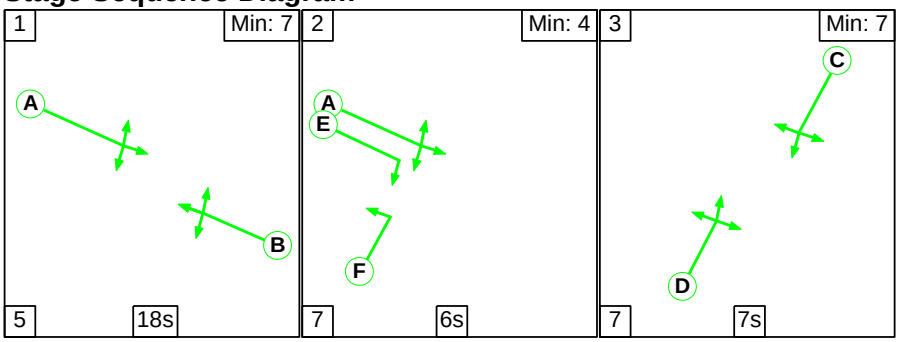
Scenario 1: 'Option 1 AM Base 2031 + Dev' (FG1: 'Option 1 AM Base 2031 + Dev', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Stage Sequence Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Junction 1 Ashford Rd/Pilgrims Way with Additional Lanes	-	-	-		-	-	-	-	-	-	**84.0%**	**292**	**206**	**13**	**15.4**	-	-
Ashford Rd/Pilgrims Way	-	-	-		-	-	-	-	-	-	**84.0%**	**292**	**206**	**13**	**15.4**	-	-
1/1+1/2	Ashford Rd W Ahead Right Left	U+O	A	E	1	31	6	1004	1965:1781	1210+558	56.8 : 56.8%	98	206	13	2.8	10.1	5.8
2/1	Pilgrims Way Left Ahead Right	O	C		1	8	-	8	1650	297	2.7%	1	0	0	0.1	23.6	0.1
3/2+3/1	Ashford Rd E Left Ahead Right	O+U	B		1	18	-	1140	1940:1940	690+690	82.6 : 82.6%	0	0	0	6.6	20.9	9.1
4/2+4/1	Ham Lane Right Left Ahead	O+U	D	F	1	7:20	13	816	1791:1764	231+741	84.0 : 84.0%	193	0	0	5.9	25.9	10.1

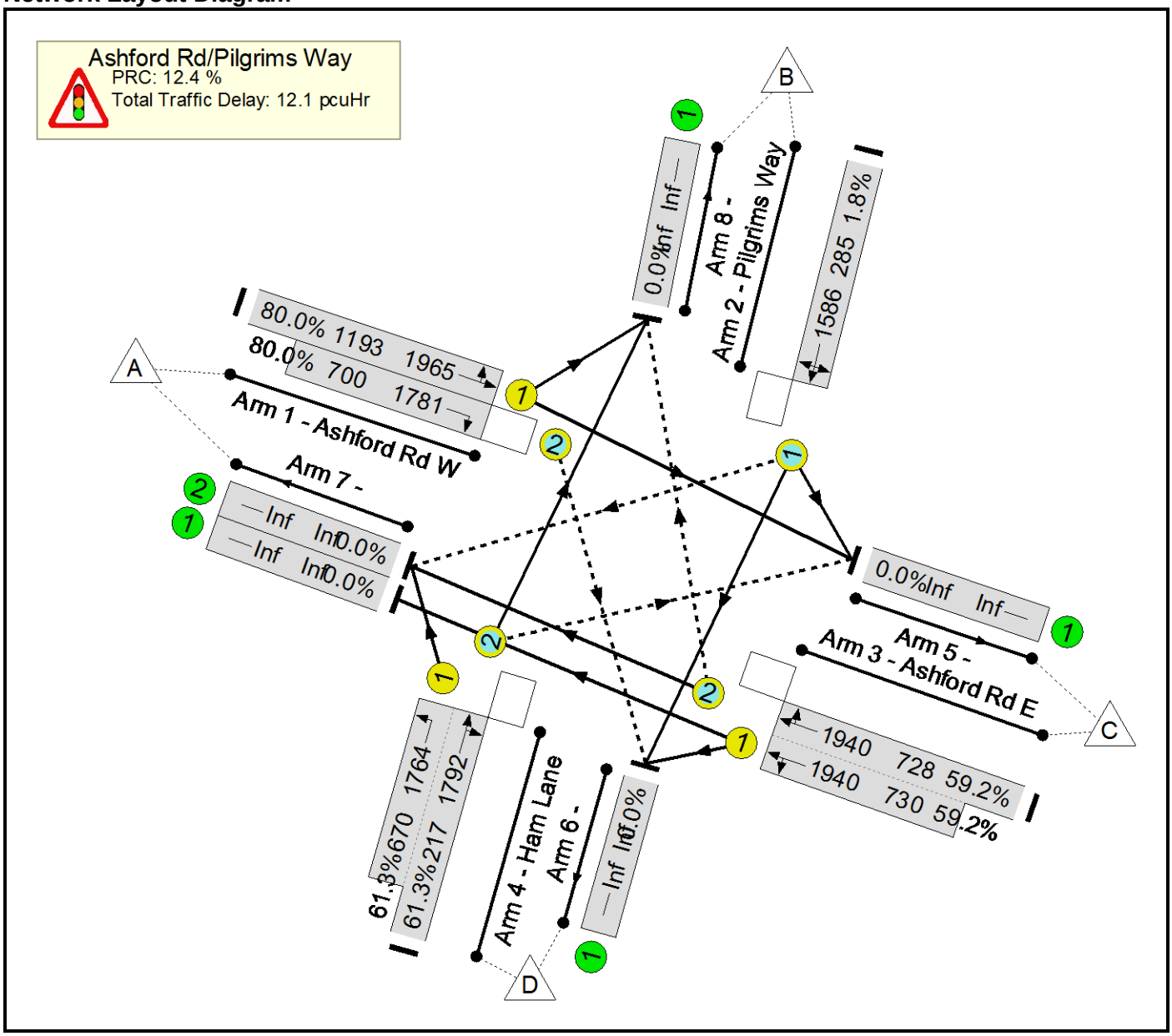
C1 PRC for Signalled Lanes (%): 7.2 Total Delay for Signalled Lanes (pcuHr): 15.38 Cycle Time (s): 50

PRC Over All Lanes (%): 7.2 Total Delay Over All Lanes(pcuHr): 15.38

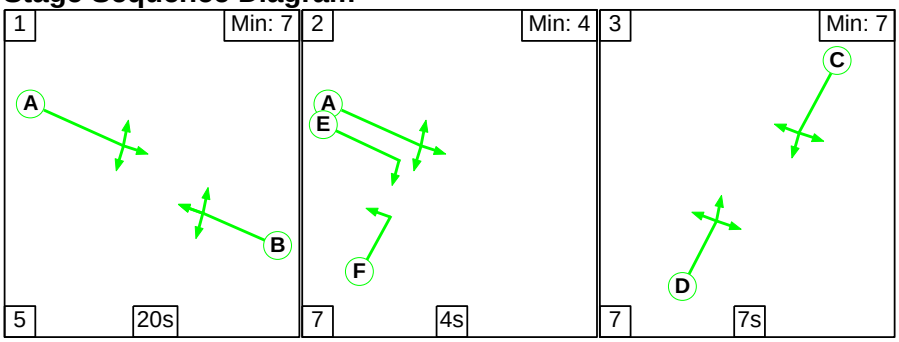
Basic Results Summary

Scenario 2: 'Option 1 PM Base 2031 + Dev' (FG2: 'Option 1 PM Base 2031 + Dev', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Stage Sequence Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Junction 1 Ashford Rd/Pilgrims Way with Additional Lanes	-	-	-		-	-	-	-	-	-	**80.0%**	**376**	**295**	**22**	**12.1**	-	-
Ashford Rd/Pilgrims Way	-	-	-		-	-	-	-	-	-	**80.0%**	**376**	**295**	**22**	**12.1**	-	-
1/1+1/2	Ashford Rd W Ahead Right Left	U+O	A	E	1	31	4	1515	1965:1781	1193+700	80.0 : 80.0%	242	295	22	5.8	13.8	11.3
2/1	Pilgrims Way Left Ahead Right	O	C		1	8	-	5	1586	285	1.8%	1	0	0	0.0	23.8	0.1
3/2+3/1	Ashford Rd E Left Ahead Right	O+U	B		1	20	-	863	1940:1940	728+730	59.2 : 59.2%	1	0	0	3.3	13.8	5.2
4/2+4/1	Ham Lane Right Left Ahead	O+U	D	F	1	7:18	11	544	1792:1764	217+670	61.3 : 61.3%	132	0	0	2.9	19.4	5.4

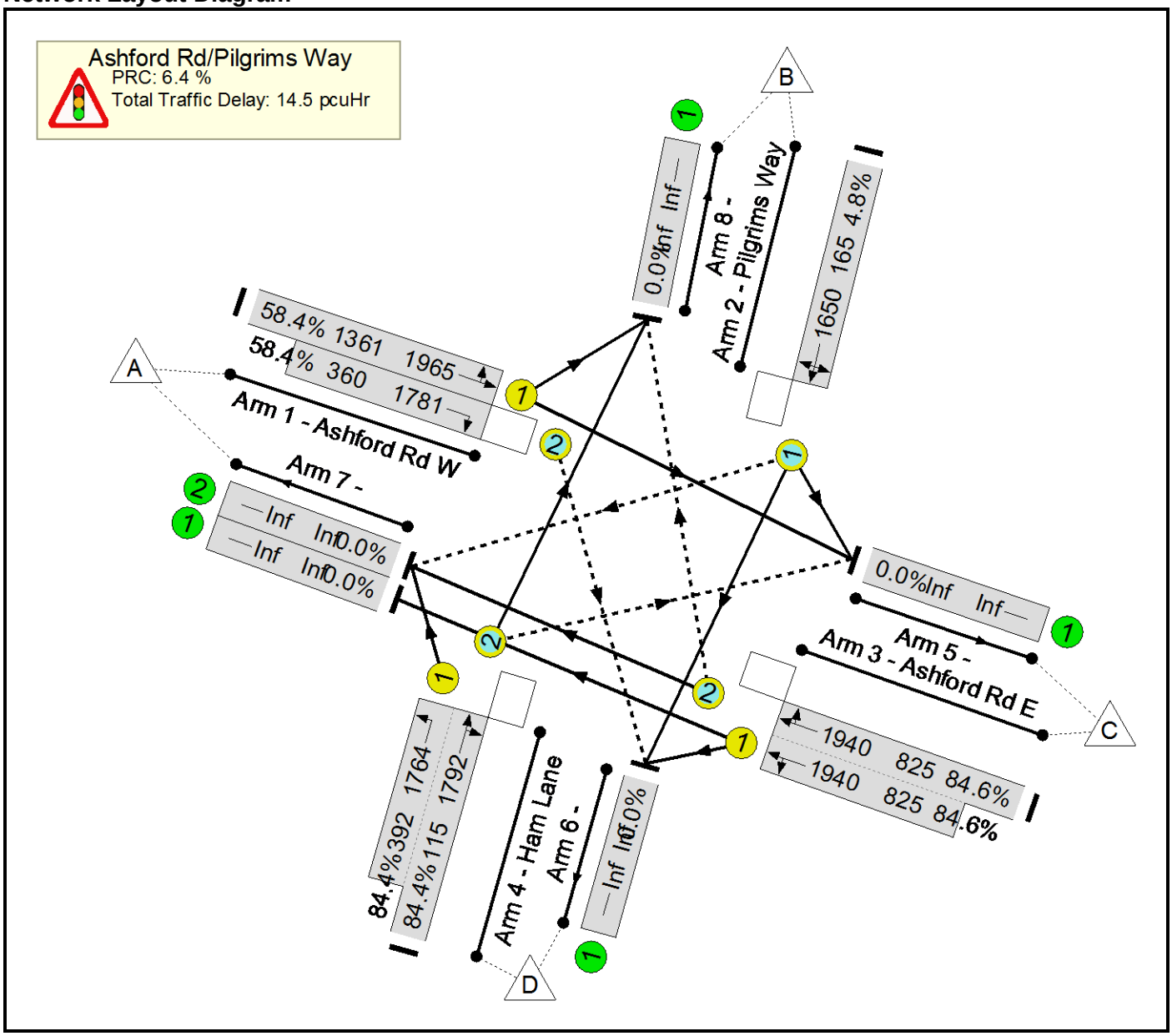
C1 PRC for Signalled Lanes (%): 12.4 Total Delay for Signalled Lanes (pcuHr): 12.11 Cycle Time (s): 50

PRC Over All Lanes (%): 12.4 Total Delay Over All Lanes(pcuHr): 12.11

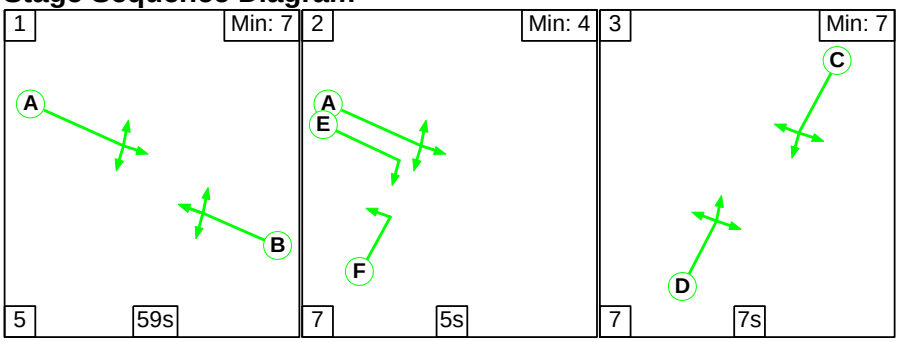
Basic Results Summary

Scenario 3: 'Option 2 AM Base 2031 + Dev' (FG3: 'Option 2 AM Base 2031 + Dev', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Stage Sequence Diagram



Basic Results Summary

Network Results

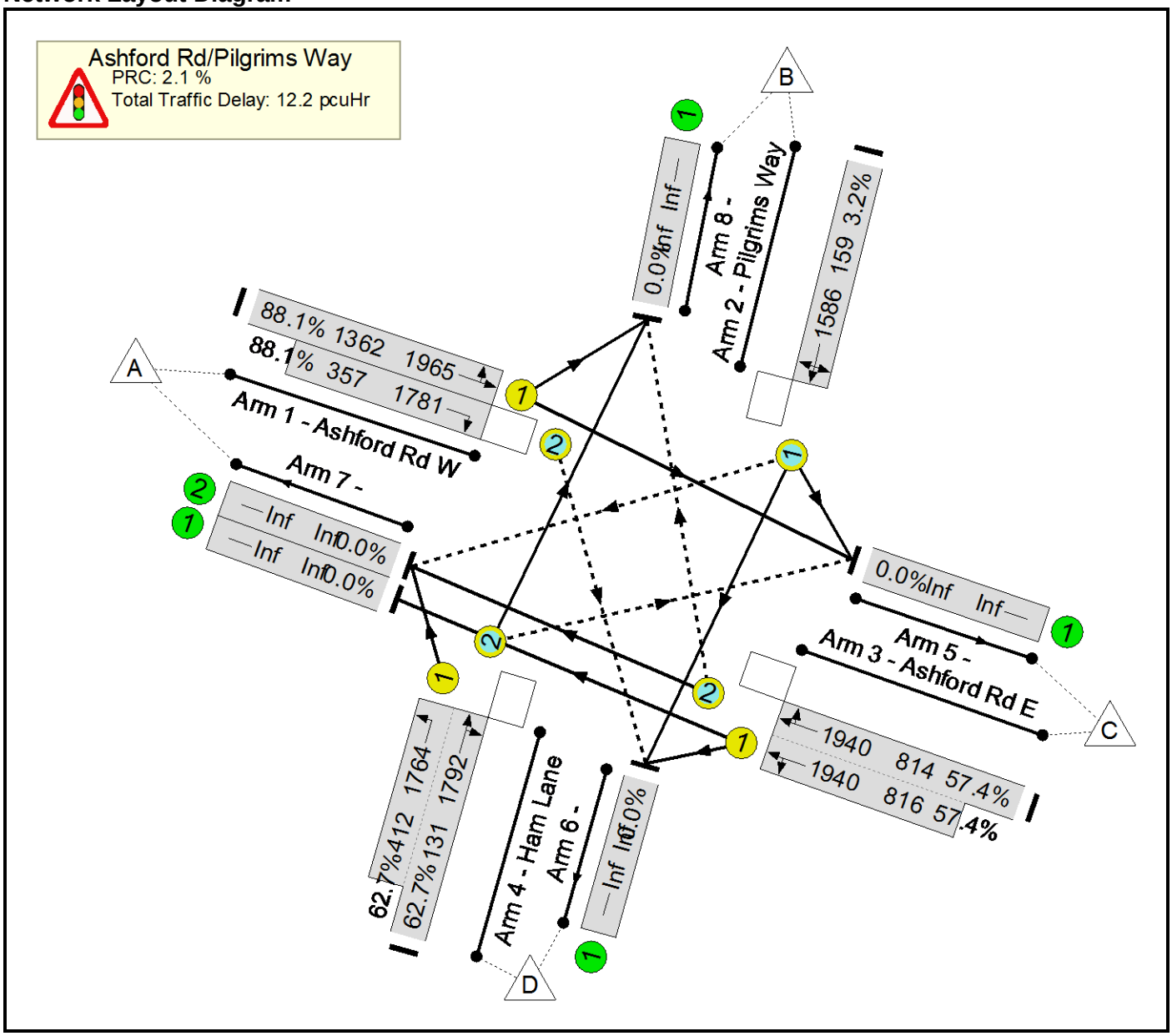
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Junction 1 Ashford Rd/Pilgrims Way with Additional Lanes	-	-	-		-	-	-	-	-	-	**84.6%**	**279**	**23**	**5**	**14.5**	-	-
Ashford Rd/Pilgrims Way	-	-	-		-	-	-	-	-	-	**84.6%**	**279**	**23**	**5**	**14.5**	-	-
1/1+1/2	Ashford Rd W Ahead Right Left	U+O	A	E	1	71	5	1004	1965:1781	1361+360	58.4 : 58.4%	182	23	5	2.0	7.0	7.3
2/1	Pilgrims Way Left Ahead Right	O	C		1	8	-	8	1650	165	4.8%	1	0	0	0.1	48.5	0.2
3/2+3/1	Ashford Rd E Left Ahead Right	O+U	B		1	59	-	1396	1940:1940	825+825	84.6 : 84.6%	0	0	0	5.7	14.7	12.9
4/2+4/1	Ham Lane Right Left Ahead	O+U	D	F	1	7:19	12	428	1792:1764	115+392	84.4 : 84.4%	96	0	0	6.7	56.4	10.5

C1 PRC for Signalled Lanes (%): 6.4 Total Delay for Signalled Lanes (pcuHr): 14.48 Cycle Time (s): 90
PRC Over All Lanes (%): 6.4 Total Delay Over All Lanes(pcuHr): 14.48

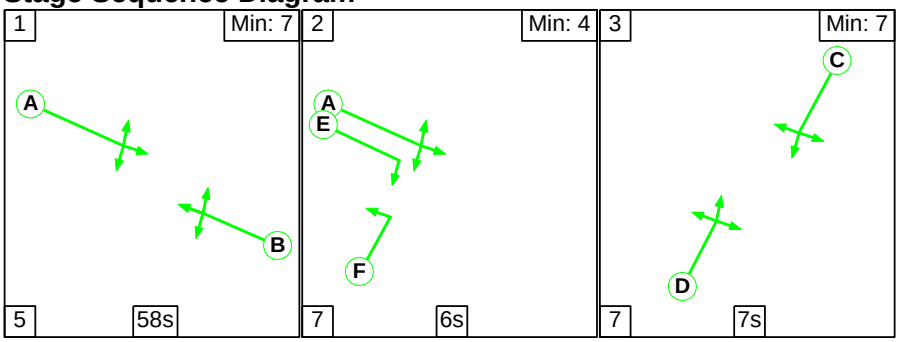
Basic Results Summary

Scenario 4: 'Option 2 PM Base 2031 + Dev' (FG4: 'Option 2 PM Base 2031 + Dev', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Stage Sequence Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Junction 1 Ashford Rd/Pilgrims Way with Additional Lanes	-	-	-		-	-	-	-	-	-	**88.1%**	**353**	**39**	**7**	**12.2**	-	-
Ashford Rd/Pilgrims Way	-	-	-		-	-	-	-	-	-	**88.1%**	**353**	**39**	**7**	**12.2**	-	-
1/1+1/2	Ashford Rd W Ahead Right Left	U+O	A	E	1	71	6	1515	1965:1781	1362+357	88.1 : 88.1%	270	39	7	5.7	13.5	18.9
2/1	Pilgrims Way Left Ahead Right	O	C		1	8	-	5	1586	159	3.2%	1	0	0	0.1	48.8	0.1
3/2+3/1	Ashford Rd E Left Ahead Right	O+U	B		1	58	-	935	1940:1940	814+816	57.4 : 57.4%	1	0	0	2.5	9.6	5.9
4/2+4/1	Ham Lane Right Left Ahead	O+U	D	F	1	7:20	13	340	1792:1764	131+412	62.7 : 62.7%	81	0	0	4.0	41.9	6.6

C1 PRC for Signalled Lanes (%): 2.1 Total Delay for Signalled Lanes (pcuHr): 12.22 Cycle Time (s): 90

PRC Over All Lanes (%): 2.1 Total Delay Over All Lanes(pcuHr): 12.22

Appendix E. Junction 4 Picady / Arcady / Linsig Outputs

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.1.4646 []
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Filename: J4 Old Ashford Road High Street Maidstone Road.j9
Path: P:\Southampton\ITW\Projects\344395 Maidstone BC Transport Planning\Lenham TMS April 2016\PICADY models for Addendum\J4 Old Ashford Road High Street Maidstone Road
Report generation date: 20/04/2016 17:15:18

