Norwich Western Link

Transport Assessment - Appendix 11 – Junction Model Results

Sub Appendix 11d – Junction 5 B1535 Marl Hill/ B1535 Church Street/Morton Lane (Weston Longville) crossroads

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Contents

Figures

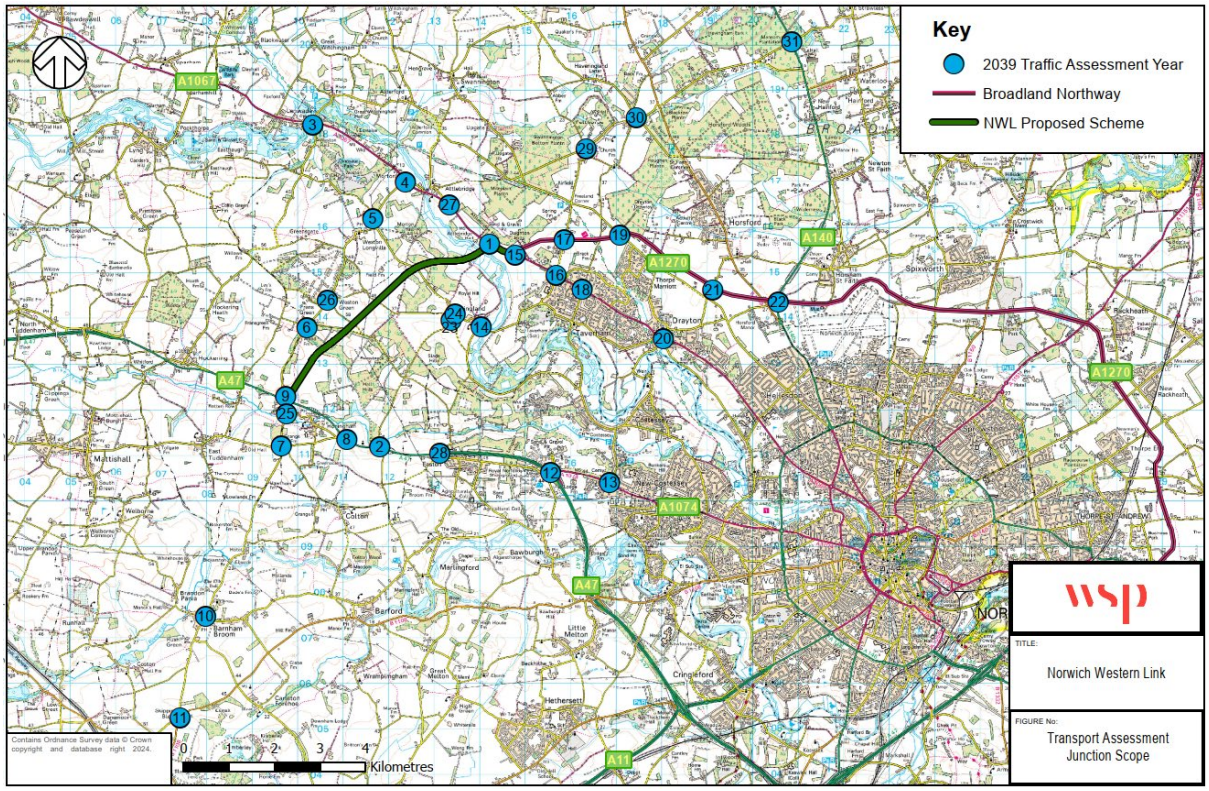
1 Junction Model Results

1.1.1 Junctions 10 modelling software output file that shows the junction capacity results for Junction 5 of the TA.

1.1.2 We have included a summary of key information shown in this document in an accessible format. However, some users may not be able to access all technical details. If you require this document in a more accessible format please contact norwichwesternlink@norfolk.gov.uk

1.1.3 The TA scope map is shown below as a location plan.

Figure 1-1 Junction Assessment Scope



1.1.4 The model results are presented for 2029 and 2039 future assessment years for AM and PM peak hours, taking 7.30-8.30am and AM peak and 5pm-6pm as PM peak.

1.1.5 The scenarios tested are as follows:

- Do Minimum – the baseline future situation with committed developments and planned highway improvements but without the Proposed Scheme.
- Do Something - the baseline future situation with the Proposed Scheme.
- Do Something + Mitigation - the baseline future situation with the Proposed Scheme added plus a package of traffic mitigation measures in the wider network (north of A1067 and south of A47 plus Honingham Lane closure).