»J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Base 2031, AM
»J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Base 2031, PM
»J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Option 1 Base 2031 + Dev, AM
»J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Option 1 Base 2031 +Dev, PM
»J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Option 2 Base 2031 + Dev, AM
»J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Option 2 Base 2031 +Dev, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Base 2031							
Stream B-ACD	0.6	10.90	0.38	B	0.6	11.03	0.39	B
Stream A-BCD	0.0	5.82	0.02	A	0.0	6.11	0.03	A
Stream D-AB	0.1	7.58	0.08	A	0.1	7.56	0.08	A
Stream D-BC	0.2	10.58	0.16	B	0.2	11.15	0.18	B
Stream C-ABD	0.5	8.08	0.31	A	0.5	7.53	0.30	A
	J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Option 1 Base 2031 + Dev							
Stream B-ACD	105.4	766.74	1.36	F				
Stream A-BCD	0.0	5.82	0.02	A				
Stream D-AB	0.2	9.87	0.18	A				
Stream D-BC	0.4	17.73	0.31	C				
Stream C-ABD	1.0	9.97	0.45	A				
	J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Option 1 Base 2031 +Dev							
Stream B-ACD					13.5	114.22	0.99	F
Stream A-BCD					0.1	5.94	0.04	A
Stream D-AB					0.5	13.54	0.31	B
Stream D-BC					0.7	19.44	0.42	C
Stream C-ABD					1.6	12.73	0.58	B
	J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Option 2 Base 2031 + Dev							
Stream B-ACD	780.3	6729.23	2.87	F				
Stream A-BCD	0.0	5.71	0.02	A				
Stream D-AB	168.8	9999999999.00	9999999999.00	F				
Stream D-BC	39.9	9999999999.00	9999999999.00	F				
Stream C-ABD	1.7	13.61	0.59	B				
	J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Option 2 Base 2031 +Dev							
Stream B-ACD					322.8	2869.32	2.13	F
Stream A-BCD					0.1	5.75	0.05	A
Stream D-AB					75.9	1281.64	1.58	F
Stream D-BC					15.1	1433.06	1.25	F
Stream C-ABD					10.6	61.99	0.93	F

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

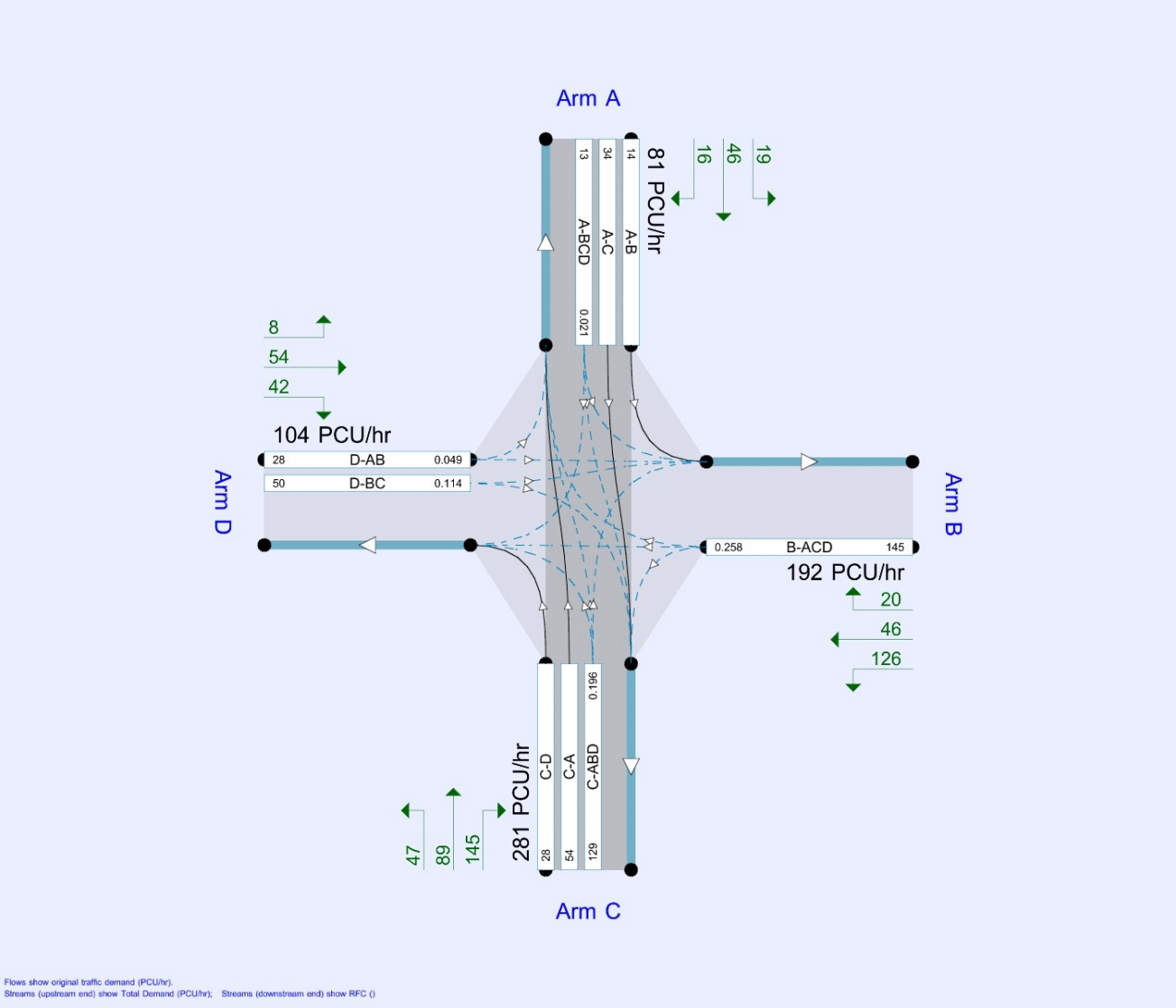
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	30/06/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MOTTMAC\rap67683
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	PCU	PCU	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	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base 2031	AM	ONE HOUR	08:00	09:30	15	✓
D2	Base 2031	PM	ONE HOUR	16:15	17:45	15	✓
D3	Option 1 Base 2031 + Dev	AM	ONE HOUR	08:00	09:30	15	✓
D4	Option 1 Base 2031 +Dev	PM	ONE HOUR	16:15	17:45	15	✓
D7	Option 2 Base 2031 + Dev	AM	ONE HOUR	08:00	09:30	15	✓
D8	Option 2 Base 2031 +Dev	PM	ONE HOUR	16:15	17:45	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road	✓	100.000	100.000

J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Base 2031, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	6.97	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Faversham Road N		Major
B	Old Ashford Road E		Minor
C	High Street S		Major
D	Maidstone Road W		Minor

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)
A	6.10			142.0	✓	0.00
C	6.10			58.0	✓	0.00

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)	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	One lane	3.16								26	36
D	One lane plus flare		10.00	2.50	2.50	2.50	2.50		1.00	95	18

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	656	-	-	-	-	-	-	0.253	0.362	0.253	-	-	-
1	B-A	512	0.093	0.235	0.235	-	-	-	0.148	0.335	-	0.235	0.235	0.117
1	B-C	657	0.100	0.253	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	512	0.093	0.235	0.235	-	-	-	0.148	0.335	0.148	-	-	-
1	B-D, offside lane	512	0.093	0.235	0.235	-	-	-	0.148	0.335	0.148	-	-	-
1	C-B	608	0.234	0.234	0.335	-	-	-	-	-	-	-	-	-
1	D-A	762	-	-	-	-	-	-	0.294	-	0.116	-	-	-
1	D-B, nearside lane	621	0.179	0.179	0.406	-	-	-	0.284	0.284	0.113	-	-	-
1	D-B, offside lane	517	0.149	0.149	0.339	-	-	-	0.237	0.237	0.094	-	-	-
1	D-C	517	-	0.149	0.339	0.118	0.237	0.237	0.237	0.237	0.094	-	-	-

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)	Run automatically
D1	Base 2031	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	96	100.000
B		ONE HOUR	✓	182	100.000
C		ONE HOUR	✓	255	100.000
D		ONE HOUR	✓	100	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	16	72	8
	B	21	0	118	43
	C	72	151	0	32
	D	15	47	38	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.17	0.75	0.08
	B	0.12	0.00	0.65	0.24
	C	0.28	0.59	0.00	0.13
	D	0.15	0.47	0.38	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	5	0
	B	6	0	0	0
	C	7	2	0	4
	D	20	3	0	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.000	1.050	1.000
	B	1.060	1.000	1.000	1.000
	C	1.070	1.020	1.000	1.040
	D	1.200	1.028	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
08:00-08:15	A	72	72
	B	137	137
	C	192	192
	D	75	75
08:15-08:30	A	86	86
	B	164	164
	C	229	229
	D	90	90
08:30-08:45	A	106	106
	B	200	200
	C	281	281
	D	110	110
08:45-09:00	A	106	106
	B	200	200
	C	281	281
	D	110	110
09:00-09:15	A	86	86
	B	164	164
	C	229	229
	D	90	90
09:15-09:30	A	72	72
	B	137	137
	C	192	192
	D	75	75

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.38	10.90	0.6	B	167	251
A-BCD	0.02	5.82	0.0	A	8	13
A-B					14	22
A-C					65	98
D-AB	0.08	7.58	0.1	A	37	56
D-BC	0.16	10.58	0.2	B	55	82
C-ABD	0.31	8.08	0.5	A	163	245
C-D					22	33
C-A					49	73

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	137	34	555	0.247	136	0.0	0.3	8.625	A
A-BCD	7	2	640	0.011	7	0.0	0.0	5.710	A
A-B	12	3			12				
A-C	54	13			54				
D-AB	30	8	598	0.050	30	0.0	0.1	6.884	A
D-BC	45	11	444	0.102	45	0.0	0.1	9.091	A
C-ABD	129	32	643	0.201	128	0.0	0.3	7.159	A
C-D	19	5			19				
C-A	43	11			43				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	164	41	546	0.300	163	0.3	0.4	9.469	A
A-BCD	8	2	637	0.013	8	0.0	0.0	5.754	A
A-B	14	4			14				
A-C	64	16			64				
D-AB	36	9	582	0.062	36	0.1	0.1	7.161	A
D-BC	54	13	429	0.125	53	0.1	0.1	9.670	A
C-ABD	159	40	650	0.244	158	0.3	0.4	7.512	A
C-D	22	5			22				
C-A	49	12			49				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	200	50	533	0.376	200	0.4	0.6	10.851	B
A-BCD	10	3	633	0.016	10	0.0	0.0	5.813	A
A-B	17	4			17				
A-C	78	19			78				
D-AB	45	11	561	0.081	45	0.1	0.1	7.578	A
D-BC	65	16	409	0.159	65	0.1	0.2	10.559	B
C-ABD	201	50	660	0.305	201	0.4	0.5	8.054	A
C-D	24	6			24				
C-A	55	14			55				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	200	50	533	0.376	200	0.6	0.6	10.897	B
A-BCD	10	3	633	0.016	10	0.0	0.0	5.820	A
A-B	17	4			17				
A-C	78	19			78				
D-AB	45	11	560	0.081	45	0.1	0.1	7.579	A
D-BC	65	16	409	0.159	65	0.2	0.2	10.576	B
C-ABD	202	50	660	0.306	202	0.5	0.5	8.078	A
C-D	24	6			24				
C-A	55	14			55				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	164	41	545	0.300	164	0.6	0.4	9.526	A
A-BCD	8	2	636	0.013	8	0.0	0.0	5.763	A
A-B	14	4			14				
A-C	64	16			64				
D-AB	36	9	582	0.063	36	0.1	0.1	7.163	A
D-BC	54	13	429	0.125	54	0.2	0.1	9.695	A
C-ABD	159	40	650	0.244	159	0.5	0.4	7.551	A
C-D	22	5			22				
C-A	49	12			49				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	137	34	554	0.247	137	0.4	0.3	8.701	A
A-BCD	7	2	639	0.011	7	0.0	0.0	5.720	A
A-B	12	3			12				
A-C	54	13			54				
D-AB	30	8	597	0.051	30	0.1	0.1	6.898	A
D-BC	45	11	444	0.102	45	0.1	0.1	9.131	A
C-ABD	130	32	643	0.202	130	0.4	0.3	7.206	A
C-D	19	5			19				
C-A	43	11			43				

J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Base 2031, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	6.99	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base 2031	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	81	100.000
B		ONE HOUR	✓	192	100.000
C		ONE HOUR	✓	281	100.000
D		ONE HOUR	✓	104	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	19	46	16
	B	20	0	126	46
	C	89	145	0	47
	D	8	54	42	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.23	0.57	0.20
	B	0.10	0.00	0.66	0.24
	C	0.32	0.52	0.00	0.17
	D	0.08	0.52	0.40	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	1	0
	C	0	1	0	0
	D	0	2	3	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.008	1.000
	C	1.000	1.008	1.000	1.000
	D	1.000	1.020	1.030	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:15-16:30	A	61	61
	B	145	145
	C	212	212
	D	78	78
16:30-16:45	A	73	73
	B	173	173
	C	253	253
	D	93	93
16:45-17:00	A	89	89
	B	211	211
	C	309	309
	D	115	115
17:00-17:15	A	89	89
	B	211	211
	C	309	309
	D	115	115
17:15-17:30	A	73	73
	B	173	173
	C	253	253
	D	93	93
17:30-17:45	A	61	61
	B	145	145
	C	212	212
	D	78	78

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.39	11.03	0.6	B	176	264
A-BCD	0.03	6.11	0.0	A	16	24
A-B					17	25
A-C					41	62
D-AB	0.08	7.56	0.1	A	35	52
D-BC	0.18	11.15	0.2	B	61	91
C-ABD	0.30	7.53	0.5	A	165	247
C-D					32	48
C-A					61	92

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	145	36	559	0.258	143	0.0	0.3	8.664	A
A-BCD	13	3	624	0.021	13	0.0	0.0	5.895	A
A-B	14	4			14				
A-C	34	8			34				
D-AB	28	7	567	0.049	28	0.0	0.1	6.777	A
D-BC	50	13	441	0.114	50	0.0	0.1	9.436	A
C-ABD	129	32	661	0.196	128	0.0	0.3	6.793	A
C-D	28	7			28				
C-A	54	13			54				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	173	43	551	0.313	172	0.3	0.5	9.539	A
A-BCD	16	4	617	0.026	16	0.0	0.0	5.984	A
A-B	17	4			17				
A-C	40	10			40				
D-AB	34	8	550	0.061	34	0.1	0.1	7.081	A
D-BC	60	15	425	0.141	60	0.1	0.2	10.095	B
C-ABD	160	40	671	0.238	159	0.3	0.4	7.077	A
C-D	32	8			32				
C-A	61	15			61				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	211	53	539	0.392	211	0.5	0.6	10.980	B
A-BCD	20	5	609	0.033	20	0.0	0.0	6.107	A
A-B	20	5			20				
A-C	49	12			49				
D-AB	42	11	526	0.080	42	0.1	0.1	7.555	A
D-BC	72	18	404	0.179	72	0.2	0.2	11.130	B
C-ABD	205	51	686	0.298	204	0.4	0.5	7.517	A
C-D	36	9			36				
C-A	69	17			69				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	211	53	539	0.392	211	0.6	0.6	11.031	B
A-BCD	20	5	609	0.033	20	0.0	0.0	6.109	A
A-B	20	5			20				
A-C	49	12			49				
D-AB	42	11	526	0.080	42	0.1	0.1	7.560	A
D-BC	72	18	404	0.179	72	0.2	0.2	11.152	B
C-ABD	205	51	686	0.298	205	0.5	0.5	7.534	A
C-D	36	9			36				
C-A	69	17			69				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	173	43	551	0.313	173	0.6	0.5	9.600	A
A-BCD	16	4	617	0.026	16	0.0	0.0	5.988	A
A-B	17	4			17				
A-C	40	10			40				
D-AB	34	8	550	0.061	34	0.1	0.1	7.090	A
D-BC	60	15	425	0.141	60	0.2	0.2	10.130	B
C-ABD	160	40	672	0.238	160	0.5	0.4	7.101	A
C-D	32	8			32				
C-A	61	15			61				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	145	36	559	0.258	145	0.5	0.4	8.745	A
A-BCD	13	3	623	0.021	13	0.0	0.0	5.900	A
A-B	14	4			14				
A-C	34	8			34				
D-AB	28	7	566	0.049	28	0.1	0.1	6.790	A
D-BC	50	13	440	0.115	51	0.2	0.1	9.483	A
C-ABD	129	32	661	0.196	130	0.4	0.3	6.830	A
C-D	28	7			28				
C-A	54	13			54				

J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Option 1 Base 2031 + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	360.24	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Option 1 Base 2031 + Dev	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	143	100.000
B		ONE HOUR	✓	563	100.000
C		ONE HOUR	✓	345	100.000
D		ONE HOUR	✓	161	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	54	79	10
	B	124	0	258	181
	C	85	211	0	49
	D	18	101	42	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.38	0.55	0.07
	B	0.22	0.00	0.46	0.32
	C	0.25	0.61	0.00	0.14
	D	0.11	0.63	0.26	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	5	0
	B	6	0	0	0
	C	7	2	0	4
	D	20	3	0	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.000	1.050	1.000
	B	1.060	1.000	1.000	1.000
	C	1.070	1.020	1.000	1.040
	D	1.200	1.028	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
08:00-08:15	A	108	108
	B	424	424
	C	260	260
	D	121	121
08:15-08:30	A	129	129
	B	506	506
	C	310	310
	D	145	145
08:30-08:45	A	157	157
	B	620	620
	C	380	380
	D	177	177
08:45-09:00	A	157	157
	B	620	620
	C	380	380
	D	177	177
09:00-09:15	A	129	129
	B	506	506
	C	310	310
	D	145	145
09:15-09:30	A	108	108
	B	424	424
	C	260	260
	D	121	121

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	1.36	766.74	105.4	F	517	775
A-BCD	0.02	5.82	0.0	A	11	17
A-B					49	73
A-C					71	107
D-AB	0.18	9.87	0.2	A	70	104
D-BC	0.31	17.73	0.4	C	78	117
C-ABD	0.45	9.97	1.0	A	240	360
C-D					28	42
C-A					49	73

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	424	106	495	0.856	405	0.0	4.6	35.666	E
A-BCD	9	2	641	0.014	9	0.0	0.0	5.716	A
A-B	40	10			40				
A-C	59	15			59				
D-AB	55	14	545	0.101	54	0.0	0.1	7.811	A
D-BC	66	17	398	0.166	66	0.0	0.2	10.942	B
C-ABD	188	47	650	0.289	186	0.0	0.5	7.941	A
C-D	26	7			26				
C-A	45	11			45				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	506	127	479	1.057	460	4.6	16.1	101.914	F
A-BCD	11	3	639	0.017	11	0.0	0.0	5.760	A
A-B	48	12			48				
A-C	70	17			70				
D-AB	67	17	520	0.129	67	0.1	0.2	8.460	A
D-BC	78	19	370	0.210	78	0.2	0.3	12.482	B
C-ABD	233	58	659	0.353	232	0.5	0.6	8.656	A
C-D	28	7			28				
C-A	49	12			49				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	620	155	457	1.357	455	16.1	57.3	307.665	F
A-BCD	14	4	637	0.022	14	0.0	0.0	5.815	A
A-B	58	15			58				
A-C	85	21			85				
D-AB	85	21	481	0.177	85	0.2	0.2	9.657	A
D-BC	92	23	324	0.285	92	0.3	0.4	15.668	C
C-ABD	298	75	671	0.445	297	0.6	0.9	9.897	A
C-D	30	7			30				
C-A	52	13			52				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	620	155	456	1.358	456	57.3	98.3	615.366	F
A-BCD	14	4	637	0.023	14	0.0	0.0	5.822	A
A-B	58	15			58				
A-C	85	21			85				
D-AB	86	22	474	0.182	86	0.2	0.2	9.868	A
D-BC	91	23	296	0.307	91	0.4	0.4	17.730	C
C-ABD	299	75	671	0.445	299	0.9	1.0	9.972	A
C-D	30	7			30				
C-A	51	13			51				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	506	127	478	1.058	478	98.3	105.4	766.739	F
A-BCD	11	3	638	0.017	11	0.0	0.0	5.775	A
A-B	48	12			48				
A-C	70	17			70				
D-AB	69	17	510	0.135	69	0.2	0.2	8.678	A
D-BC	76	19	311	0.244	76	0.4	0.3	15.571	C
C-ABD	233	58	659	0.353	234	1.0	0.7	8.751	A
C-D	28	7			28				
C-A	49	12			49				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	424	106	494	0.858	489	105.4	88.9	715.399	F
A-BCD	9	2	641	0.014	9	0.0	0.0	5.727	A
A-B	40	10			40				
A-C	59	15			59				
D-AB	56	14	538	0.104	56	0.2	0.1	7.960	A
D-BC	65	16	337	0.193	65	0.3	0.2	13.446	B
C-ABD	188	47	650	0.290	189	0.7	0.5	8.037	A
C-D	26	7			26				
C-A	45	11			45				

J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Option 1 Base 2031 +Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	43.71	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	Option 1 Base 2031 +Dev	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	180	100.000
B		ONE HOUR	✓	399	100.000
C		ONE HOUR	✓	421	100.000
D		ONE HOUR	✓	235	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	105	57	18
	B	74	0	206	119
	C	98	265	0	58
	D	9	170	56	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.58	0.32	0.10
	B	0.19	0.00	0.52	0.30
	C	0.23	0.63	0.00	0.14
	D	0.04	0.72	0.24	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	1	0
	C	0	1	0	0
	D	0	2	3	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.008	1.000
	C	1.000	1.008	1.000	1.000
	D	1.000	1.020	1.030	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:15-16:30	A	136	136
	B	300	300
	C	317	317
	D	177	177
16:30-16:45	A	162	162
	B	359	359
	C	378	378
	D	211	211
16:45-17:00	A	198	198
	B	439	439
	C	464	464
	D	259	259
17:00-17:15	A	198	198
	B	439	439
	C	464	464
	D	259	259
17:15-17:30	A	162	162
	B	359	359
	C	378	378
	D	211	211
17:30-17:45	A	136	136
	B	300	300
	C	317	317
	D	177	177

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.99	114.22	13.5	F	366	549
A-BCD	0.04	5.94	0.1	A	22	33
A-B					93	139
A-C					50	76
D-AB	0.31	13.54	0.5	B	99	149
D-BC	0.42	19.44	0.7	C	117	175
C-ABD	0.58	12.73	1.6	B	313	469
C-D					27	41
C-A					46	69

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	300	75	492	0.611	294	0.0	1.5	17.831	C
A-BCD	17	4	639	0.026	17	0.0	0.0	5.787	A
A-B	77	19			77				
A-C	42	10			42				
D-AB	78	20	485	0.161	77	0.0	0.2	8.975	A
D-BC	99	25	399	0.248	98	0.0	0.3	12.193	B
C-ABD	243	61	654	0.372	240	0.0	0.7	8.714	A
C-D	27	7			27				
C-A	46	12			46				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	359	90	472	0.760	353	1.5	2.8	29.122	D
A-BCD	21	5	636	0.033	21	0.0	0.0	5.852	A
A-B	91	23			91				
A-C	50	12			50				
D-AB	96	24	450	0.213	96	0.2	0.3	10.339	B
D-BC	115	29	371	0.311	115	0.3	0.5	14.368	B
C-ABD	303	76	664	0.456	301	0.7	1.0	9.983	A
C-D	28	7			28				
C-A	48	12			48				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	439	110	445	0.987	411	2.8	9.8	74.418	F
A-BCD	28	7	634	0.044	28	0.0	0.1	5.934	A
A-B	111	28			111				
A-C	60	15			60				
D-AB	123	31	397	0.310	122	0.3	0.4	13.316	B
D-BC	136	34	329	0.413	135	0.5	0.7	18.861	C
C-ABD	392	98	678	0.578	389	1.0	1.6	12.525	B
C-D	27	7			27				
C-A	45	11			45				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	439	110	444	0.989	425	9.8	13.5	114.223	F
A-BCD	28	7	633	0.044	28	0.1	0.1	5.943	A
A-B	111	28			111				
A-C	60	15			60				
D-AB	123	31	394	0.313	123	0.4	0.5	13.537	B
D-BC	135	34	325	0.417	135	0.7	0.7	19.437	C
C-ABD	393	98	679	0.579	392	1.6	1.6	12.729	B
C-D	26	7			26				
C-A	45	11			45				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	359	90	471	0.761	398	13.5	3.7	60.336	F
A-BCD	21	5	635	0.033	21	0.1	0.0	5.865	A
A-B	91	23			91				
A-C	50	12			50				
D-AB	96	24	447	0.216	97	0.5	0.3	10.507	B
D-BC	115	29	364	0.315	116	0.7	0.5	14.898	B
C-ABD	303	76	665	0.456	306	1.6	1.0	10.179	B
C-D	28	7			28				
C-A	47	12			47				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	300	75	491	0.612	309	3.7	1.7	20.682	C
A-BCD	17	4	637	0.026	17	0.0	0.0	5.802	A
A-B	77	19			77				
A-C	42	10			42				
D-AB	78	20	483	0.162	79	0.3	0.2	9.081	A
D-BC	99	25	396	0.249	99	0.5	0.3	12.454	B
C-ABD	244	61	655	0.372	245	1.0	0.7	8.881	A
C-D	27	7			27				
C-A	46	11			46				

J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Option 2 Base 2031 + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	9999999999.00	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Option 2 Base 2031 + Dev	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	189	100.000
B		ONE HOUR	✓	1021	100.000
C		ONE HOUR	✓	406	100.000
D		ONE HOUR	✓	222	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	100	79	10
	B	249	0	425	347
	C	85	272	0	49
	D	18	162	42	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.53	0.42	0.05
	B	0.24	0.00	0.42	0.34
	C	0.21	0.67	0.00	0.12
	D	0.08	0.73	0.19	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	5	0
	B	6	0	0	0
	C	7	2	0	4
	D	20	3	0	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.000	1.050	1.000
	B	1.060	1.000	1.000	1.000
	C	1.070	1.020	1.000	1.040
	D	1.200	1.028	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
08:00-08:15	A	142	142
	B	769	769
	C	306	306
	D	167	167
08:15-08:30	A	170	170
	B	918	918
	C	365	365
	D	200	200
08:30-08:45	A	208	208
	B	1124	1124
	C	447	447
	D	244	244
08:45-09:00	A	208	208
	B	1124	1124
	C	447	447
	D	244	244
09:00-09:15	A	170	170
	B	918	918
	C	365	365
	D	200	200
09:15-09:30	A	142	142
	B	769	769
	C	306	306
	D	167	167

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	2.87	6729.23	780.3	F	937	1405
A-BCD	0.02	5.71	0.0	A	12	19
A-B					90	135
A-C					71	107
D-AB	9999999999.00	9999999999.00	168.8	F	147	220
D-BC	9999999999.00	9999999999.00	39.9	F	57	85
C-ABD	0.59	13.61	1.7	B	310	466
C-D					23	34
C-A					39	59

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	769	192	466	1.648	460	0.0	77.1	316.468	F
A-BCD	9	2	650	0.015	9	0.0	0.0	5.647	A
A-B	74	19			74				
A-C	59	15			59				
D-AB	81	20	500	0.163	81	0.0	0.2	9999999999.000	F
D-BC	86	21	355	0.242	84	0.0	0.3	9999999999.000	F
C-ABD	243	61	642	0.378	240	0.0	0.7	9.139	A
C-D	23	6			23				
C-A	40	10			40				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	918	229	445	2.062	445	77.1	195.3	1171.717	F
A-BCD	12	3	649	0.018	12	0.0	0.0	5.675	A
A-B	88	22			88				
A-C	70	17			70				
D-AB	106	26	446	0.237	105	0.2	0.3	9999999999.000	F
D-BC	94	23	254	0.370	93	0.3	0.6	9999999999.000	F
C-ABD	301	75	650	0.463	300	0.7	1.0	10.544	B
C-D	23	6			23				
C-A	41	10			41				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	1124	281	415	2.708	415	195.3	372.5	2475.379	F
A-BCD	16	4	651	0.024	16	0.0	0.0	5.704	A
A-B	107	27			107				
A-C	85	21			85				
D-AB	198	50	20	9.918	20	0.3	45.0	9999999999.000	F
D-BC	46	12	5	9.509	5	0.6	11.0	9999999999.000	F
C-ABD	387	97	660	0.586	384	1.0	1.6	13.360	B
C-D	22	6			22				
C-A	38	10			38				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	1124	281	392	2.869	392	372.5	555.6	4260.327	F
A-BCD	16	4	650	0.024	16	0.0	0.0	5.714	A
A-B	107	27			107				
A-C	85	21			85				
D-AB	198	50	0	9999999999.000	0	45.0	94.5	9999999999.000	F
D-BC	46	12	0	9999999999.000	0	11.0	22.6	9999999999.000	F
C-ABD	387	97	660	0.586	387	1.6	1.7	13.613	B
C-D	22	5			22				
C-A	38	9			38				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	918	229	395	2.324	395	555.6	686.4	5695.317	F
A-BCD	12	3	648	0.018	12	0.0	0.0	5.695	A
A-B	88	22			88				
A-C	70	17			70				
D-AB	162	40	0	9999999999.000	0	94.5	135.0	9999999999.000	F
D-BC	38	9	0	9999999999.000	0	22.6	32.0	9999999999.000	F
C-ABD	301	75	650	0.464	304	1.7	1.0	10.793	B
C-D	23	6			23				
C-A	40	10			40				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	769	192	393	1.956	393	686.4	780.3	6729.225	F
A-BCD	10	2	648	0.015	10	0.0	0.0	5.662	A
A-B	74	19			74				
A-C	59	15			59				
D-AB	136	34	0	9999999999.000	0	135.0	168.8	9999999999.000	F
D-BC	32	8	0	9999999999.000	0	32.0	39.9	9999999999.000	F
C-ABD	244	61	643	0.379	245	1.0	0.7	9.339	A
C-D	23	6			23				
C-A	39	10			39				

J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Option 2 Base 2031 +Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	1272.94	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Option 2 Base 2031 +Dev	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	285	100.000
B		ONE HOUR	✓	641	100.000
C		ONE HOUR	✓	561	100.000
D		ONE HOUR	✓	375	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	210	57	18
	B	140	0	294	207
	C	98	405	0	58
	D	9	310	56	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.74	0.20	0.06
	B	0.22	0.00	0.46	0.32
	C	0.17	0.72	0.00	0.10
	D	0.02	0.83	0.15	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	1	0
	C	0	1	0	0
	D	0	2	3	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.008	1.000
	C	1.000	1.008	1.000	1.000
	D	1.000	1.020	1.030	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:15-16:30	A	215	215
	B	483	483
	C	422	422
	D	282	282
16:30-16:45	A	256	256
	B	576	576
	C	504	504
	D	337	337
16:45-17:00	A	314	314
	B	706	706
	C	618	618
	D	413	413
17:00-17:15	A	314	314
	B	706	706
	C	618	618
	D	413	413
17:15-17:30	A	256	256
	B	576	576
	C	504	504
	D	337	337
17:30-17:45	A	215	215
	B	483	483
	C	422	422
	D	282	282

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	2.13	2869.32	322.8	F	588	882
A-BCD	0.05	5.75	0.1	A	27	40
A-B					185	277
A-C					50	75
D-AB	1.58	1281.64	75.9	F	239	358
D-BC	1.25	1433.06	15.1	F	105	158
C-ABD	0.93	61.99	10.6	F	486	729
C-D					11	16
C-A					18	27

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	483	121	431	1.119	409	0.0	18.4	100.947	F
A-BCD	19	5	660	0.030	19	0.0	0.0	5.623	A
A-B	153	38			153				
A-C	42	10			42				
D-AB	139	35	400	0.348	137	0.0	0.5	13.854	B
D-BC	143	36	346	0.414	140	0.0	0.7	17.703	C
C-ABD	374	93	637	0.587	368	0.0	1.5	13.228	B
C-D	18	5			18				
C-A	30	8			30				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	576	144	397	1.451	396	18.4	63.4	408.953	F
A-BCD	25	6	662	0.038	25	0.0	0.1	5.654	A
A-B	181	45			181				
A-C	49	12			49				
D-AB	176	44	329	0.534	173	0.5	1.1	23.253	C
D-BC	162	40	281	0.574	159	0.7	1.3	29.563	D
C-ABD	467	117	644	0.725	462	1.5	2.8	19.592	C
C-D	14	3			14				
C-A	23	6			23				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	706	176	347	2.034	347	63.4	153.1	1157.652	F
A-BCD	35	9	669	0.053	35	0.1	0.1	5.685	A
A-B	219	55			219				
A-C	59	15			59				
D-AB	249	62	225	1.107	209	1.1	11.1	136.924	F
D-BC	164	41	150	1.093	137	1.3	8.2	198.524	F
C-ABD	608	152	655	0.929	585	2.8	8.6	44.756	E
C-D	3	0.86			3				
C-A	6	1			6				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	706	176	331	2.131	331	153.1	246.8	2187.095	F
A-BCD	36	9	662	0.054	36	0.1	0.1	5.747	A
A-B	219	55			219				
A-C	59	15			59				
D-AB	343	86	217	1.579	216	11.1	42.8	503.870	F
D-BC	70	17	58	1.217	56	8.2	11.7	835.166	F
C-ABD	615	154	659	0.933	607	8.6	10.6	61.992	F
C-D	0.98	0.25			0.98				
C-A	2	0.41			2				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	576	144	362	1.590	362	246.8	300.2	2589.208	F
A-BCD	26	6	652	0.039	26	0.1	0.1	5.754	A
A-B	181	45			181				
A-C	49	12			49				
D-AB	287	72	191	1.505	190	42.8	66.9	1021.826	F
D-BC	50	13	40	1.247	40	11.7	14.3	1278.103	F
C-ABD	475	119	652	0.729	504	10.6	3.4	28.769	D
C-D	11	3			11				
C-A	19	5			19				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-ACD	483	121	392	1.230	392	300.2	322.8	2869.324	F
A-BCD	20	5	656	0.030	20	0.1	0.0	5.661	A
A-B	153	38			153				
A-C	42	10			42				
D-AB	240	60	204	1.175	204	66.9	75.9	1281.640	F
D-BC	42	11	40	1.053	39	14.3	15.1	1433.063	F
C-ABD	376	94	639	0.589	383	3.4	1.7	14.576	B
C-D	17	4			17				
C-A	29	7			29				

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.1.4646 []
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Filename: J4 Old Ashford Road High Street Maidstone Road.j9
Path: P:\Southampton\ITW\Projects\344395 Maidstone BC Transport Planning\Lenham TMS April 2016\Mini rbt options\J4 Old Ashford Road High Street Maidstone Road
Report generation date: 04/05/2016 12:45:41

»J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Option 1 Base 2031 + Dev, AM
»J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Option 1 Base 2031 +Dev, PM
»J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Option 2 Base 2031 + Dev, AM
»J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Option 2 Base 2031 +Dev, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Option 1 Base 2031 + Dev							
Arm A	0.3	7.28	0.24	A				
Arm B	3.3	19.88	0.77	C				
Arm C	2.6	25.18	0.72	D				
Arm D	0.5	10.19	0.33	B				
	J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Option 1 Base 2031 +Dev							
Arm A					0.5	9.59	0.35	A
Arm B					1.2	9.96	0.55	A
Arm C					3.3	27.01	0.78	D
Arm D					1.0	13.38	0.49	B
	J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Option 2 Base 2031 + Dev							
Arm A	0.6	9.63	0.35	A				
Arm B	222.2	936.96	1.40	F				
Arm C	15.2	126.70	1.00	F				
Arm D	1.1	15.95	0.52	C				
	J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Option 2 Base 2031 +Dev							
Arm A					2.3	27.80	0.71	D
Arm B					6.4	34.58	0.88	D
Arm C					69.6	452.78	1.25	F
Arm D					6.3	59.26	0.89	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.

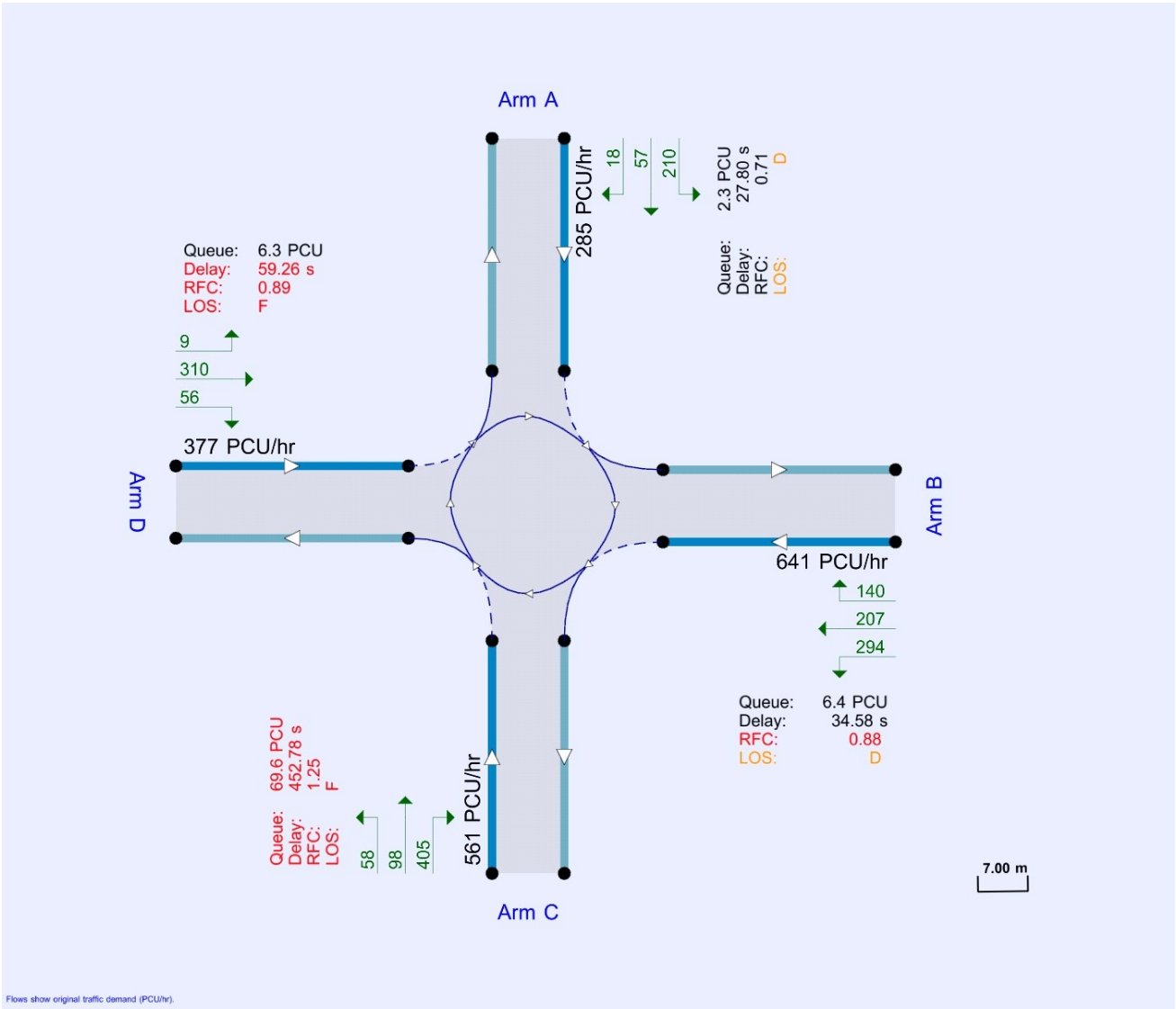
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	30/06/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MOTTMAC\rap67683
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	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Option 1 Base 2031 + Dev	AM	ONE HOUR	08:00	09:30	15	✓
D2	Option 1 Base 2031 +Dev	PM	ONE HOUR	16:15	17:45	15	✓
D3	Option 2 Base 2031 + Dev	AM	ONE HOUR	08:00	09:30	15	✓
D4	Option 2 Base 2031 +Dev	PM	ONE HOUR	16:15	17:45	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road	✓	100.000	100.000

J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Option 1 Base 2031 + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms B and C have 74% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	A,B,C,D	18.59	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
A	Faversham Road N	
B	Old Ashford Road E	
C	High Street S	
D	Maidstone Road W	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.15	3.15	3.94	3.0	11.11	7.00	0.0	
B	5.23	3.70	3.70	0.0	13.00	10.44	0.0	
C	3.79	2.83	3.82	1.8	9.19	5.82	0.0	
D	3.06	2.31	3.90	2.4	15.50	12.05	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.612	906
B	0.619	893
C	0.597	735
D	0.589	819

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Option 1 Base 2031 + Dev	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	143	100.000
B		ONE HOUR	✓	563	100.000
C		ONE HOUR	✓	345	100.000
D		ONE HOUR	✓	164	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	54	79	10
	B	124	0	258	181
	C	85	211	0	49
	D	18	101	42	3

Proportions

		To			
		A	B	C	D
From	A	0.00	0.38	0.55	0.07
	B	0.22	0.00	0.46	0.32
	C	0.25	0.61	0.00	0.14
	D	0.11	0.62	0.26	0.02

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	5	0
	B	6	0	0	0
	C	7	2	0	4
	D	20	3	0	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.000	1.050	1.000
	B	1.060	1.000	1.000	1.000
	C	1.070	1.020	1.000	1.040
	D	1.200	1.028	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
08:00-08:15	A	108	108
	B	424	424
	C	260	260
	D	123	123
08:15-08:30	A	129	129
	B	506	506
	C	310	310
	D	147	147
08:30-08:45	A	157	157
	B	620	620
	C	380	380
	D	181	181
08:45-09:00	A	157	157
	B	620	620
	C	380	380
	D	181	181
09:00-09:15	A	129	129
	B	506	506
	C	310	310
	D	147	147
09:15-09:30	A	108	108
	B	424	424
	C	260	260
	D	123	123

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.24	7.28	0.3	A	131	197
B	0.77	19.88	3.3	C	517	775
C	0.72	25.18	2.6	D	317	475
D	0.33	10.19	0.5	B	150	226

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	108	27	266	743	0.145	107	169	0.0	0.2	5.810	A
B	424	106	100	831	0.510	420	273	0.0	1.0	8.786	A
C	260	65	237	593	0.438	257	283	0.0	0.8	10.959	B
D	123	31	313	634	0.195	122	181	0.0	0.2	7.274	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	129	32	320	710	0.181	128	203	0.2	0.2	6.357	A
B	506	127	120	818	0.619	504	328	1.0	1.6	11.513	B
C	310	78	285	565	0.549	308	339	0.8	1.2	14.416	B
D	147	37	376	597	0.247	147	217	0.2	0.3	8.278	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	157	39	390	667	0.236	157	247	0.2	0.3	7.245	A
B	620	155	147	802	0.773	614	399	1.6	3.2	18.763	C
C	380	95	347	528	0.719	375	414	1.2	2.4	23.605	C
D	181	45	457	550	0.329	180	265	0.3	0.5	10.076	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	157	39	393	665	0.237	157	250	0.3	0.3	7.282	A
B	620	155	148	801	0.774	619	403	3.2	3.3	19.881	C
C	380	95	350	526	0.722	379	417	2.4	2.6	25.180	D
D	181	45	462	547	0.330	181	267	0.5	0.5	10.191	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	129	32	325	707	0.182	129	207	0.3	0.2	6.403	A
B	506	127	121	818	0.619	513	333	3.3	1.7	12.180	B
C	310	78	289	562	0.552	315	344	2.6	1.3	15.361	C
D	147	37	383	593	0.249	148	221	0.5	0.3	8.399	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	108	27	270	740	0.145	108	172	0.2	0.2	5.852	A
B	424	106	101	830	0.511	426	277	1.7	1.1	9.083	A
C	260	65	241	591	0.439	262	287	1.3	0.8	11.368	B
D	123	31	318	631	0.196	124	184	0.3	0.3	7.362	A