J5 - B1535 Marl Hill/ B1535 Church Street/Morton Lane (Weston Longville) crossroads Results

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: J5.j10
Path: \\corp.pbwan.net\IN\IN_Projects\70118686-70061370-Norwich Western Link 2019 20\04 Record of Issue\4A Internal WSP Doc Registers\20240129_Model Reports(wo 2044)\J5
Report generation date: 29/01/2024 15:22:03

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2029DM									
Stream B-ACD	D1	0.2	7.54	0.19	A	D2	0.2	7.50	0.20	A
Stream A-BCD		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Stream D-ABC		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Stream C-ABD		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2029DS									
Stream B-ACD	D3	0.0	5.44	0.03	A	D4	0.1	5.62	0.07	A
Stream A-BCD		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Stream D-ABC		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Stream C-ABD		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2029DS_Mitigation									
Stream B-ACD	D5	0.0	5.41	0.03	A	D6	0.1	5.56	0.05	A
Stream A-BCD		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Stream D-ABC		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Stream C-ABD		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2039DM									
Stream B-ACD	D7	0.2	7.58	0.19	A	D8	0.3	7.93	0.23	A
Stream A-BCD		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Stream D-ABC		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Stream C-ABD		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2039DS									
Stream B-ACD	D9	0.0	5.46	0.02	A	D10	0.1	5.60	0.06	A
Stream A-BCD		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Stream D-ABC		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Stream C-ABD		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2039DS_Mitigation									
Stream B-ACD	D11	0.0	5.39	0.02	A	D12	0.1	5.53	0.05	A
Stream A-BCD		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Stream D-ABC		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Stream C-ABD		0.0	0.00	0.00	A		0.0	0.00	0.00	A