J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Option 1 Base 2031 +Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	A,B,C,D	16.36	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Option 1 Base 2031 +Dev	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	180	100.000
B		ONE HOUR	✓	399	100.000
C		ONE HOUR	✓	421	100.000
D		ONE HOUR	✓	237	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	105	57	18
	B	74	0	206	119
	C	98	265	0	58
	D	9	170	56	2

Proportions

		To			
		A	B	C	D
From	A	0.00	0.58	0.32	0.10
	B	0.19	0.00	0.52	0.30
	C	0.23	0.63	0.00	0.14
	D	0.04	0.72	0.24	0.01

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	1	0
	C	0	1	0	0
	D	0	2	3	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.008	1.000
	C	1.000	1.008	1.000	1.000
	D	1.000	1.020	1.030	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:15-16:30	A	136	136
	B	300	300
	C	317	317
	D	178	178
16:30-16:45	A	162	162
	B	359	359
	C	378	378
	D	213	213
16:45-17:00	A	198	198
	B	439	439
	C	464	464
	D	261	261
17:00-17:15	A	198	198
	B	439	439
	C	464	464
	D	261	261
17:15-17:30	A	162	162
	B	359	359
	C	378	378
	D	213	213
17:30-17:45	A	136	136
	B	300	300
	C	317	317
	D	178	178

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.35	9.59	0.5	A	165	248
B	0.55	9.96	1.2	A	366	549
C	0.78	27.01	3.3	D	386	579
D	0.49	13.38	1.0	B	217	326

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	136	34	367	681	0.199	135	135	0.0	0.2	6.579	A
B	300	75	99	831	0.361	298	402	0.0	0.6	6.753	A
C	317	79	159	640	0.495	313	238	0.0	1.0	10.945	B
D	178	45	325	627	0.285	177	147	0.0	0.4	8.142	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	162	40	441	635	0.255	161	162	0.2	0.3	7.584	A
B	359	90	119	819	0.438	358	483	0.6	0.8	7.826	A
C	378	95	191	621	0.609	376	286	1.0	1.5	14.651	B
D	213	53	391	588	0.362	212	177	0.4	0.6	9.761	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	198	50	537	577	0.344	197	197	0.3	0.5	9.478	A
B	439	110	146	802	0.547	438	589	0.8	1.2	9.863	A
C	464	116	234	596	0.778	457	350	1.5	3.2	24.966	C
D	261	65	475	539	0.484	259	215	0.6	0.9	13.099	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	198	50	542	573	0.346	198	199	0.5	0.5	9.590	A
B	439	110	146	802	0.548	439	594	1.2	1.2	9.959	A
C	464	116	234	595	0.779	463	351	3.2	3.3	27.015	D
D	261	65	481	536	0.487	261	217	0.9	1.0	13.375	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	162	40	449	631	0.257	163	165	0.5	0.3	7.701	A
B	359	90	120	818	0.438	360	491	1.2	0.8	7.921	A
C	378	95	192	620	0.610	385	288	3.3	1.6	15.811	C
D	213	53	399	584	0.365	214	179	1.0	0.6	10.001	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	136	34	373	677	0.200	136	137	0.3	0.3	6.658	A
B	300	75	100	830	0.362	301	409	0.8	0.6	6.844	A
C	317	79	161	639	0.496	319	241	1.6	1.0	11.408	B
D	178	45	331	623	0.286	179	149	0.6	0.4	8.289	A

J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Option 2 Base 2031 + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms B and C have 77% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	A,B,C,D	550.50	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Option 2 Base 2031 + Dev	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	189	100.000
B		ONE HOUR	✓	1021	100.000
C		ONE HOUR	✓	406	100.000
D		ONE HOUR	✓	225	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	100	79	10
	B	249	0	425	347
	C	85	272	0	49
	D	18	162	42	3

Proportions

		To			
		A	B	C	D
From	A	0.00	0.53	0.42	0.05
	B	0.24	0.00	0.42	0.34
	C	0.21	0.67	0.00	0.12
	D	0.08	0.72	0.19	0.01

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	5	0
	B	6	0	0	0
	C	7	2	0	4
	D	20	3	0	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.000	1.050	1.000
	B	1.060	1.000	1.000	1.000
	C	1.070	1.020	1.000	1.040
	D	1.200	1.028	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
08:00-08:15	A	142	142
	B	769	769
	C	306	306
	D	169	169
08:15-08:30	A	170	170
	B	918	918
	C	365	365
	D	202	202
08:30-08:45	A	208	208
	B	1124	1124
	C	447	447
	D	248	248
08:45-09:00	A	208	208
	B	1124	1124
	C	447	447
	D	248	248
09:00-09:15	A	170	170
	B	918	918
	C	365	365
	D	202	202
09:15-09:30	A	142	142
	B	769	769
	C	306	306
	D	169	169

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.35	9.63	0.6	A	173	260
B	1.40	936.96	222.2	F	937	1405
C	1.00	126.70	15.2	F	373	559
D	0.52	15.95	1.1	C	206	310

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	142	36	354	689	0.207	141	256	0.0	0.3	6.698	A
B	769	192	100	831	0.925	737	395	0.0	8.0	32.192	D
C	306	76	440	472	0.647	299	397	0.0	1.8	20.642	C
D	169	42	442	558	0.304	168	296	0.0	0.4	9.491	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	170	42	424	646	0.263	170	288	0.3	0.4	7.708	A
B	918	229	120	818	1.122	807	474	8.0	35.6	112.408	F
C	365	91	483	447	0.817	357	444	1.8	3.8	38.261	E
D	202	51	511	518	0.391	201	329	0.4	0.6	11.735	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	208	52	507	595	0.350	207	303	0.4	0.5	9.449	A
B	1124	281	147	802	1.402	801	567	35.6	116.4	351.328	F
C	447	112	482	447	1.000	418	466	3.8	11.0	83.471	F
D	248	62	563	487	0.509	246	337	0.6	1.0	15.356	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	208	52	516	590	0.353	208	305	0.5	0.6	9.625	A
B	1124	281	147	801	1.403	801	577	116.4	197.1	705.178	F
C	447	112	482	447	1.000	430	467	11.0	15.2	126.701	F
D	248	62	574	481	0.515	248	339	1.0	1.1	15.948	C

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	170	42	456	626	0.271	171	300	0.6	0.4	8.070	A
B	918	229	121	818	1.122	818	505	197.1	222.2	922.384	F
C	365	91	489	443	0.824	401	450	15.2	6.2	93.457	F
D	202	51	552	493	0.410	204	338	1.1	0.7	12.903	B

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	142	36	371	678	0.210	143	282	0.4	0.3	6.865	A
B	769	192	101	830	0.926	826	413	222.2	207.8	936.955	F
C	306	76	492	441	0.693	320	435	6.2	2.5	33.716	D
D	169	42	483	534	0.317	170	329	0.7	0.5	10.266	B

J4 Faversham Road/Old Ashford Road/High Street/Maidstone Road - Option 2 Base 2031 +Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	A,B,C,D	164.40	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	Option 2 Base 2031 +Dev	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	285	100.000
B		ONE HOUR	✓	641	100.000
C		ONE HOUR	✓	561	100.000
D		ONE HOUR	✓	377	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	210	57	18
	B	140	0	294	207
	C	98	405	0	58
	D	9	310	56	2

Proportions

		To			
		A	B	C	D
From	A	0.00	0.74	0.20	0.06
	B	0.22	0.00	0.46	0.32
	C	0.17	0.72	0.00	0.10
	D	0.02	0.82	0.15	0.01

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	1	0
	C	0	1	0	0
	D	0	2	3	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.008	1.000
	C	1.000	1.008	1.000	1.000
	D	1.000	1.020	1.030	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:15-16:30	A	215	215
	B	483	483
	C	422	422
	D	284	284
16:30-16:45	A	256	256
	B	576	576
	C	504	504
	D	339	339
16:45-17:00	A	314	314
	B	706	706
	C	618	618
	D	415	415
17:00-17:15	A	314	314
	B	706	706
	C	618	618
	D	415	415
17:15-17:30	A	256	256
	B	576	576
	C	504	504
	D	339	339
17:30-17:45	A	215	215
	B	483	483
	C	422	422
	D	284	284

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.71	27.80	2.3	D	262	392
B	0.88	34.58	6.4	D	588	882
C	1.25	452.78	69.6	F	515	772
D	0.89	59.26	6.3	F	346	519

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	215	54	570	556	0.386	212	183	0.0	0.6	10.384	B
B	483	121	99	831	0.580	477	683	0.0	1.4	10.051	B
C	422	106	273	572	0.739	412	303	0.0	2.6	21.455	C
D	284	71	474	540	0.526	279	212	0.0	1.1	13.905	B

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	256	64	676	491	0.521	254	218	0.6	1.1	15.081	C
B	576	144	118	819	0.703	573	812	1.4	2.3	14.424	B
C	504	126	328	539	0.935	484	363	2.6	7.6	52.466	F
D	339	85	559	489	0.693	335	253	1.1	2.1	23.180	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	314	78	749	447	0.702	309	247	1.1	2.2	25.323	D
B	706	176	143	804	0.878	692	915	2.3	5.7	29.112	D
C	618	154	396	498	1.239	494	439	7.6	38.6	187.754	F
D	415	104	594	469	0.885	402	296	2.1	5.5	47.220	E

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	314	78	758	441	0.711	313	250	2.2	2.3	27.799	D
B	706	176	146	802	0.880	703	926	5.7	6.4	34.579	D
C	618	154	403	495	1.249	494	446	38.6	69.6	400.128	F
D	415	104	596	467	0.888	412	300	5.5	6.3	59.262	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	256	64	723	463	0.554	260	229	2.3	1.3	18.116	C
B	576	144	123	817	0.706	592	861	6.4	2.5	17.008	C
C	504	126	339	533	0.946	525	376	69.6	64.4	452.781	F
D	339	85	600	465	0.729	352	264	6.3	3.0	35.383	E

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	215	54	686	485	0.442	216	211	1.3	0.8	13.484	B
B	483	121	101	830	0.582	487	801	2.5	1.4	10.670	B
C	422	106	279	569	0.743	560	310	64.4	30.0	307.762	F
D	284	71	608	460	0.617	289	230	3.0	1.7	22.054	C

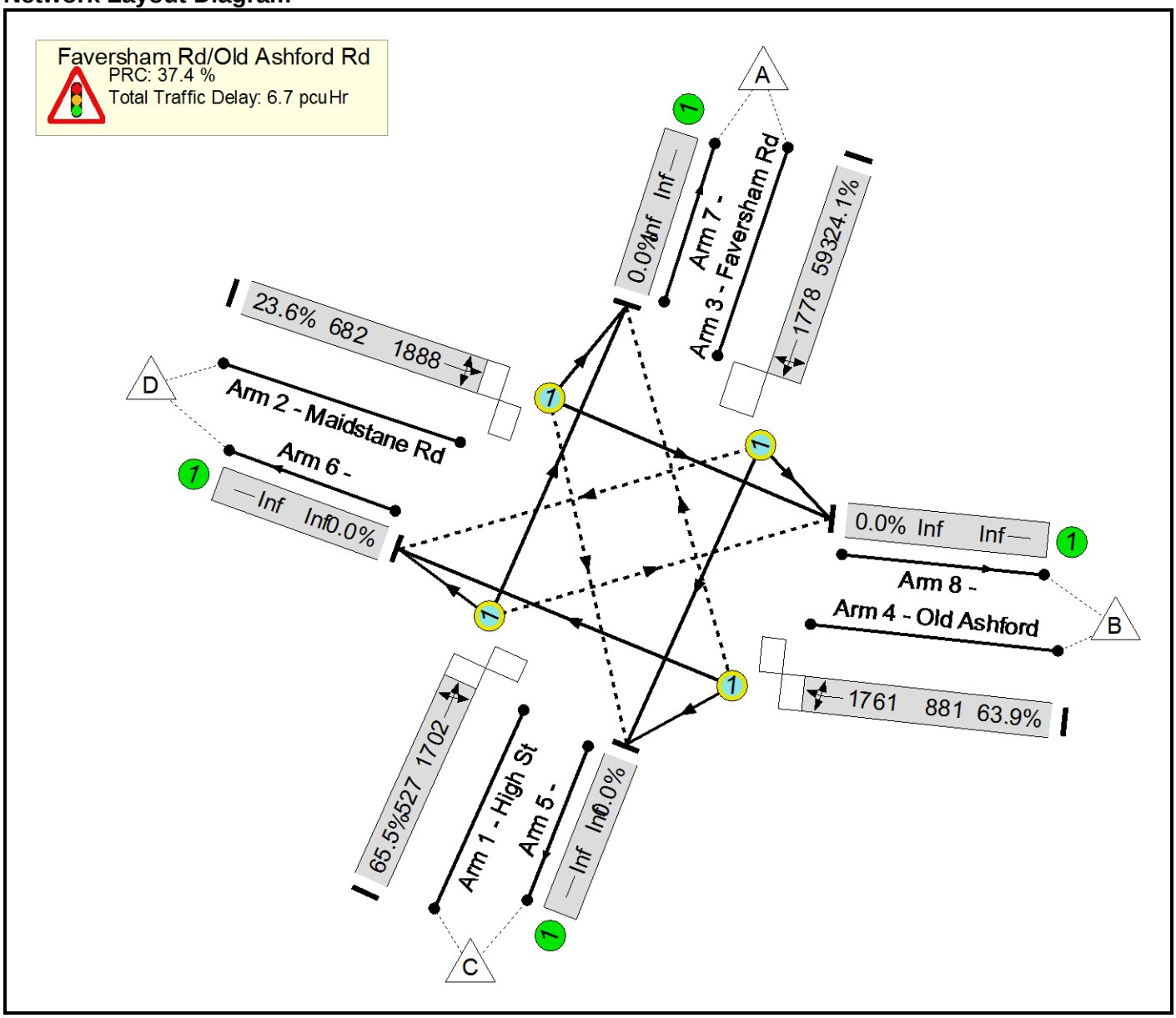
Basic Results Summary

User and Project Details

Project:	**Lenham**
Title:	**Junction 4 Faversham Rd/Old Ashford Rd**
Location:	Maidstone
File name:	Faversham Rd_Old Ashford Rd.lsg3x
Author:	David Parkin
Company:	Mott MacDonald
Address:	Stoneham Place, Stoneham Lane, Southampton
Notes:	

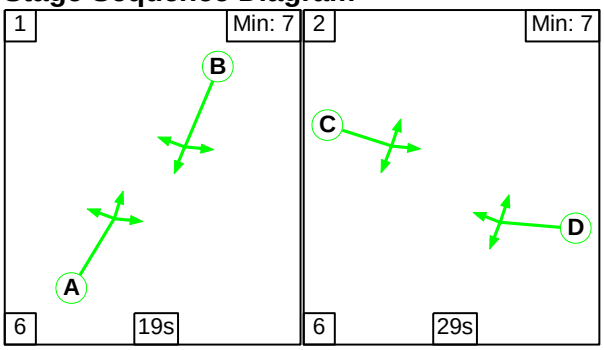
Scenario 1: 'Option 1 AM Base 2031 + Dev' (FG1: 'Option 1 AM Base 2031 + Dev', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Stage Sequence Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Junction 4 Faversham Rd/Old Ashford Rd	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**65.5%**	**381**	**0**	**6**	**6.7**	**-**	**-**
Faversham Rd/Old Ashford Rd	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**65.5%**	**381**	**0**	**6**	**6.7**	**-**	**-**
1/1	High St Left Ahead Right	O	A		1	19	-	345	1702	527	65.5%	207	0	4	2.7	28.2	5.8
2/1	Maidstane Rd Right Left Ahead	O	C		1	29	-	161	1888	682	23.6%	41	0	1	0.6	13.2	1.6
3/1	Faversham Rd Ahead Right Left	O	B		1	19	-	143	1778	593	24.1%	10	0	0	0.7	18.6	1.9
4/1	Old Ashford Left Ahead Right	O	D		1	29	-	563	1761	881	63.9%	122	0	2	2.6	16.8	7.8

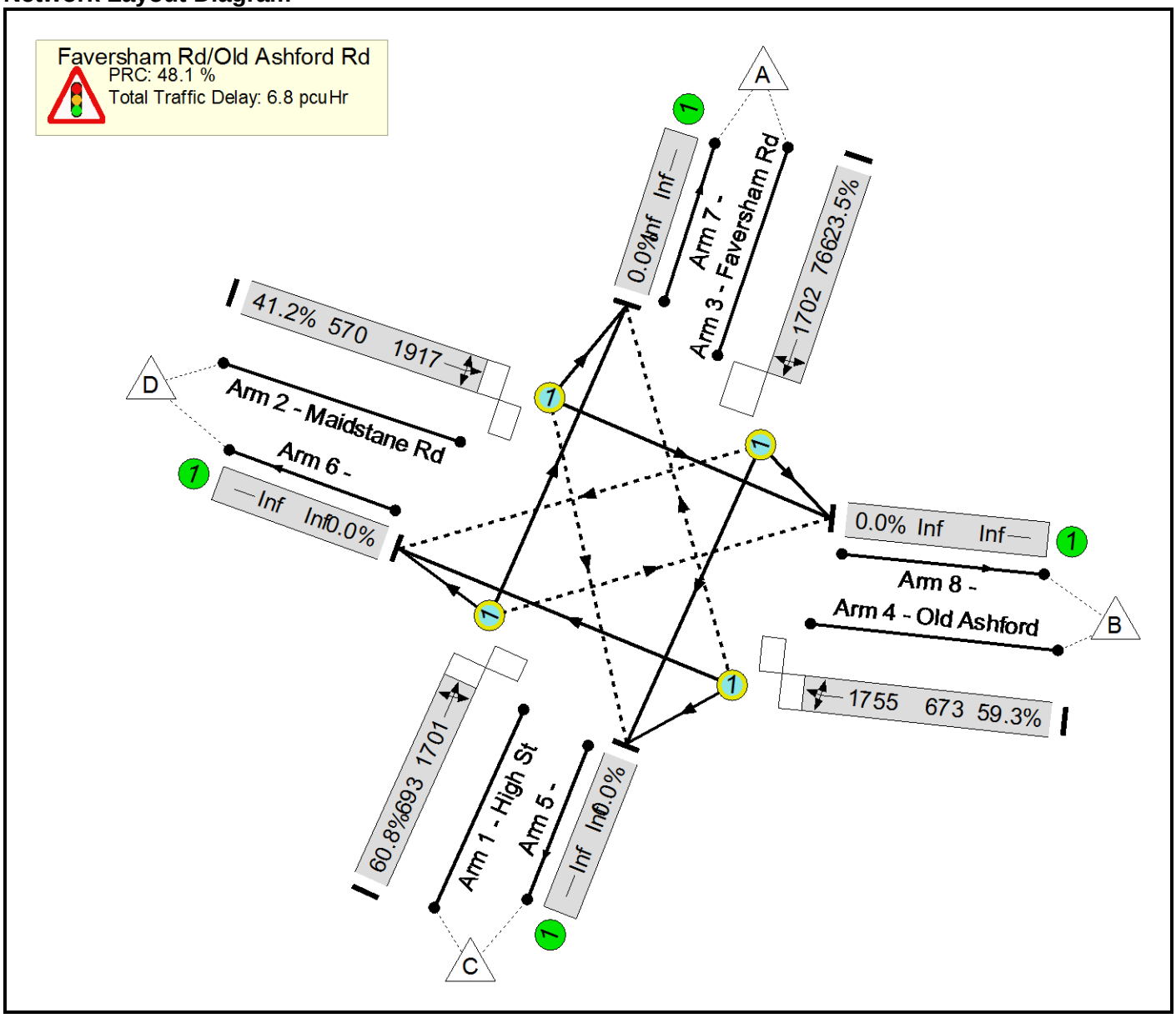
C1 PRC for Signalled Lanes (%): 37.4 Total Delay for Signalled Lanes (pcuHr): 6.65 Cycle Time (s): 60

PRC Over All Lanes (%): 37.4 Total Delay Over All Lanes(pcuHr): 6.65

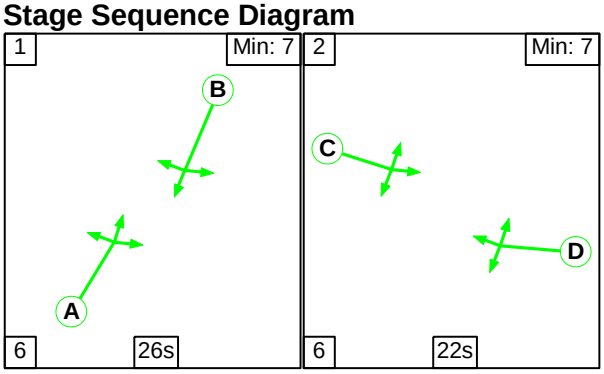
Basic Results Summary

Scenario 2: 'Option 1 PM Base 2031 + Dev' (FG2: 'Option 1 PM Base 2031 + Dev', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Stage Sequence Diagram



Basic Results Summary

Network Results

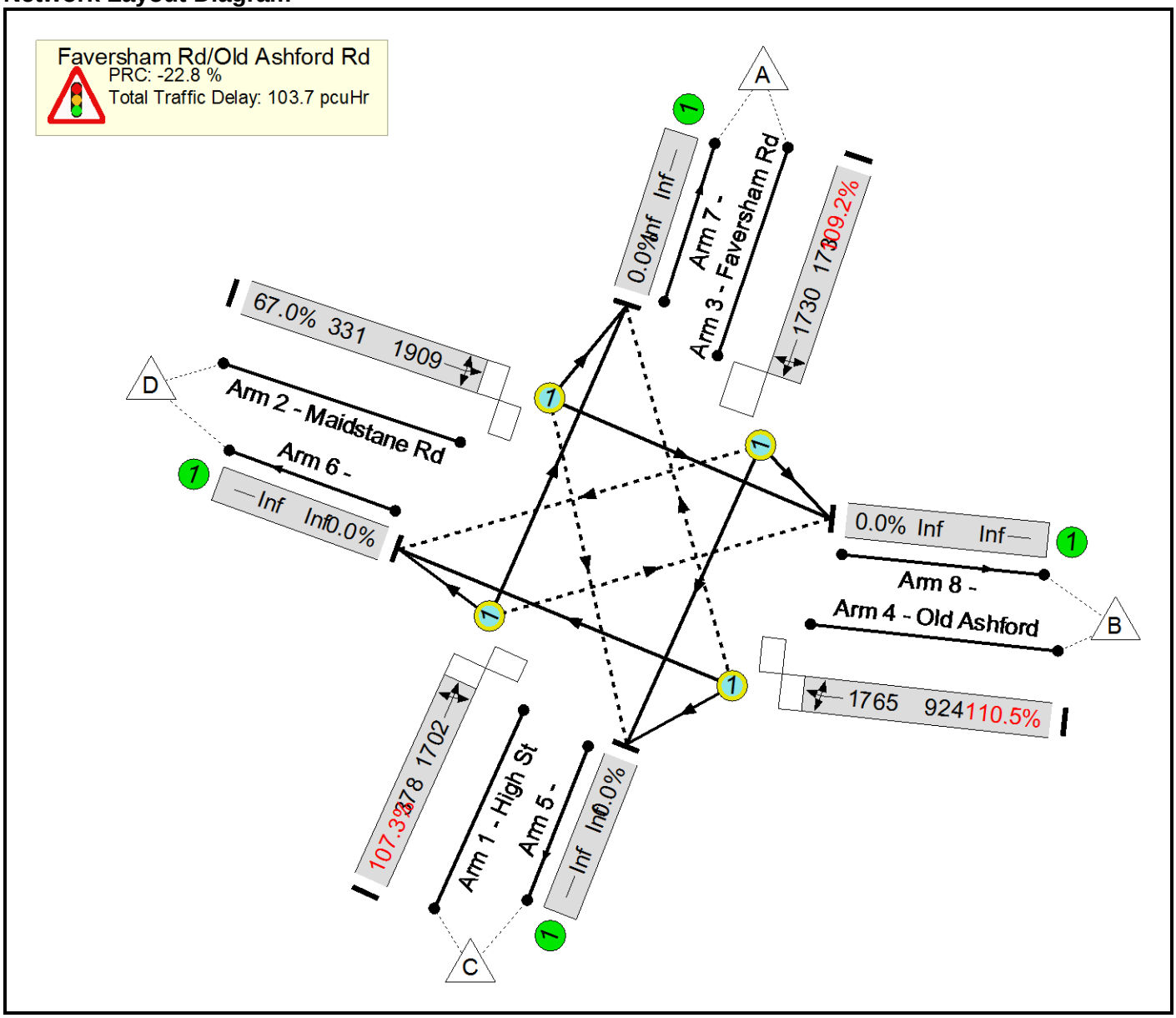
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Junction 4 Faversham Rd/Old Ashford Rd	-	-	-		-	-	-	-	-	-	**60.8%**	**406**	**0**	**7**	**6.8**	-	-
Faversham Rd/Old Ashford Rd	-	-	-		-	-	-	-	-	-	**60.8%**	**406**	**0**	**7**	**6.8**	-	-
1/1	High St Left Ahead Right	O	A		1	26	-	421	1701	693	60.8%	261	0	4	2.4	20.5	6.3
2/1	Maidstane Rd Right Left Ahead	O	C		1	22	-	235	1917	570	41.2%	55	0	1	1.3	19.9	3.1
3/1	Faversham Rd Ahead Right Left	O	B		1	26	-	180	1702	766	23.5%	18	0	0	0.7	13.3	2.0
4/1	Old Ashford Left Ahead Right	O	D		1	22	-	399	1755	673	59.3%	73	0	1	2.4	21.6	5.9

C1	PRC for Signalled Lanes (%):	48.1	Total Delay for Signalled Lanes (pcuHr):	6.76	Cycle Time (s):	60	
	PRC Over All Lanes (%):	48.1	Total Delay Over All Lanes(pcuHr):	6.76			

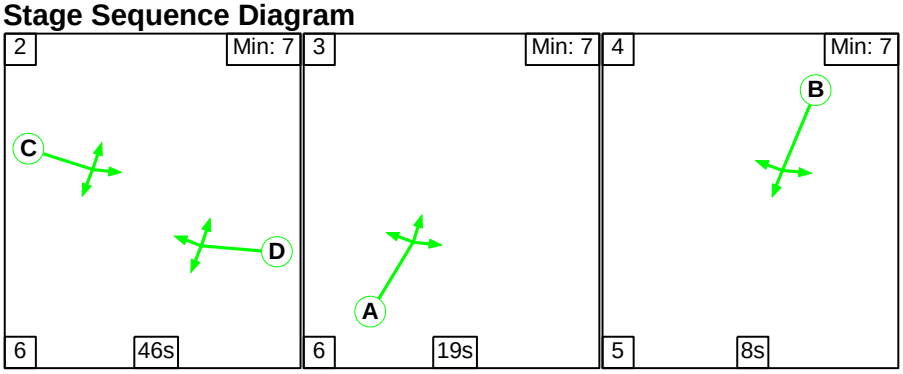
Basic Results Summary

Scenario 3: 'Option 2 AM Base 2031 + Dev' (FG3: 'Option 2 AM Base 2031 + Dev', Plan 2: 'Network Control Plan 2')

Network Layout Diagram



Stage Sequence Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Junction 4 Faversham Rd/Old Ashford Rd	-	-	-		-	-	-	-	-	-	**110.5%**	**239**	**229**	**66**	**103.7**	-	-
Faversham Rd/Old Ashford Rd	-	-	-		-	-	-	-	-	-	**110.5%**	**239**	**229**	**66**	**103.7**	-	-
1/1	High St Left Ahead Right	O	A		1	19	-	406	1702	378	107.3%	0	222	32	24.0	212.9	30.0
2/1	Maidstane Rd Right Left Ahead	O	C		1	46	-	222	1909	331	67.0%	15	0	27	1.9	31.4	4.0
3/1	Faversham Rd Ahead Right Left	O	B		1	8	-	189	1730	173	109.2%	0	7	2	14.9	283.6	17.3
4/1	Old Ashford Left Ahead Right	O	D		1	47	-	1021	1765	924	110.5%	225	0	5	62.9	221.7	81.1

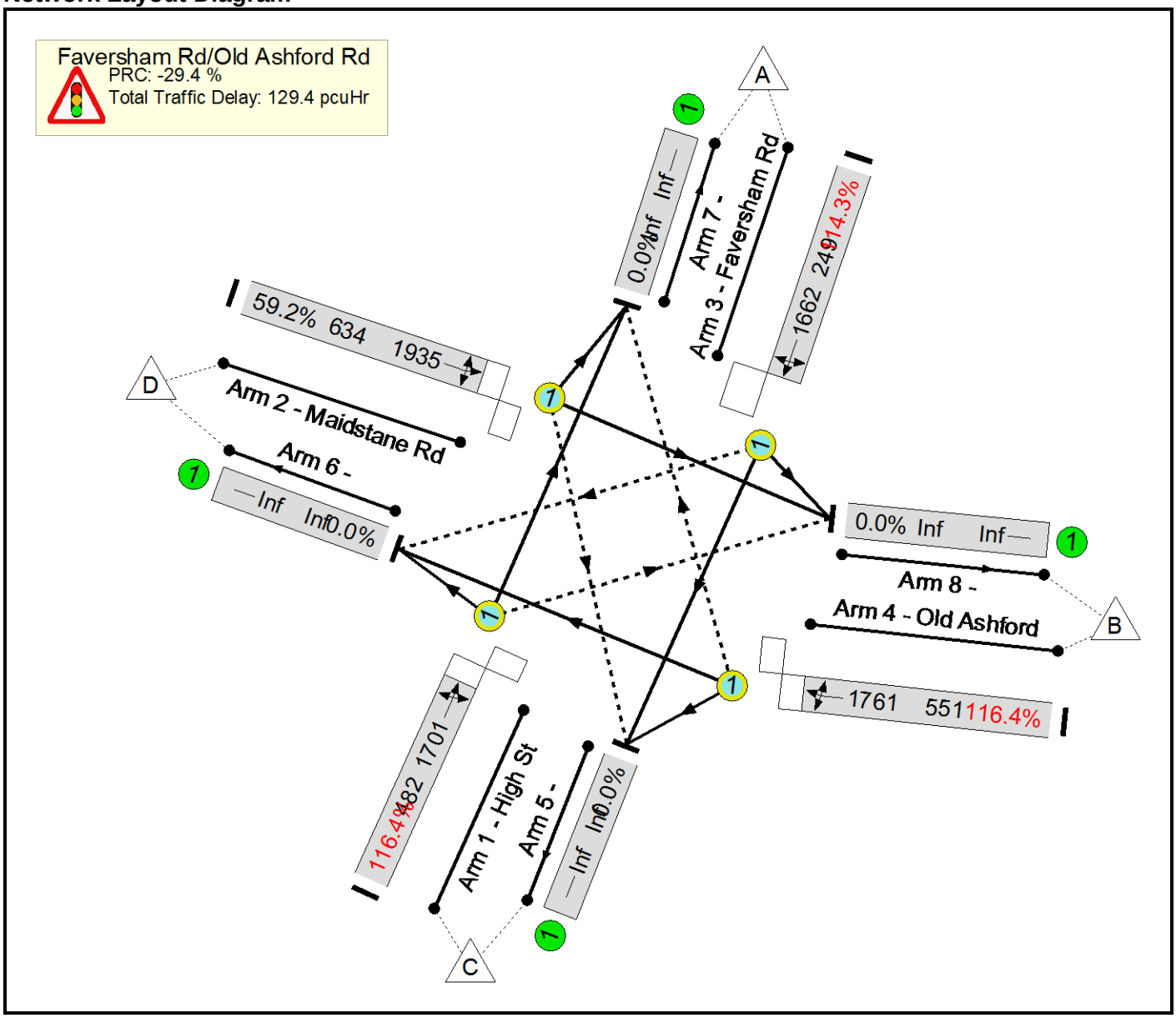
C1 PRC for Signalled Lanes (%): -22.8 Total Delay for Signalled Lanes (pcuHr): 103.72 Cycle Time (s): 90

PRC Over All Lanes (%): -22.8 Total Delay Over All Lanes(pcuHr): 103.72

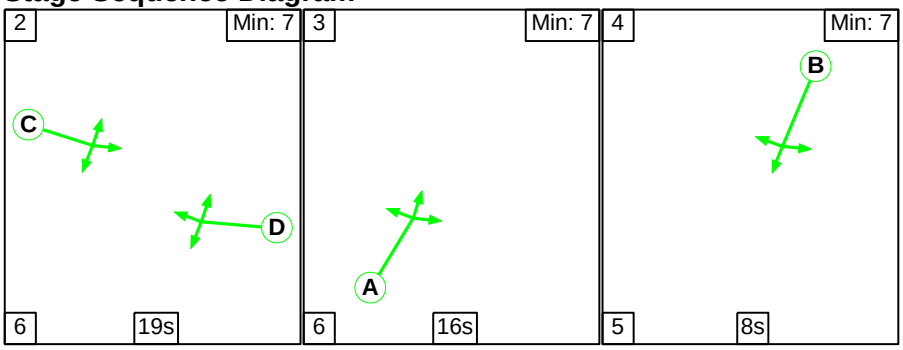
Basic Results Summary

Scenario 4: 'Option 2 PM Base 2031 + Dev' (FG4: 'Option 2 PM Base 2031 + Dev', Plan 2: 'Network Control Plan 2')

Network Layout Diagram



Stage Sequence Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Junction 4 Faversham Rd/Old Ashford Rd	-	-	-		-	-	-	-	-	-	**116.4%**	**151**	**316**	**73**	**129.4**	-	-
Faversham Rd/Old Ashford Rd	-	-	-		-	-	-	-	-	-	**116.4%**	**151**	**316**	**73**	**129.4**	-	-
1/1	High St Left Ahead Right	O	A		1	16	-	561	1701	482	116.4%	0	304	44	47.9	307.4	53.5
2/1	Maidstane Rd Right Left Ahead	O	C		1	19	-	375	1935	634	59.2%	37	0	19	2.5	24.3	5.8
3/1	Faversham Rd Ahead Right Left	O	B		1	8	-	285	1662	249	114.3%	0	12	3	24.4	308.7	26.9
4/1	Old Ashford Left Ahead Right	O	D		1	20	-	641	1761	551	116.4%	114	0	6	54.5	306.1	60.6

C1 PRC for Signalled Lanes (%): -29.4 Total Delay for Signalled Lanes (pcuHr): 129.37 Cycle Time (s): 60

PRC Over All Lanes (%): -29.4 Total Delay Over All Lanes(pcuHr): 129.37

Appendix F. Junction 5 Picady / Arcady / Linsig Outputs

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.1.4646 []
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Filename: J5 Ashford Road Old Ashford Road.j9
Path: P:\Southampton\ITW\Projects\344395 Maidstone BC Transport Planning\Lenham TMS April 2016\PICADY models for Addendum\J5 Ashford Road Old Ashford Road
Report generation date: 20/04/2016 17:17:16

»J5 Ashford Road/Old Ashford Road - Base 2031, AM
»J5 Ashford Road/Old Ashford Road - Base 2031, PM
»J5 Ashford Road/Old Ashford Road - Option 1 Base 2031 + Dev, AM
»J5 Ashford Road/Old Ashford Road - Option 1 Base 2031 + Dev, PM
»J5 Ashford Road/Old Ashford Road - Option 2 Base 2031 + Dev, AM
»J5 Ashford Road/Old Ashford Road - Option 2 Base 2031 + Dev, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	J5 Ashford Road/Old Ashford Road - Base 2031							
Stream B-AC	0.6	19.18	0.36	C	1.0	20.19	0.50	C
Stream C-AB	0.0	4.53	0.01	A	0.0	4.01	0.01	A
	J5 Ashford Road/Old Ashford Road - Option 1 Base 2031 + Dev							
Stream B-AC	6.6	119.60	0.92	F	4.1	68.21	0.83	F
Stream C-AB	0.0	4.18	0.01	A	0.0	3.94	0.01	A
	J5 Ashford Road/Old Ashford Road - Option 2 Base 2031 + Dev							
Stream B-AC	36.6	399.44	1.25	F	8.1	106.84	0.94	F
Stream C-AB	0.0	4.42	0.01	A	0.0	4.06	0.01	A

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

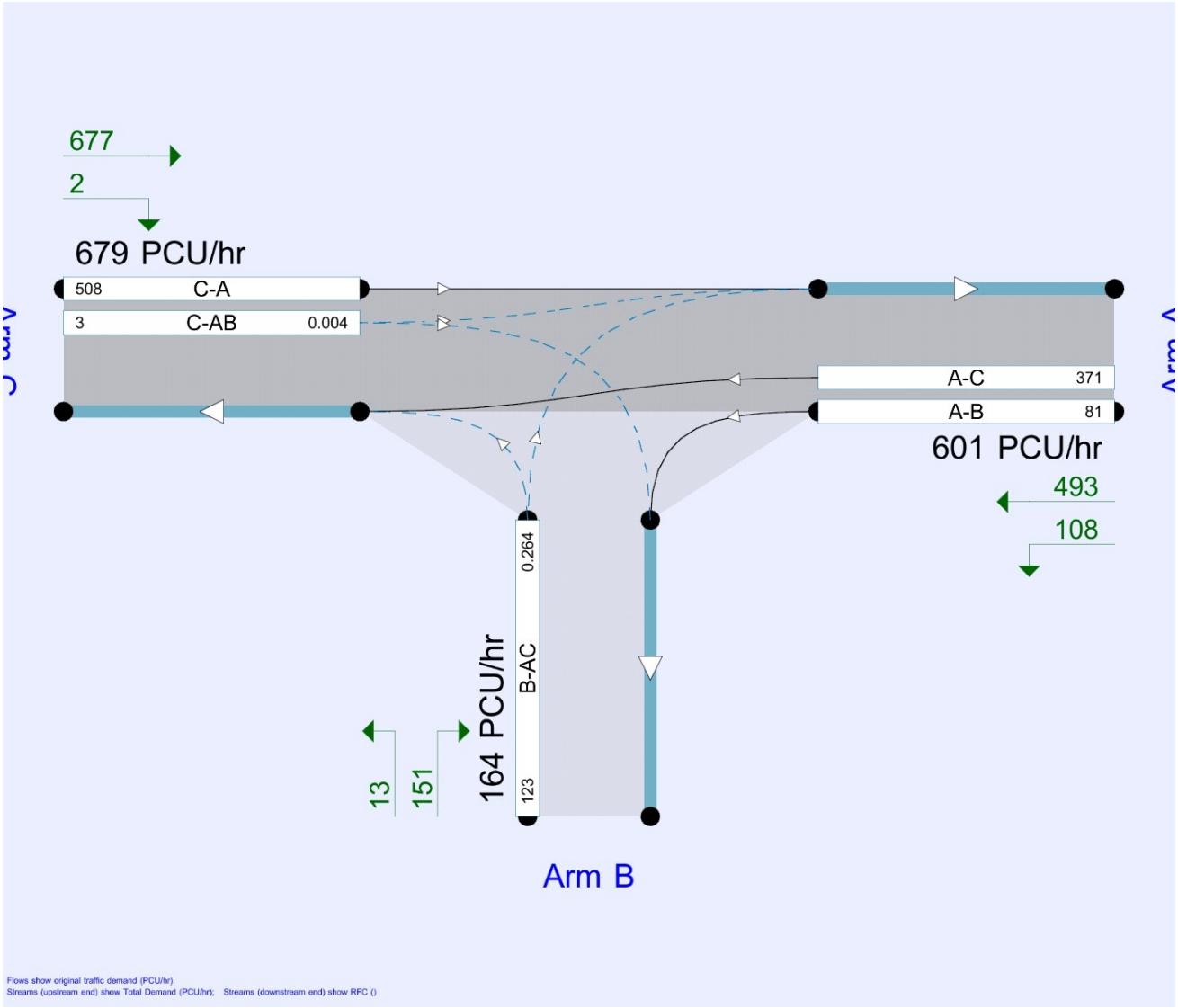
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	30/06/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MOTTMAC\rap67683
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	PCU	PCU	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	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base 2031	AM	ONE HOUR	07:15	08:45	15	✓
D2	Base 2031	PM	ONE HOUR	16:30	18:00	15	✓
D3	Option 1 Base 2031 + Dev	AM	ONE HOUR	07:15	08:45	15	✓
D4	Option 1 Base 2031 + Dev	PM	ONE HOUR	16:30	18:00	15	✓
D7	Option 2 Base 2031 + Dev	AM	ONE HOUR	07:15	08:45	15	✓
D8	Option 2 Base 2031 + Dev	PM	ONE HOUR	16:30	18:00	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	J5 Ashford Road/Old Ashford Road	✓	100.000	100.000

J5 Ashford Road/Old Ashford Road - Base 2031, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.23	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Ashford Road E		Major
B	Old Ashford Road S		Minor
C	Ashford Road W		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	6.00			190.0	✓	0.00

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	One lane	4.34	145	150

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	684	0.125	0.315	0.198	0.450
1	B-C	815	0.125	0.316	-	-
1	C-B	684	0.265	0.265	-	-

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)	Run automatically
D1	Base 2031	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	877	100.000
B		ONE HOUR	✓	99	100.000
C		ONE HOUR	✓	588	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	143	734
	B	85	0	14
	C	586	2	0

Proportions

		To		
		A	B	C
From	A	0.00	0.16	0.84
	B	0.86	0.00	0.14
	C	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	7
	B	3	0	0
	C	6	0	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.030	1.070
	B	1.030	1.000	1.000
	C	1.060	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A	660	660
	B	75	75
	C	443	443
07:30-07:45	A	788	788
	B	89	89
	C	529	529
07:45-08:00	A	966	966
	B	109	109
	C	647	647
08:00-08:15	A	966	966
	B	109	109
	C	647	647
08:15-08:30	A	788	788
	B	89	89
	C	529	529
08:30-08:45	A	660	660
	B	75	75
	C	443	443

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.36	19.18	0.6	C	91	136
C-AB	0.01	4.53	0.0	A	5	8
C-A					534	802
A-B					131	197
A-C					674	1010

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	75	19	429	0.174	74	0.0	0.2	10.346	B
C-AB	3	0.81	825	0.004	3	0.0	0.0	4.514	A
C-A	439	110			439				
A-B	108	27			108				
A-C	553	138			553				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	89	22	376	0.237	89	0.2	0.3	12.826	B
C-AB	5	1	863	0.005	5	0.0	0.0	4.336	A
C-A	524	131			524				
A-B	129	32			129				
A-C	660	165			660				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	109	27	301	0.362	108	0.3	0.6	18.993	C
C-AB	7	2	920	0.008	7	0.0	0.0	4.099	A
C-A	640	160			640				
A-B	157	39			157				
A-C	808	202			808				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	109	27	301	0.362	109	0.6	0.6	19.179	C
C-AB	7	2	920	0.008	7	0.0	0.0	4.108	A
C-A	640	160			640				
A-B	157	39			157				
A-C	808	202			808				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	89	22	376	0.237	90	0.6	0.3	12.950	B
C-AB	5	1	863	0.005	5	0.0	0.0	4.361	A
C-A	524	131			524				
A-B	129	32			129				
A-C	660	165			660				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	75	19	429	0.174	75	0.3	0.2	10.429	B
C-AB	3	0.81	825	0.004	3	0.0	0.0	4.528	A
C-A	439	110			439				
A-B	108	27			108				
A-C	553	138			553				

J5 Ashford Road/Old Ashford Road - Base 2031, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.31	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base 2031	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	601	100.000
B		ONE HOUR	✓	164	100.000
C		ONE HOUR	✓	679	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	108	493
	B	151	0	13
	C	677	2	0

Proportions

		To		
		A	B	C
From	A	0.00	0.18	0.82
	B	0.92	0.00	0.08
	C	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	4
	B	2	0	0
	C	2	0	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.000	1.040
	B	1.022	1.000	1.000
	C	1.022	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:30-16:45	A	452	452
	B	123	123
	C	511	511
16:45-17:00	A	540	540
	B	147	147
	C	610	610
17:00-17:15	A	662	662
	B	181	181
	C	748	748
17:15-17:30	A	662	662
	B	181	181
	C	748	748
17:30-17:45	A	540	540
	B	147	147
	C	610	610
17:45-18:00	A	452	452
	B	123	123
	C	511	511