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

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

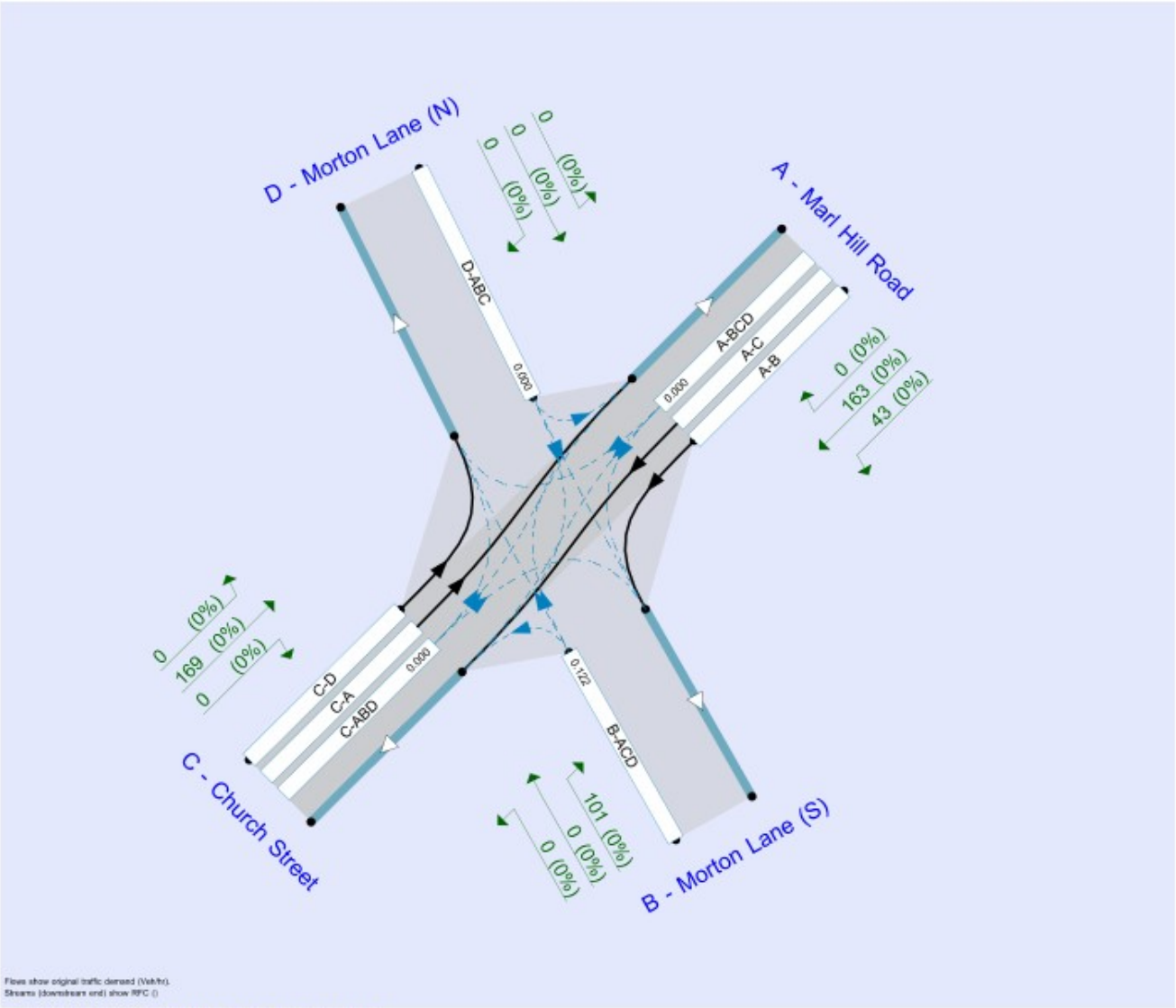
File summary

File Description

Title	Church Street/ Marl Hill Road/ Morton Street
Location	1.131316 ,52.701817 ,52.701817
Site number	5
Date	21/03/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INAA02374
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	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	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2029DM	AM	ONE HOUR	07:15	08:45	15	✓
D2	2029DM	PM	ONE HOUR	16:45	18:15	15	✓
D3	2029DS	AM	ONE HOUR	07:15	08:45	15	✓
D4	2029DS	PM	ONE HOUR	16:45	18:15	15	✓
D5	2029DS_Mitigation	AM	ONE HOUR	07:15	08:45	15	✓
D6	2029DS_Mitigation	PM	ONE HOUR	16:45	18:15	15	✓
D7	2039DM	AM	ONE HOUR	07:15	08:45	15	✓
D8	2039DM	PM	ONE HOUR	16:45	18:15	15	✓
D9	2039DS	AM	ONE HOUR	07:15	08:45	15	✓
D10	2039DS	PM	ONE HOUR	16:45	18:15	15	✓
D11	2039DS_Mitigation	AM	ONE HOUR	07:15	08:45	15	✓
D12	2039DS_Mitigation	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2029DM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - Marl Hill Road - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	C - Church Street - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J5	Church Street/ Marl Hill Road/ Morton Street	Crossroads	Two-way	Two-way	Two-way	Two-way		1.60	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.60	A

Arms

Arms

Arm	Name	Description	Arm type
A	Marl Hill Road		Major
B	Morton Lane (S)		Minor
C	Church Street		Major
D	Morton Lane (N)		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A - Marl Hill Road	5.85			133.9	✓	0.00
C - Church Street	5.85			141.0	✓	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 - Morton Lane (S)	One lane	4.60	124	148
D - Morton Lane (N)	One lane	4.22	142	134

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

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
A-D	652	-	-	-	-	-	-	0.254	0.363	0.254	-	-	-
B-A	689	0.126	0.319	0.319	-	-	-	0.201	0.456	-	0.319	0.319	0.160
B-C	832	0.128	0.325	-	-	-	-	-	-	-	-	-	-
B-D, nearside lane	689	0.126	0.319	0.319	-	-	-	0.201	0.456	0.201	-	-	-
B-D, offside lane	689	0.126	0.319	0.319	-	-	-	0.201	0.456	0.201	-	-	-
C-B	656	0.256	0.256	0.365	-	-	-	-	-	-	-	-	-
D-A	795	-	-	-	-	-	-	0.310	-	0.123	-	-	-
D-B, nearside lane	665	0.194	0.194	0.440	-	-	-	0.308	0.308	0.122	-	-	-
D-B, offside lane	665	0.194	0.194	0.440	-	-	-	0.308	0.308	0.122	-	-	-
D-C	665	-	0.194	0.440	0.154	0.308	0.308	0.308	0.308	0.122	-	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2029DM	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Marl Hill Road		ONE HOUR	✓	206	100.000
B - Morton Lane (S)		ONE HOUR	✓	101	100.000
C - Church Street		ONE HOUR	✓	169	100.000
D - Morton Lane (N)		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0	43	163	0
	B - Morton Lane (S)	101	0	0	0
	C - Church Street	169	0	0	0
	D - Morton Lane (N)	0	0	0	0

Proportions

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0.00	0.21	0.79	0.00
	B - Morton Lane (S)	1.00	0.00	0.00	0.00
	C - Church Street	1.00	0.00	0.00	0.00
	D - Morton Lane (N)	0.25	0.25	0.25	0.25

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0	0	0	0
	B - Morton Lane (S)	0	0	0	0
	C - Church Street	0	0	0	0
	D - Morton Lane (N)	0	0	0	0