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.50	20.19	1.0	C	150	226
C-AB	0.01	4.01	0.0	A	5	8
C-A					618	927
A-B					99	149
A-C					452	679

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	123	31	468	0.264	122	0.0	0.4	10.585	B
C-AB	3	0.85	914	0.004	3	0.0	0.0	4.001	A
C-A	508	127			508				
A-B	81	20			81				
A-C	371	93			371				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	147	37	424	0.348	147	0.4	0.5	13.235	B
C-AB	5	1	967	0.005	5	0.0	0.0	3.791	A
C-A	606	151			606				
A-B	97	24			97				
A-C	443	111			443				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	181	45	362	0.499	179	0.5	1.0	19.839	C
C-AB	8	2	1043	0.007	8	0.0	0.0	3.526	A
C-A	740	185			740				
A-B	119	30			119				
A-C	543	136			543				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	181	45	362	0.499	180	1.0	1.0	20.191	C
C-AB	8	2	1043	0.007	8	0.0	0.0	3.529	A
C-A	740	185			740				
A-B	119	30			119				
A-C	543	136			543				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	147	37	424	0.348	149	1.0	0.6	13.472	B
C-AB	5	1	967	0.005	5	0.0	0.0	3.801	A
C-A	606	151			606				
A-B	97	24			97				
A-C	443	111			443				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	123	31	468	0.264	124	0.6	0.4	10.717	B
C-AB	3	0.85	914	0.004	3	0.0	0.0	4.006	A
C-A	508	127			508				
A-B	81	20			81				
A-C	371	93			371				

J5 Ashford Road/Old Ashford Road - Option 1 Base 2031 + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	12.01	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Option 1 Base 2031 + Dev	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	971	100.000
B		ONE HOUR	✓	192	100.000
C		ONE HOUR	✓	751	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	177	794
	B	178	0	14
	C	749	2	0

Proportions

		To		
		A	B	C
From	A	0.00	0.18	0.82
	B	0.93	0.00	0.07
	C	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	7
	B	3	0	0
	C	6	0	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.030	1.070
	B	1.030	1.000	1.000
	C	1.060	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A	731	731
	B	145	145
	C	565	565
07:30-07:45	A	873	873
	B	173	173
	C	675	675
07:45-08:00	A	1069	1069
	B	211	211
	C	827	827
08:00-08:15	A	1069	1069
	B	211	211
	C	827	827
08:15-08:30	A	873	873
	B	173	173
	C	675	675
08:30-08:45	A	731	731
	B	145	145
	C	565	565

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.92	119.60	6.6	F	176	264
C-AB	0.01	4.18	0.0	A	7	10
C-A					682	1023
A-B					162	244
A-C					729	1093

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	145	36	378	0.383	142	0.0	0.6	15.569	C
C-AB	4	1	901	0.004	4	0.0	0.0	4.162	A
C-A	561	140			561				
A-B	133	33			133				
A-C	598	149			598				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	173	43	316	0.547	170	0.6	1.2	25.076	D
C-AB	6	2	957	0.006	6	0.0	0.0	3.936	A
C-A	669	167			669				
A-B	159	40			159				
A-C	714	178			714				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	211	53	230	0.921	195	1.2	5.2	84.627	F
C-AB	11	3	1042	0.010	11	0.0	0.0	3.647	A
C-A	816	204			816				
A-B	195	49			195				
A-C	874	219			874				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	211	53	230	0.921	206	5.2	6.6	119.598	F
C-AB	11	3	1042	0.010	11	0.0	0.0	3.656	A
C-A	816	204			816				
A-B	195	49			195				
A-C	874	219			874				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	173	43	316	0.547	194	6.6	1.3	34.722	D
C-AB	6	2	957	0.006	6	0.0	0.0	3.958	A
C-A	669	167			669				
A-B	159	40			159				
A-C	714	178			714				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	145	36	378	0.383	147	1.3	0.7	16.242	C
C-AB	4	1	901	0.004	4	0.0	0.0	4.176	A
C-A	561	140			561				
A-B	133	33			133				
A-C	598	149			598				

J5 Ashford Road/Old Ashford Road - Option 1 Base 2031 + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	8.22	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	Option 1 Base 2031 + Dev	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	802	100.000
B		ONE HOUR	✓	214	100.000
C		ONE HOUR	✓	764	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	173	629
	B	201	0	13
	C	762	2	0

Proportions

		To		
		A	B	C
From	A	0.00	0.22	0.78
	B	0.94	0.00	0.06
	C	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	4
	B	2	0	0
	C	2	0	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.000	1.040
	B	1.022	1.000	1.000
	C	1.022	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:30-16:45	A	604	604
	B	161	161
	C	575	575
16:45-17:00	A	721	721
	B	192	192
	C	687	687
17:00-17:15	A	883	883
	B	236	236
	C	841	841
17:15-17:30	A	883	883
	B	236	236
	C	841	841
17:30-17:45	A	721	721
	B	192	192
	C	687	687
17:45-18:00	A	604	604
	B	161	161
	C	575	575

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.83	68.21	4.1	F	196	295
C-AB	0.01	3.94	0.0	A	7	10
C-A					694	1042
A-B					159	238
A-C					577	866

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	161	40	414	0.390	159	0.0	0.6	14.272	B
C-AB	4	0.98	931	0.004	4	0.0	0.0	3.936	A
C-A	571	143			571				
A-B	130	33			130				
A-C	474	118			474				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	192	48	359	0.535	190	0.6	1.1	21.505	C
C-AB	6	1	990	0.006	6	0.0	0.0	3.708	A
C-A	681	170			681				
A-B	156	39			156				
A-C	565	141			565				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	236	59	284	0.830	226	1.1	3.6	55.581	F
C-AB	10	2	1079	0.009	10	0.0	0.0	3.420	A
C-A	831	208			831				
A-B	190	48			190				
A-C	693	173			693				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	236	59	284	0.830	234	3.6	4.1	68.212	F
C-AB	10	2	1079	0.009	10	0.0	0.0	3.425	A
C-A	831	208			831				
A-B	190	48			190				
A-C	693	173			693				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	192	48	359	0.535	204	4.1	1.2	25.196	D
C-AB	6	1	990	0.006	6	0.0	0.0	3.718	A
C-A	681	170			681				
A-B	156	39			156				
A-C	565	141			565				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	161	40	414	0.390	163	1.2	0.7	14.815	B
C-AB	4	0.98	931	0.004	4	0.0	0.0	3.940	A
C-A	571	143			571				
A-B	130	33			130				
A-C	474	118			474				

J5 Ashford Road/Old Ashford Road - Option 2 Base 2031 + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	60.33	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Option 2 Base 2031 + Dev	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	971	100.000
B		ONE HOUR	✓	289	100.000
C		ONE HOUR	✓	654	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	213	758
	B	275	0	14
	C	652	2	0

Proportions

		To		
		A	B	C
From	A	0.00	0.22	0.78
	B	0.95	0.00	0.05
	C	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	7
	B	3	0	0
	C	6	0	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.030	1.070
	B	1.030	1.000	1.000
	C	1.060	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A	731	731
	B	218	218
	C	492	492
07:30-07:45	A	873	873
	B	260	260
	C	588	588
07:45-08:00	A	1069	1069
	B	318	318
	C	720	720
08:00-08:15	A	1069	1069
	B	318	318
	C	720	720
08:15-08:30	A	873	873
	B	260	260
	C	588	588
08:30-08:45	A	731	731
	B	218	218
	C	492	492

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	1.25	399.44	36.6	F	265	398
C-AB	0.01	4.42	0.0	A	6	9
C-A					594	891
A-B					195	293
A-C					696	1043

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	218	54	393	0.553	213	0.0	1.2	20.018	C
C-AB	4	0.89	847	0.004	4	0.0	0.0	4.410	A
C-A	489	122			489				
A-B	160	40			160				
A-C	571	143			571				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	260	65	335	0.775	253	1.2	2.9	41.696	E
C-AB	5	1	891	0.006	5	0.0	0.0	4.211	A
C-A	583	146			583				
A-B	191	48			191				
A-C	681	170			681				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	318	80	255	1.247	248	2.9	20.5	200.045	F
C-AB	9	2	959	0.009	9	0.0	0.0	3.949	A
C-A	711	178			711				
A-B	235	59			235				
A-C	835	209			835				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	318	80	255	1.247	254	20.5	36.6	399.441	F
C-AB	9	2	959	0.009	9	0.0	0.0	3.958	A
C-A	711	178			711				
A-B	235	59			235				
A-C	835	209			835				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	260	65	335	0.775	326	36.6	20.0	313.051	F
C-AB	5	1	891	0.006	5	0.0	0.0	4.233	A
C-A	583	146			583				
A-B	191	48			191				
A-C	681	170			681				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	218	54	393	0.553	292	20.0	1.4	60.994	F
C-AB	4	0.90	847	0.004	4	0.0	0.0	4.424	A
C-A	489	122			489				
A-B	160	40			160				
A-C	571	143			571				

J5 Ashford Road/Old Ashford Road - Option 2 Base 2031 + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	15.92	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Option 2 Base 2031 + Dev	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	802	100.000
B		ONE HOUR	✓	265	100.000
C		ONE HOUR	✓	713	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	255	547
	B	252	0	13
	C	711	2	0

Proportions

		To		
		A	B	C
From	A	0.00	0.32	0.68
	B	0.95	0.00	0.05
	C	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	4
	B	2	0	0
	C	2	0	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.000	1.040
	B	1.022	1.000	1.000
	C	1.022	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:30-16:45	A	604	604
	B	200	200
	C	537	537
16:45-17:00	A	721	721
	B	238	238
	C	641	641
17:00-17:15	A	883	883
	B	292	292
	C	785	785
17:15-17:30	A	883	883
	B	292	292
	C	785	785
17:30-17:45	A	721	721
	B	238	238
	C	641	641
17:45-18:00	A	604	604
	B	200	200
	C	537	537

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.94	106.84	8.1	F	243	365
C-AB	0.01	4.06	0.0	A	6	9
C-A					648	972
A-B					234	351
A-C					502	753

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	200	50	431	0.463	196	0.0	0.9	15.431	C
C-AB	4	0.92	903	0.004	4	0.0	0.0	4.052	A
C-A	533	133			533				
A-B	192	48			192				
A-C	412	103			412				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	238	60	381	0.626	235	0.9	1.6	24.776	C
C-AB	5	1	957	0.006	5	0.0	0.0	3.834	A
C-A	636	159			636				
A-B	229	57			229				
A-C	492	123			492				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	292	73	311	0.940	273	1.6	6.4	74.568	F
C-AB	9	2	1037	0.009	9	0.0	0.0	3.555	A
C-A	776	194			776				
A-B	281	70			281				
A-C	602	151			602				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	292	73	311	0.940	285	6.4	8.1	106.838	F
C-AB	9	2	1037	0.009	9	0.0	0.0	3.558	A
C-A	776	194			776				
A-B	281	70			281				
A-C	602	151			602				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	238	60	381	0.626	263	8.1	1.8	36.728	E
C-AB	5	1	957	0.006	5	0.0	0.0	3.844	A
C-A	636	159			636				
A-B	229	57			229				
A-C	492	123			492				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	200	50	431	0.463	203	1.8	0.9	16.386	C
C-AB	4	0.93	903	0.004	4	0.0	0.0	4.056	A
C-A	533	133			533				
A-B	192	48			192				
A-C	412	103			412				

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.1.4646 []
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Filename: J5 Ashford Road Old Ashford Road.j9
Path: P:\Southampton\ITW\Projects\344395 Maidstone BC Transport Planning\Lenham TMS April 2016\Standard rbt options\J5 Ashford Road Old Ashford Road
Report generation date: 04/05/2016 13:31:51

»J5 Ashford Road/Old Ashford Road - Option 1 Base 2031 + Dev, AM
»J5 Ashford Road/Old Ashford Road - Option 1 Base 2031 + Dev, PM
»J5 Ashford Road/Old Ashford Road - Option 2 Base 2031 + Dev, AM
»J5 Ashford Road/Old Ashford Road - Option 2 Base 2031 + Dev, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	J5 Ashford Road/Old Ashford Road - Option 1 Base 2031 + Dev							
Arm A	3.1	10.77	0.75	B	1.7	6.87	0.62	A
Arm B	0.2	4.11	0.19	A	0.2	3.69	0.19	A
Arm C	2.7	11.83	0.72	B	2.9	12.51	0.74	B
	J5 Ashford Road/Old Ashford Road - Option 2 Base 2031 + Dev							
Arm A	3.1	10.75	0.75	B	1.7	6.84	0.62	A
Arm B	0.4	4.52	0.28	A	0.3	3.68	0.23	A
Arm C	2.0	10.35	0.66	B	2.5	11.56	0.71	B

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

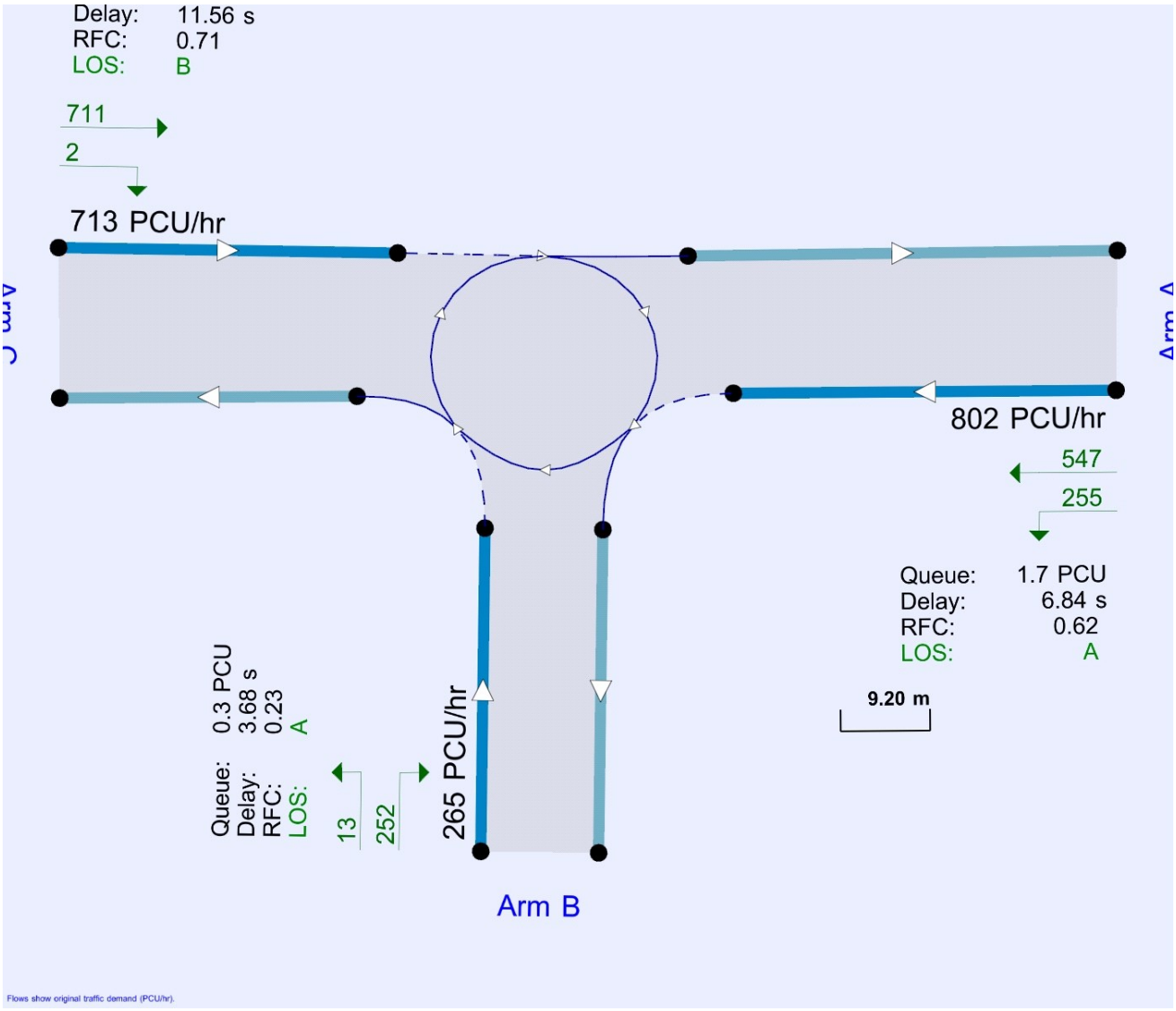
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	30/06/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MOTTMAC\rap67683
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	PCU	PCU	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	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Option 1 Base 2031 + Dev	AM	ONE HOUR	07:15	08:45	15	✓
D2	Option 1 Base 2031 + Dev	PM	ONE HOUR	16:30	18:00	15	✓
D3	Option 2 Base 2031 + Dev	AM	ONE HOUR	07:15	08:45	15	✓
D4	Option 2 Base 2031 + Dev	PM	ONE HOUR	16:30	18:00	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	J5 Ashford Road/Old Ashford Road	✓	100.000	100.000

J5 Ashford Road/Old Ashford Road - Option 1 Base 2031 + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	A,B,C	10.51	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Ashford Road E	
B	Old Ashford Road S	
C	Ashford Road W	

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	4.75	4.80	0.3	10.0	27.0	20.7	
B	5.65	5.65	0.0	10.0	27.0	21.1	
C	4.20	4.25	0.0	10.0	27.0	19.2	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.599	1425
B	0.651	1681
C	0.566	1260

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Option 1 Base 2031 + Dev	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	971	100.000
B		ONE HOUR	✓	192	100.000
C		ONE HOUR	✓	751	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	177	794
	B	178	0	14
	C	749	2	0

Proportions

		To		
		A	B	C
From	A	0.00	0.18	0.82
	B	0.93	0.00	0.07
	C	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	7
	B	3	0	0
	C	6	0	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.030	1.070
	B	1.030	1.000	1.000
	C	1.060	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A	731	731
	B	145	145
	C	565	565
07:30-07:45	A	873	873
	B	173	173
	C	675	675
07:45-08:00	A	1069	1069
	B	211	211
	C	827	827
08:00-08:15	A	1069	1069
	B	211	211
	C	827	827
08:15-08:30	A	873	873
	B	173	173
	C	675	675
08:30-08:45	A	731	731
	B	145	145
	C	565	565

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.75	10.77	3.1	B	891	1337
B	0.19	4.11	0.2	A	176	264
C	0.72	11.83	2.7	B	689	1034

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	731	183	1	1424	0.513	727	694	0.0	1.1	5.454	A
B	145	36	594	1294	0.112	144	134	0.0	0.1	3.214	A
C	565	141	134	1184	0.478	562	605	0.0	1.0	6.094	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	873	218	2	1424	0.613	871	831	1.1	1.7	6.890	A
B	173	43	712	1218	0.142	172	161	0.1	0.2	3.539	A
C	675	169	160	1169	0.577	673	725	1.0	1.4	7.666	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	1069	267	2	1423	0.751	1063	1016	1.7	3.1	10.461	B
B	211	53	870	1115	0.190	211	196	0.2	0.2	4.092	A
C	827	207	196	1149	0.720	822	885	1.4	2.6	11.511	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	1069	267	2	1423	0.751	1069	1020	3.1	3.1	10.767	B
B	211	53	874	1112	0.190	211	197	0.2	0.2	4.107	A
C	827	207	196	1149	0.720	827	889	2.6	2.7	11.826	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	873	218	2	1424	0.613	879	838	3.1	1.7	7.091	A
B	173	43	718	1213	0.142	173	162	0.2	0.2	3.558	A
C	675	169	160	1169	0.578	680	731	2.7	1.5	7.877	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	731	183	2	1424	0.513	733	700	1.7	1.1	5.558	A
B	145	36	600	1291	0.112	145	135	0.2	0.1	3.230	A
C	565	141	134	1184	0.478	567	610	1.5	1.0	6.212	A

J5 Ashford Road/Old Ashford Road - Option 1 Base 2031 + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	A,B,C	8.91	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Option 1 Base 2031 + Dev	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	802	100.000
B		ONE HOUR	✓	214	100.000
C		ONE HOUR	✓	764	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	173	629
	B	201	0	13
	C	762	2	0

Proportions

		To		
		A	B	C
From	A	0.00	0.22	0.78
	B	0.94	0.00	0.06
	C	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	4
	B	2	0	0
	C	2	0	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.000	1.040
	B	1.022	1.000	1.000
	C	1.022	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:30-16:45	A	604	604
	B	161	161
	C	575	575
16:45-17:00	A	721	721
	B	192	192
	C	687	687
17:00-17:15	A	883	883
	B	236	236
	C	841	841
17:15-17:30	A	883	883
	B	236	236
	C	841	841
17:30-17:45	A	721	721
	B	192	192
	C	687	687
17:45-18:00	A	604	604
	B	161	161
	C	575	575

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.62	6.87	1.7	A	736	1104
B	0.19	3.69	0.2	A	196	295
C	0.74	12.51	2.9	B	701	1052

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	604	151	1	1424	0.424	601	721	0.0	0.8	4.494	A
B	161	40	471	1374	0.117	161	131	0.0	0.1	3.025	A
C	575	144	151	1174	0.490	571	481	0.0	1.0	6.063	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	721	180	2	1424	0.506	720	864	0.8	1.0	5.266	A
B	192	48	565	1314	0.146	192	157	0.1	0.2	3.276	A
C	687	172	181	1157	0.593	685	576	1.0	1.5	7.752	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	883	221	2	1423	0.620	881	1055	1.0	1.7	6.807	A
B	236	59	691	1231	0.191	235	192	0.2	0.2	3.688	A
C	841	210	221	1134	0.742	836	705	1.5	2.8	12.106	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	883	221	2	1423	0.620	883	1060	1.7	1.7	6.866	A
B	236	59	692	1230	0.192	236	193	0.2	0.2	3.693	A
C	841	210	221	1134	0.742	841	707	2.8	2.9	12.508	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	721	180	2	1424	0.506	723	871	1.7	1.1	5.318	A
B	192	48	567	1312	0.147	193	158	0.2	0.2	3.285	A
C	687	172	181	1157	0.594	692	579	2.9	1.5	8.001	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	604	151	2	1424	0.424	605	727	1.1	0.8	4.540	A
B	161	40	474	1372	0.117	161	132	0.2	0.1	3.033	A
C	575	144	151	1174	0.490	577	484	1.5	1.0	6.190	A

J5 Ashford Road/Old Ashford Road - Option 2 Base 2031 + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	A,B,C	9.67	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Option 2 Base 2031 + Dev	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	971	100.000
B		ONE HOUR	✓	289	100.000
C		ONE HOUR	✓	654	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	213	758
	B	275	0	14
	C	652	2	0

Proportions

		To		
		A	B	C
From	A	0.00	0.22	0.78
	B	0.95	0.00	0.05
	C	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	7
	B	3	0	0
	C	6	0	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.030	1.070
	B	1.030	1.000	1.000
	C	1.060	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A	731	731
	B	218	218
	C	492	492
07:30-07:45	A	873	873
	B	260	260
	C	588	588
07:45-08:00	A	1069	1069
	B	318	318
	C	720	720
08:00-08:15	A	1069	1069
	B	318	318
	C	720	720
08:15-08:30	A	873	873
	B	260	260
	C	588	588
08:30-08:45	A	731	731
	B	218	218
	C	492	492

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.75	10.75	3.1	B	891	1337
B	0.28	4.52	0.4	A	265	398
C	0.66	10.35	2.0	B	600	900

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	731	183	1	1424	0.513	727	694	0.0	1.1	5.446	A
B	218	54	567	1312	0.166	217	161	0.0	0.2	3.380	A
C	492	123	206	1143	0.431	489	578	0.0	0.8	5.810	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	873	218	2	1424	0.613	871	832	1.1	1.7	6.880	A
B	260	65	680	1239	0.210	260	193	0.2	0.3	3.781	A
C	588	147	247	1120	0.525	586	692	0.8	1.2	7.132	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	1069	267	2	1423	0.751	1063	1017	1.7	3.1	10.448	B
B	318	80	830	1141	0.279	318	235	0.3	0.4	4.496	A
C	720	180	302	1088	0.662	717	846	1.2	2.0	10.166	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	1069	267	2	1423	0.751	1069	1021	3.1	3.1	10.751	B
B	318	80	834	1138	0.280	318	237	0.4	0.4	4.516	A
C	720	180	303	1088	0.662	720	850	2.0	2.0	10.352	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	873	218	2	1424	0.613	879	837	3.1	1.7	7.081	A
B	260	65	686	1235	0.210	260	195	0.4	0.3	3.801	A
C	588	147	248	1119	0.525	591	698	2.0	1.2	7.270	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	731	183	2	1424	0.513	733	700	1.7	1.1	5.552	A
B	218	54	572	1308	0.166	218	162	0.3	0.2	3.395	A
C	492	123	207	1142	0.431	494	583	1.2	0.8	5.897	A

J5 Ashford Road/Old Ashford Road - Option 2 Base 2031 + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	A,B,C	8.26	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	Option 2 Base 2031 + Dev	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	802	100.000
B		ONE HOUR	✓	265	100.000
C		ONE HOUR	✓	713	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	255	547
	B	252	0	13
	C	711	2	0

Proportions

		To		
		A	B	C
From	A	0.00	0.32	0.68
	B	0.95	0.00	0.05
	C	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	4
	B	2	0	0
	C	2	0	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.000	1.040
	B	1.022	1.000	1.000
	C	1.022	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:30-16:45	A	604	604
	B	200	200
	C	537	537
16:45-17:00	A	721	721
	B	238	238
	C	641	641
17:00-17:15	A	883	883
	B	292	292
	C	785	785
17:15-17:30	A	883	883
	B	292	292
	C	785	785
17:30-17:45	A	721	721
	B	238	238
	C	641	641
17:45-18:00	A	604	604
	B	200	200
	C	537	537

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.62	6.84	1.7	A	736	1104
B	0.23	3.68	0.3	A	243	365
C	0.71	11.56	2.5	B	654	981

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	604	151	1	1424	0.424	601	721	0.0	0.7	4.476	A
B	200	50	410	1414	0.141	199	193	0.0	0.2	3.022	A
C	537	134	189	1153	0.466	533	420	0.0	0.9	5.908	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	721	180	2	1424	0.506	720	864	0.7	1.0	5.244	A
B	238	60	491	1362	0.175	238	231	0.2	0.2	3.271	A
C	641	160	226	1131	0.567	639	503	0.9	1.3	7.447	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	883	221	2	1423	0.620	881	1056	1.0	1.6	6.782	A
B	292	73	601	1290	0.226	291	282	0.2	0.3	3.680	A
C	785	196	277	1103	0.712	781	615	1.3	2.4	11.265	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	883	221	2	1423	0.620	883	1060	1.6	1.7	6.838	A
B	292	73	602	1289	0.226	292	283	0.3	0.3	3.684	A
C	785	196	277	1102	0.712	785	617	2.4	2.5	11.561	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	721	180	2	1424	0.506	723	870	1.7	1.1	5.299	A
B	238	60	493	1360	0.175	239	232	0.3	0.2	3.277	A
C	641	160	227	1131	0.567	645	505	2.5	1.4	7.643	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	604	151	2	1424	0.424	605	727	1.1	0.8	4.523	A
B	200	50	413	1412	0.141	200	194	0.2	0.2	3.030	A
C	537	134	190	1152	0.466	539	422	1.4	0.9	6.016	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.1.4646 []
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Filename: J5 Ashford Road Old Ashford Road.j9
Path: P:\Southampton\ITW\Projects\344395 Maidstone BC Transport Planning\Lenham TMS April 2016\Mini rbt options\J5 Ashford Road Old Ashford Road
Report generation date: 04/05/2016 12:54:53

»J5 Ashford Road/Old Ashford Road - Option 1 Base 2031 + Dev, AM
»J5 Ashford Road/Old Ashford Road - Option 1 Base 2031 + Dev, PM
»J5 Ashford Road/Old Ashford Road - Option 2 Base 2031 + Dev, AM
»J5 Ashford Road/Old Ashford Road - Option 2 Base 2031 + Dev, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	J5 Ashford Road/Old Ashford Road - Option 1 Base 2031 + Dev							
Arm A	17.5	61.65	0.97	F	4.0	17.08	0.80	C
Arm B	3.5	64.09	0.81	F	1.8	28.53	0.65	D
Arm C	12.6	58.42	0.95	F	18.2	79.63	0.99	F
	J5 Ashford Road/Old Ashford Road - Option 2 Base 2031 + Dev							
Arm A	17.5	61.60	0.97	F	4.0	17.02	0.80	C
Arm B	21.4	232.80	1.11	F	2.3	29.02	0.70	D
Arm C	6.6	35.18	0.88	E	13.7	66.13	0.96	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.

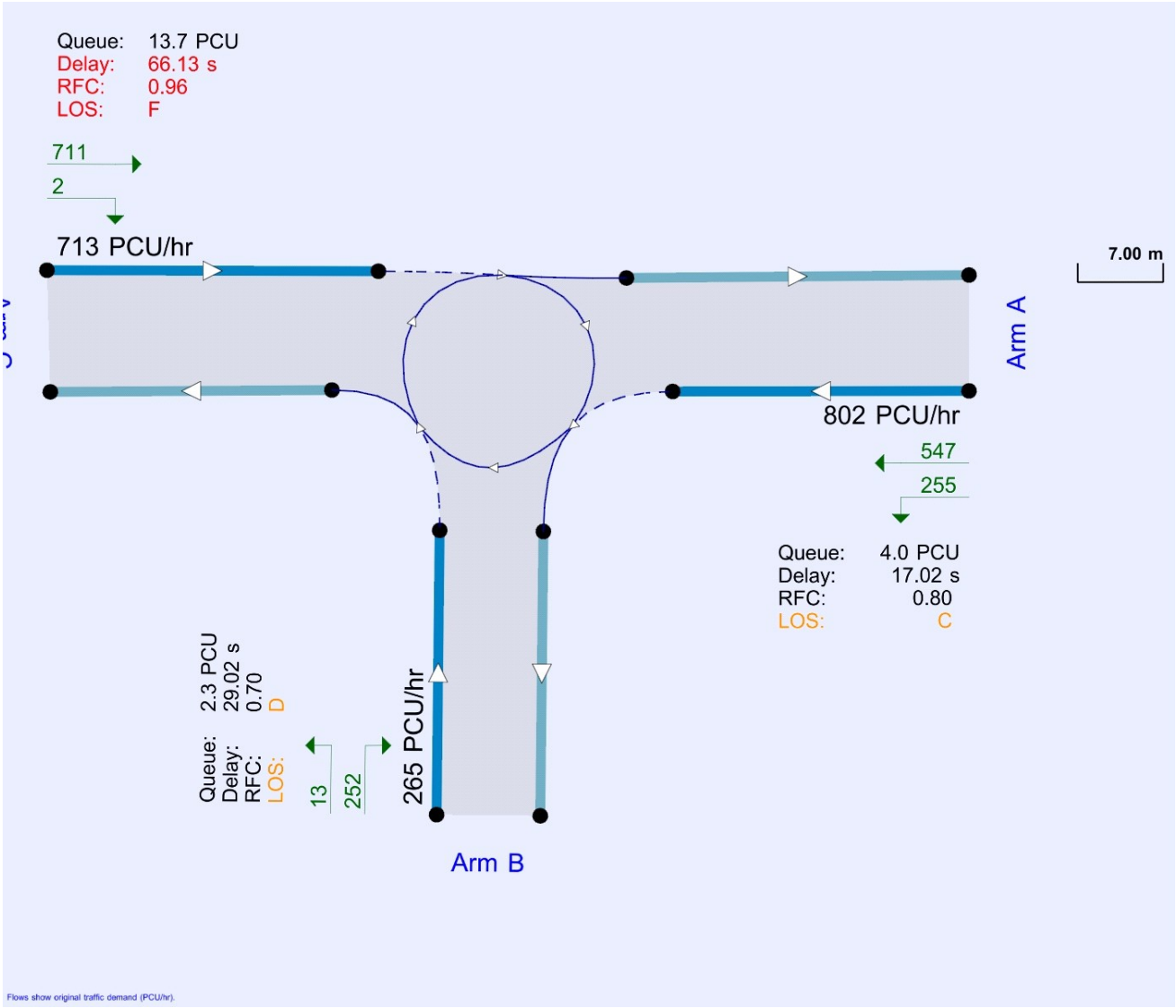
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	30/06/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MOTTMAC\rap67683
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	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Option 1 Base 2031 + Dev	AM	ONE HOUR	07:15	08:45	15	✓
D2	Option 1 Base 2031 + Dev	PM	ONE HOUR	16:30	18:00	15	✓
D3	Option 2 Base 2031 + Dev	AM	ONE HOUR	07:15	08:45	15	✓
D4	Option 2 Base 2031 + Dev	PM	ONE HOUR	16:30	18:00	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	J5 Ashford Road/Old Ashford Road	✓	100.000	100.000

J5 Ashford Road/Old Ashford Road - Option 1 Base 2031 + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 89% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	A,B,C	60.63	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
A	Ashford Road E	
B	Old Ashford Road S	
C	Ashford Road W	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	4.85	4.80	5.22	1.0	12.03	8.83	0.0	
B	2.96	2.96	3.21	1.1	11.82	7.65	0.0	
C	4.94	4.40	4.40	0.0	15.31	13.44	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.666	1099
B	0.595	775
C	0.655	995

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Option 1 Base 2031 + Dev	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	971	100.000
B		ONE HOUR	✓	192	100.000
C		ONE HOUR	✓	751	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	177	794
	B	178	0	14
	C	749	2	0

Proportions

		To		
		A	B	C
From	A	0.00	0.18	0.82
	B	0.93	0.00	0.07
	C	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	7
	B	3	0	0
	C	6	0	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.030	1.070
	B	1.030	1.000	1.000
	C	1.060	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A	731	731
	B	145	145
	C	565	565
07:30-07:45	A	873	873
	B	173	173
	C	675	675
07:45-08:00	A	1069	1069
	B	211	211
	C	827	827
08:00-08:15	A	1069	1069
	B	211	211
	C	827	827
08:15-08:30	A	873	873
	B	173	173
	C	675	675
08:30-08:45	A	731	731
	B	145	145
	C	565	565

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.97	61.65	17.5	F	891	1337
B	0.81	64.09	3.5	F	176	264
C	0.95	58.42	12.6	F	689	1034

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	731	183	1	1098	0.666	723	689	0.0	2.0	9.981	A
B	145	36	591	423	0.342	142	133	0.0	0.5	13.089	B
C	565	141	132	909	0.622	559	601	0.0	1.7	10.697	B

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	873	218	2	1098	0.795	866	826	2.0	3.8	15.975	C
B	173	43	708	354	0.488	171	160	0.5	0.9	20.063	C
C	675	169	158	892	0.757	670	720	1.7	3.1	16.754	C

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	1069	267	2	1098	0.974	1030	986	3.8	13.6	41.705	E
B	211	53	842	274	0.772	204	190	0.9	2.8	48.526	E
C	827	207	189	872	0.949	799	857	3.1	10.1	41.472	E

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	1069	267	2	1098	0.974	1053	1008	13.6	17.5	61.651	F
B	211	53	861	262	0.805	209	194	2.8	3.5	64.092	F
C	827	207	194	869	0.952	817	877	10.1	12.6	58.424	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	873	218	2	1098	0.795	925	877	17.5	4.5	26.913	D
B	173	43	756	325	0.531	182	170	3.5	1.2	27.226	D
C	675	169	168	885	0.763	711	770	12.6	3.7	25.384	D

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	731	183	2	1098	0.666	740	708	4.5	2.2	10.949	B
B	145	36	605	415	0.349	147	136	1.2	0.6	13.967	B
C	565	141	136	906	0.624	573	616	3.7	1.8	11.700	B

J5 Ashford Road/Old Ashford Road - Option 1 Base 2031 + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 87% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	A,B,C	45.31	E

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Option 1 Base 2031 + Dev	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	802	100.000
B		ONE HOUR	✓	214	100.000
C		ONE HOUR	✓	764	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	173	629
	B	201	0	13
	C	762	2	0

Proportions

		To		
		A	B	C
From	A	0.00	0.22	0.78
	B	0.94	0.00	0.06
	C	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	4
	B	2	0	0
	C	2	0	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.000	1.040
	B	1.022	1.000	1.000
	C	1.022	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:30-16:45	A	604	604
	B	161	161
	C	575	575
16:45-17:00	A	721	721
	B	192	192
	C	687	687
17:00-17:15	A	883	883
	B	236	236
	C	841	841
17:15-17:30	A	883	883
	B	236	236
	C	841	841
17:30-17:45	A	721	721
	B	192	192
	C	687	687
17:45-18:00	A	604	604
	B	161	161
	C	575	575

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.80	17.08	4.0	C	736	1104
B	0.65	28.53	1.8	D	196	295
C	0.99	79.63	18.2	F	701	1052

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	604	151	1	1098	0.550	599	716	0.0	1.2	7.360	A
B	161	40	470	495	0.325	159	131	0.0	0.5	10.868	B
C	575	144	150	898	0.641	568	479	0.0	1.8	10.948	B

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	721	180	2	1098	0.657	718	858	1.2	1.9	9.700	A
B	192	48	563	440	0.438	191	157	0.5	0.8	14.716	B
C	687	172	180	878	0.782	680	575	1.8	3.4	18.042	C

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	883	221	2	1098	0.804	875	1017	1.9	3.9	16.090	C
B	236	59	686	367	0.643	232	191	0.8	1.7	26.578	D
C	841	210	218	853	0.986	802	700	3.4	13.3	50.722	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	883	221	2	1098	0.804	882	1040	3.9	4.0	17.084	C
B	236	59	692	363	0.649	235	192	1.7	1.8	28.532	D
C	841	210	221	851	0.989	822	706	13.3	18.2	79.629	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	721	180	2	1098	0.657	729	925	4.0	2.0	10.268	B
B	192	48	572	435	0.443	196	159	1.8	0.8	15.645	C
C	687	172	184	875	0.785	743	584	18.2	4.2	35.535	E

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	604	151	2	1098	0.550	607	735	2.0	1.3	7.598	A
B	161	40	476	492	0.328	162	132	0.8	0.5	11.204	B
C	575	144	153	896	0.642	584	486	4.2	1.9	12.141	B

J5 Ashford Road/Old Ashford Road - Option 2 Base 2031 + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 84% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	A,B,C	78.42	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Option 2 Base 2031 + Dev	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	971	100.000
B		ONE HOUR	✓	289	100.000
C		ONE HOUR	✓	654	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	213	758
	B	275	0	14
	C	652	2	0

Proportions

		To		
		A	B	C
From	A	0.00	0.22	0.78
	B	0.95	0.00	0.05
	C	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	7
	B	3	0	0
	C	6	0	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.030	1.070
	B	1.030	1.000	1.000
	C	1.060	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A	731	731
	B	218	218
	C	492	492
07:30-07:45	A	873	873
	B	260	260
	C	588	588
07:45-08:00	A	1069	1069
	B	318	318
	C	720	720
08:00-08:15	A	1069	1069
	B	318	318
	C	720	720
08:15-08:30	A	873	873
	B	260	260
	C	588	588
08:30-08:45	A	731	731
	B	218	218
	C	492	492

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.97	61.60	17.5	F	891	1337
B	1.11	232.80	21.4	F	265	398
C	0.88	35.18	6.6	E	600	900

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	731	183	1	1098	0.666	723	689	0.0	2.0	9.967	A
B	218	54	564	439	0.495	214	160	0.0	1.0	16.161	C
C	492	123	203	862	0.571	487	575	0.0	1.4	10.022	B

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	873	218	2	1098	0.795	866	825	2.0	3.8	15.954	C
B	260	65	676	373	0.697	255	192	1.0	2.1	30.341	D
C	588	147	243	836	0.703	584	688	1.4	2.4	14.864	B

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	1069	267	2	1098	0.974	1030	969	3.8	13.6	41.670	E
B	318	80	804	297	1.073	279	228	2.1	12.1	119.136	F
C	720	180	265	822	0.876	706	818	2.4	6.0	29.687	D

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	1069	267	2	1098	0.974	1053	983	13.6	17.5	61.602	F
B	318	80	822	286	1.114	281	233	12.1	21.4	232.799	F
C	720	180	267	820	0.878	717	836	6.0	6.6	35.180	E

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	873	218	2	1098	0.795	925	910	17.5	4.5	26.866	D
B	260	65	722	345	0.752	327	205	21.4	4.6	153.139	F
C	588	147	311	792	0.743	601	738	6.6	3.3	21.204	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	731	183	2	1098	0.666	740	719	4.5	2.2	10.930	B
B	218	54	578	431	0.505	232	164	4.6	1.1	19.798	C
C	492	123	221	851	0.579	499	589	3.3	1.5	11.064	B

J5 Ashford Road/Old Ashford Road - Option 2 Base 2031 + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 85% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	A,B,C	38.48	E

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	Option 2 Base 2031 + Dev	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	802	100.000
B		ONE HOUR	✓	265	100.000
C		ONE HOUR	✓	713	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	255	547
	B	252	0	13
	C	711	2	0

Proportions

		To		
		A	B	C
From	A	0.00	0.32	0.68
	B	0.95	0.00	0.05
	C	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	4
	B	2	0	0
	C	2	0	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.000	1.040
	B	1.022	1.000	1.000
	C	1.022	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:30-16:45	A	604	604
	B	200	200
	C	537	537
16:45-17:00	A	721	721
	B	238	238
	C	641	641
17:00-17:15	A	883	883
	B	292	292
	C	785	785
17:15-17:30	A	883	883
	B	292	292
	C	785	785
17:30-17:45	A	721	721
	B	238	238
	C	641	641
17:45-18:00	A	604	604
	B	200	200
	C	537	537

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.80	17.02	4.0	C	736	1104
B	0.70	29.02	2.3	D	243	365
C	0.96	66.13	13.7	F	654	981

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	604	151	1	1098	0.550	599	716	0.0	1.2	7.330	A
B	200	50	408	532	0.375	197	192	0.0	0.6	10.906	B
C	537	134	187	873	0.615	530	418	0.0	1.6	10.564	B

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	721	180	2	1098	0.657	718	859	1.2	1.9	9.660	A
B	238	60	490	483	0.493	237	230	0.6	1.0	14.815	B
C	641	160	225	848	0.756	636	502	1.6	2.9	16.878	C

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	883	221	2	1098	0.804	875	1025	1.9	3.9	16.031	C
B	292	73	597	420	0.695	287	280	1.0	2.1	26.803	D
C	785	196	273	817	0.961	754	611	2.9	10.6	45.058	E

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	883	221	2	1098	0.804	882	1047	3.9	4.0	17.020	C
B	292	73	602	417	0.700	291	283	2.1	2.3	29.017	D
C	785	196	277	814	0.964	773	616	10.6	13.7	66.135	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	721	180	2	1098	0.657	729	911	4.0	2.0	10.223	B
B	238	60	497	479	0.497	243	234	2.3	1.0	15.876	C
C	641	160	231	844	0.759	682	509	13.7	3.5	27.071	D

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
A	604	151	2	1098	0.550	607	734	2.0	1.3	7.567	A
B	200	50	414	529	0.377	201	194	1.0	0.6	11.281	B
C	537	134	191	870	0.617	544	424	3.5	1.7	11.520	B

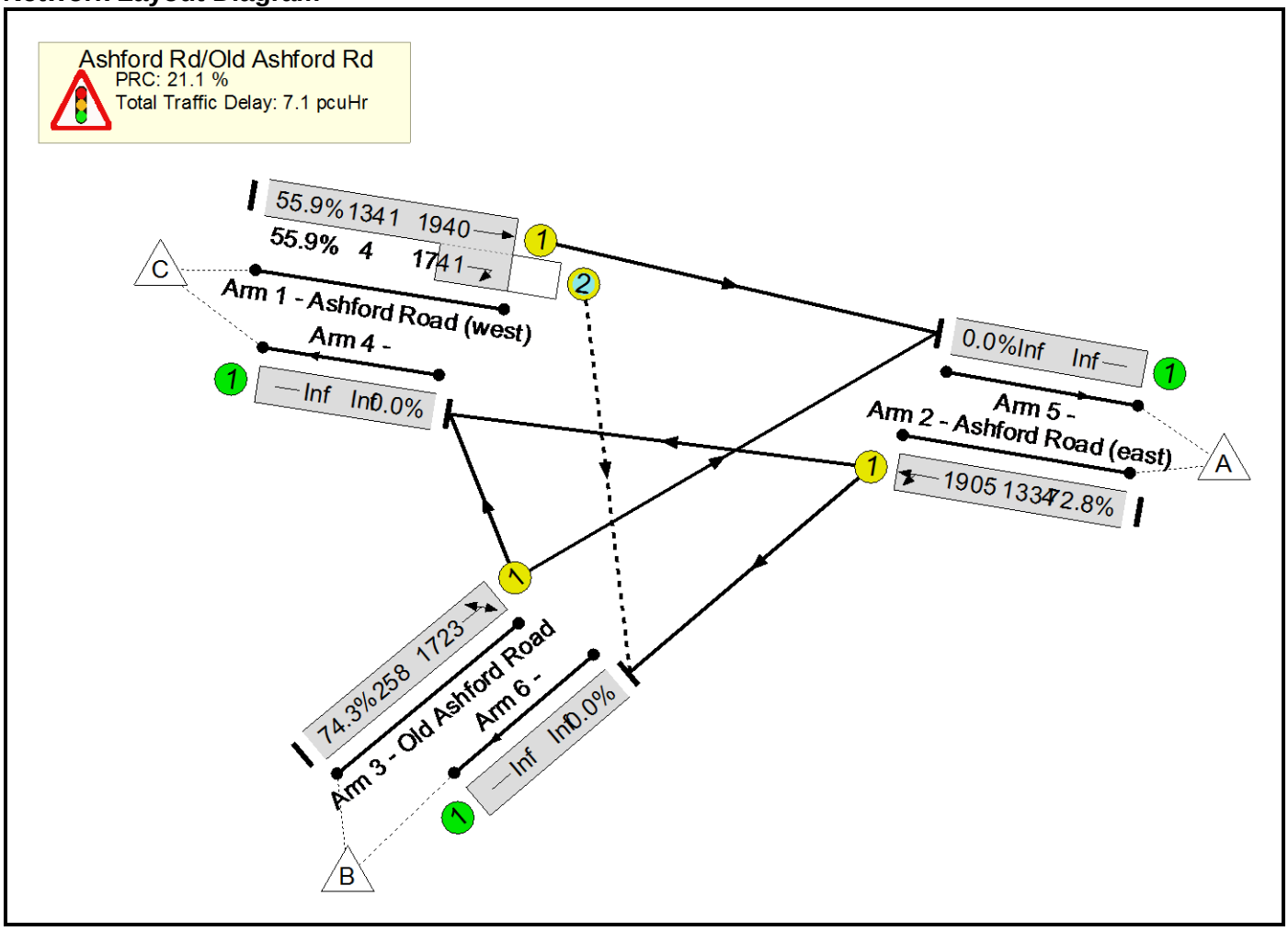
Basic Results Summary

User and Project Details

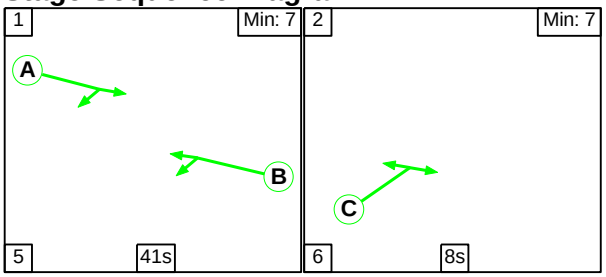
Project:	**Lenham**
Title:	**Junction 5 Ashford Rd/Old Ashford Rd**
Location:	Maidstone
File name:	Ashford Rd_Old Ashford Rd.lsg3x
Author:	David Parkin
Company:	Mott MacDonald
Address:	Stoneham Place, Stoneham Lane, Southampton
Notes:	

Scenario 1: 'Option 1 AM Base 2031 + Dev' (FG1: 'Option 1 AM Base 2031 + Dev', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Stage Sequence Diagram



Basic Results Summary

Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Junction 5 Ashford Rd/Old Ashford Rd	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**74.3%**	**2**	**0**	**0**	**7.1**	**-**	**-**
Ashford Rd/Old Ashford Rd	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**74.3%**	**2**	**0**	**0**	**7.1**	**-**	**-**
1/1+1/2	Ashford Road (west) Ahead Right	U+O	A		1	41	-	751	1940:1741	1341+4	55.9 : 55.9%	2	0	0	1.6	7.6	6.9
2/1	Ashford Road (east) Ahead Left	U	B		1	41	-	971	1905	1334	72.8%	-	-	-	2.8	10.4	11.0
3/1	Old Ashford Road Left Right	U	C		1	8	-	192	1723	258	74.3%	-	-	-	2.7	50.4	4.4

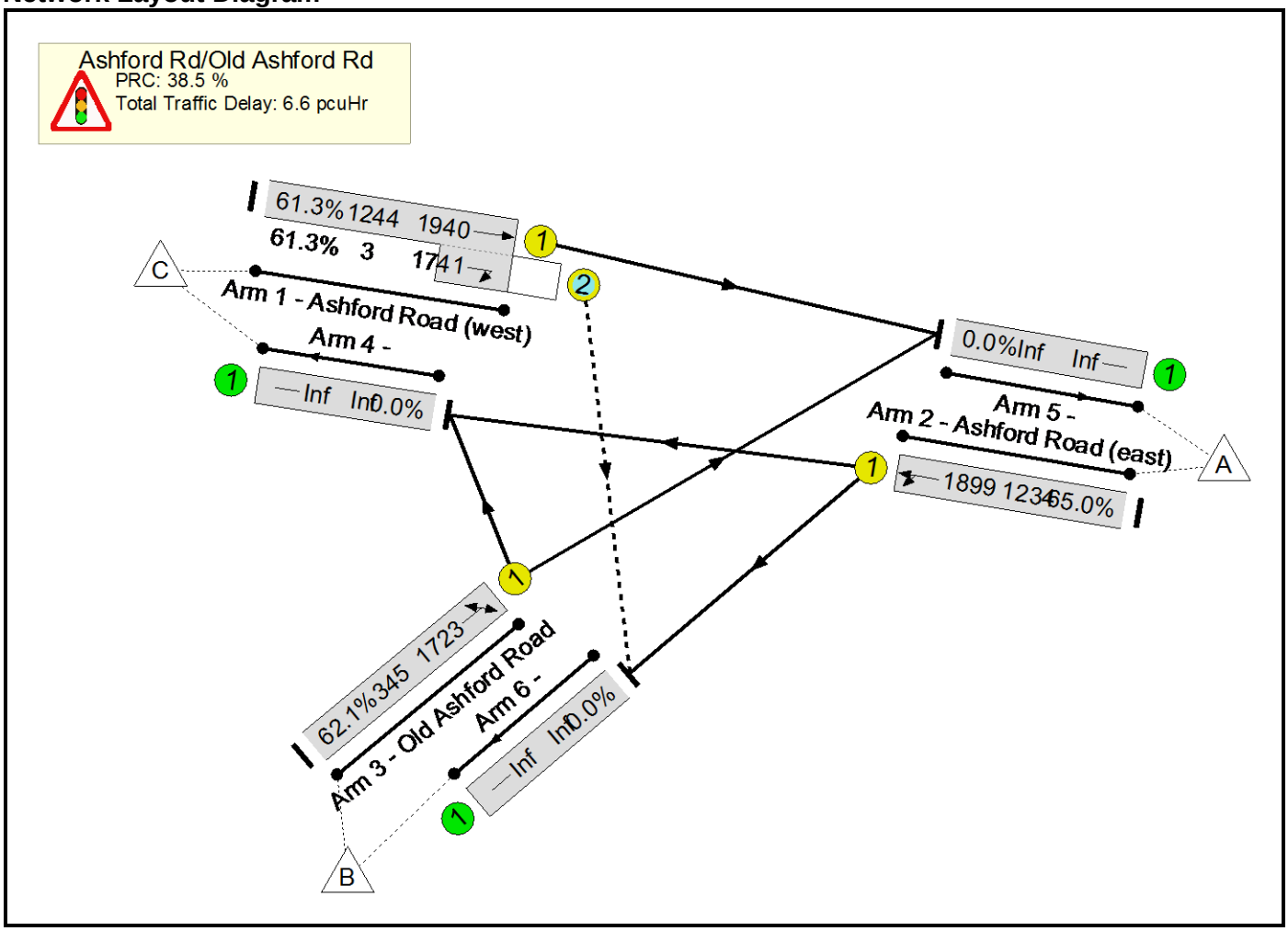
C1 PRC for Signalled Lanes (%): 21.1 Total Delay for Signalled Lanes (pcuHr): 7.08 Cycle Time (s): 60

PRC Over All Lanes (%): 21.1 Total Delay Over All Lanes(pcuHr): 7.08

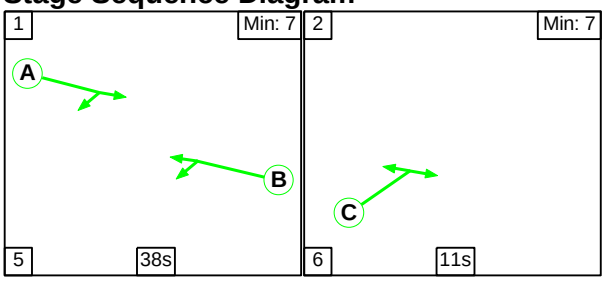
Basic Results Summary

Scenario 2: 'Option 1 PM Base 2031 + Dev' (FG2: 'Option 1 PM Base 2031 + Dev', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Stage Sequence Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Junction 5 Ashford Rd/Old Ashford Rd	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**65.0%**	**2**	**0**	**0**	**6.6**	**-**	**-**
Ashford Rd/Old Ashford Rd	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**65.0%**	**2**	**0**	**0**	**6.6**	**-**	**-**
1/1+1/2	Ashford Road (west) Ahead Right	U+O	A		1	38	-	764	1940:1741	1244+3	61.3 : 61.3%	2	0	0	2.1	9.9	8.2
2/1	Ashford Road (east) Ahead Left	U	B		1	38	-	802	1899	1234	65.0%	-	-	-	2.3	10.5	8.9
3/1	Old Ashford Road Left Right	U	C		1	11	-	214	1723	345	62.1%	-	-	-	2.1	35.5	4.0

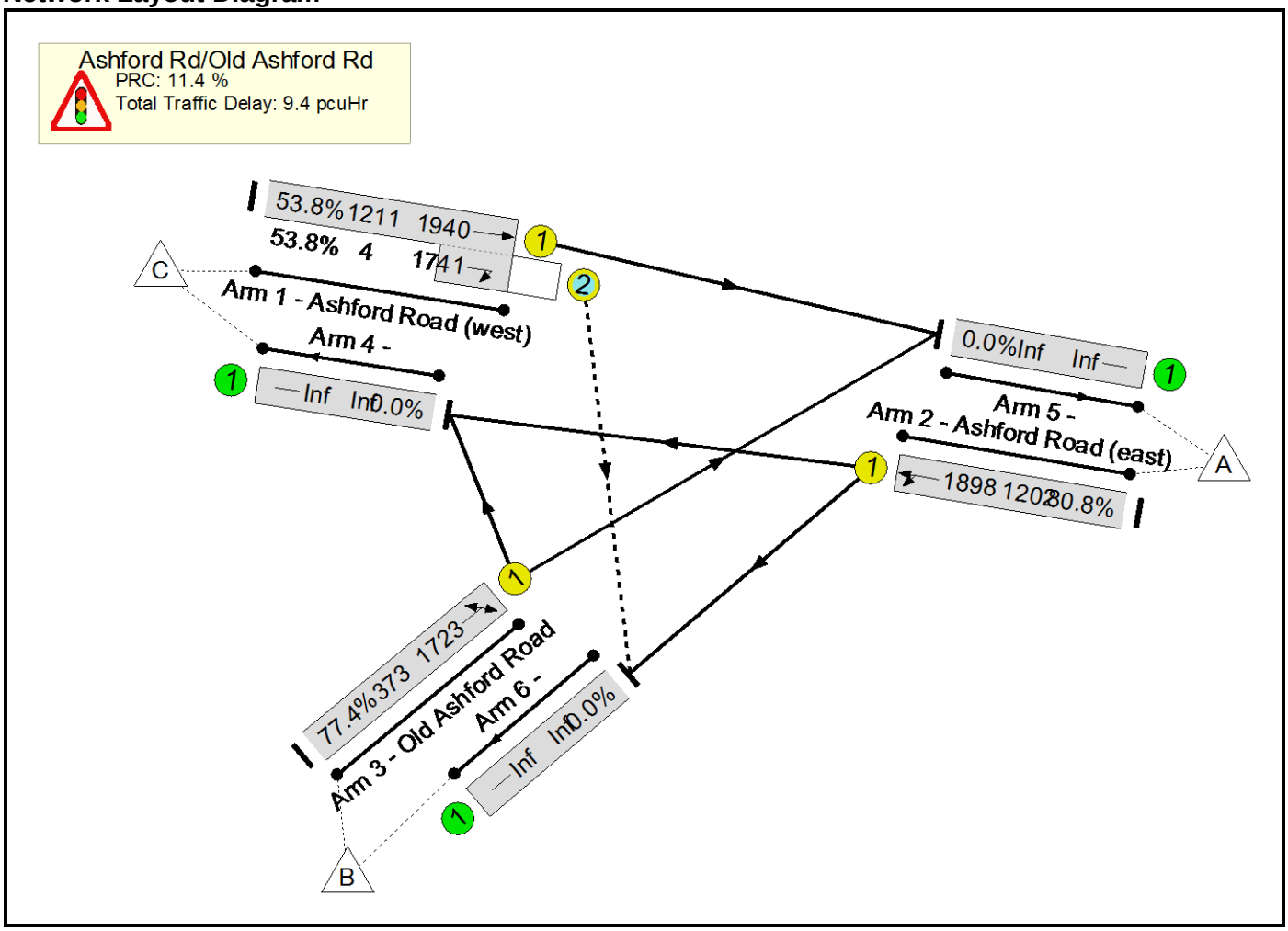
C1 PRC for Signalled Lanes (%): 38.5 Total Delay for Signalled Lanes (pcuHr): 6.56 Cycle Time (s): 60

PRC Over All Lanes (%): 38.5 Total Delay Over All Lanes(pcuHr): 6.56

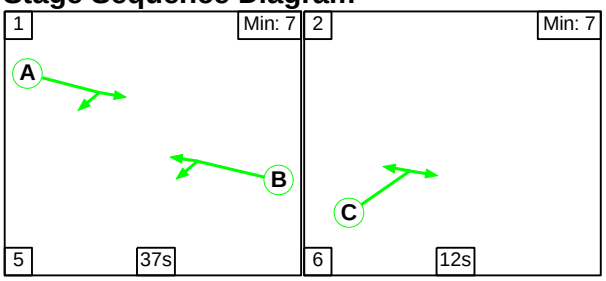
Basic Results Summary

Scenario 3: 'Option 2 AM Base 2031 + Dev' (FG3: 'Option 2 AM Base 2031 + Dev', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Stage Sequence Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Junction 5 Ashford Rd/Old Ashford Rd	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**80.8%**	**2**	**0**	**0**	**9.4**	**-**	**-**
Ashford Rd/Old Ashford Rd	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**80.8%**	**2**	**0**	**0**	**9.4**	**-**	**-**
1/1+1/2	Ashford Road (west) Ahead Right	U+O	A		1	37	-	654	1940:1741	1211+4	53.8 : 53.8%	2	0	0	1.7	9.4	6.6
2/1	Ashford Road (east) Ahead Left	U	B		1	37	-	971	1898	1202	80.8%	-	-	-	4.3	15.9	14.2
3/1	Old Ashford Road Left Right	U	C		1	12	-	289	1723	373	77.4%	-	-	-	3.4	42.7	6.1

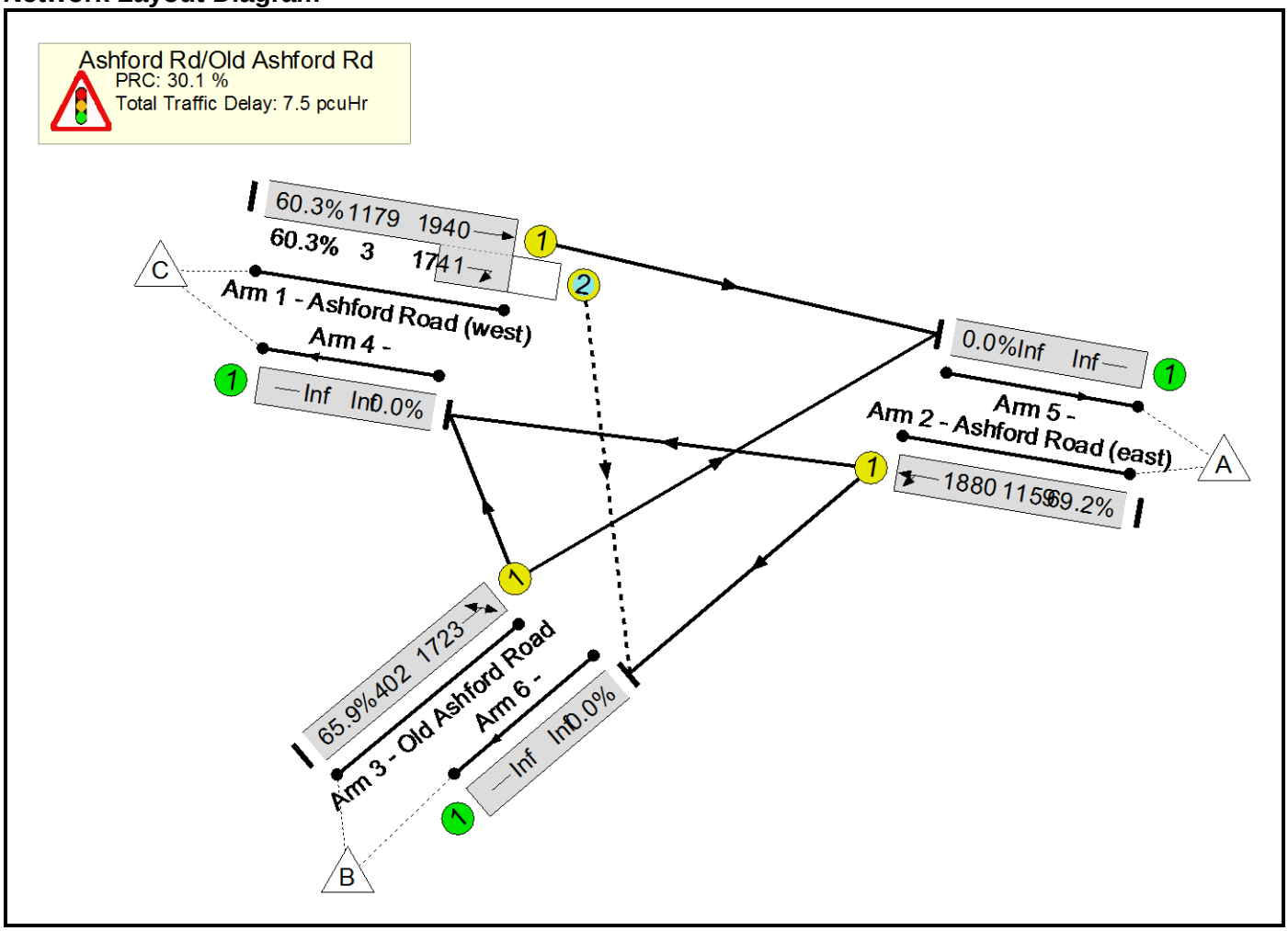
C1 PRC for Signalled Lanes (%): 11.4 Total Delay for Signalled Lanes (pcuHr): 9.43 Cycle Time (s): 60

PRC Over All Lanes (%): 11.4 Total Delay Over All Lanes(pcuHr): 9.43

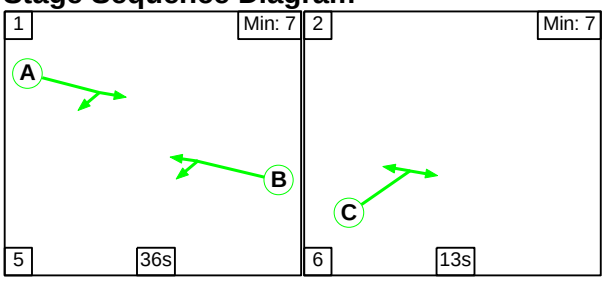
Basic Results Summary

Scenario 4: 'Option 2 PM Base 2031 + Dev' (FG4: 'Option 2 PM Base 2031 + Dev', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Stage Sequence Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Junction 5 Ashford Rd/Old Ashford Rd	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**69.2%**	**2**	**0**	**0**	**7.5**	**-**	**-**
Ashford Rd/Old Ashford Rd	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**69.2%**	**2**	**0**	**0**	**7.5**	**-**	**-**
1/1+1/2	Ashford Road (west) Ahead Right	U+O	A		1	36	-	713	1940:1741	1179+3	60.3 : 60.3%	2	0	0	2.2	11.0	8.1
2/1	Ashford Road (east) Ahead Left	U	B		1	36	-	802	1880	1159	69.2%	-	-	-	2.8	12.7	10.0
3/1	Old Ashford Road Left Right	U	C		1	13	-	265	1723	402	65.9%	-	-	-	2.5	33.8	4.9

C1 PRC for Signalled Lanes (%): 30.1 Total Delay for Signalled Lanes (pcuHr): 7.49 Cycle Time (s): 60
PRC Over All Lanes (%): 30.1 Total Delay Over All Lanes(pcuHr): 7.49