Average PCU Per Veh

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	1.000	1.000	1.000	1.000
	B - Morton Lane (S)	1.000	1.000	1.000	1.000
	C - Church Street	1.000	1.000	1.000	1.000
	D - Morton Lane (N)	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Marl Hill Road	07:15-07:30	155	155
	07:30-07:45	185	185
	07:45-08:00	227	227
	08:00-08:15	227	227
	08:15-08:30	185	185
	08:30-08:45	155	155
B - Morton Lane (S)	07:15-07:30	76	76
	07:30-07:45	91	91
	07:45-08:00	111	111
	08:00-08:15	111	111
	08:15-08:30	91	91
	08:30-08:45	76	76
C - Church Street	07:15-07:30	127	127
	07:30-07:45	152	152
	07:45-08:00	186	186
	08:00-08:15	186	186
	08:15-08:30	152	152
	08:30-08:45	127	127
D - Morton Lane (N)	07:15-07:30	0	0
	07:30-07:45	0	0
	07:45-08:00	0	0
	08:00-08:15	0	0
	08:15-08:30	0	0
	08:30-08:45	0	0

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	0.19	7.54	0.2	A	93	139
A-BCD	0.00	0.00	0.0	A	0	0
A-B					39	59
A-C					150	225
D-ABC	0.00	0.00	0.0	A	0	0
C-ABD	0.00	0.00	0.0	A	0	0
C-D					0	0
C-A					155	232

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)	Unsignalised level of service
B-ACD	76	19	621	0.122	75	0.0	0.1	6.597	A
A-BCD	0	0	619	0.000	0	0.0	0.0	0.000	A
A-B	32	8			32				
A-C	123	31			123				
D-ABC	0	0	628	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	616	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	127	32			127				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	91	23	607	0.149	91	0.1	0.2	6.967	A
A-BCD	0	0	613	0.000	0	0.0	0.0	0.000	A
A-B	38	10			38				
A-C	147	37			147				
D-ABC	0	0	615	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	608	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	152	38			152				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	111	28	589	0.189	111	0.2	0.2	7.531	A
A-BCD	0	0	604	0.000	0	0.0	0.0	0.000	A
A-B	47	12			47				
A-C	180	45			180				
D-ABC	0	0	597	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	598	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	186	46			186				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	111	28	589	0.189	111	0.2	0.2	7.536	A
A-BCD	0	0	604	0.000	0	0.0	0.0	0.000	A
A-B	47	12			47				
A-C	180	45			180				
D-ABC	0	0	597	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	598	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	186	46			186				

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)	Unsignalised level of service
B-ACD	91	23	607	0.149	91	0.2	0.2	6.975	A
A-BCD	0	0	613	0.000	0	0.0	0.0	0.000	A
A-B	38	10			38				
A-C	147	37			147				
D-ABC	0	0	615	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	608	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	152	38			152				

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)	Unsignalised level of service
B-ACD	76	19	621	0.122	76	0.2	0.1	6.613	A
A-BCD	0	0	619	0.000	0	0.0	0.0	0.000	A
A-B	32	8			32				
A-C	123	31			123				
D-ABC	0	0	628	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	616	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	127	32			127				

2029DM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - Marl Hill Road - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	C - Church Street - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J5	Church Street/ Marl Hill Road/ Morton Street	Crossroads	Two-way	Two-way	Two-way	Two-way		1.88	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.88	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2029DM	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Marl Hill Road		ONE HOUR	✓	164	100.000
B - Morton Lane (S)		ONE HOUR	✓	108	100.000
C - Church Street		ONE HOUR	✓	161	100.000
D - Morton Lane (N)		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0	14	150	0
	B - Morton Lane (S)	108	0	0	0
	C - Church Street	161	0	0	0
	D - Morton Lane (N)	0	0	0	0

Proportions

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0.00	0.09	0.91	0.00
	B - Morton Lane (S)	1.00	0.00	0.00	0.00
	C - Church Street	1.00	0.00	0.00	0.00
	D - Morton Lane (N)	0.25	0.25	0.25	0.25

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0	0	0	0
	B - Morton Lane (S)	0	0	0	0
	C - Church Street	0	0	0	0
	D - Morton Lane (N)	0	0	0	0

Average PCU Per Veh

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	1.000	1.000	1.000	1.000
	B - Morton Lane (S)	1.000	1.000	1.000	1.000
	C - Church Street	1.000	1.000	1.000	1.000
	D - Morton Lane (N)	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Marl Hill Road	16:45-17:00	123	123
	17:00-17:15	147	147
	17:15-17:30	180	180
	17:30-17:45	180	180
	17:45-18:00	147	147
	18:00-18:15	123	123
B - Morton Lane (S)	16:45-17:00	82	82
	17:00-17:15	97	97
	17:15-17:30	119	119
	17:30-17:45	119	119
	17:45-18:00	97	97
	18:00-18:15	82	82
C - Church Street	16:45-17:00	121	121
	17:00-17:15	145	145
	17:15-17:30	177	177
	17:30-17:45	177	177
	17:45-18:00	145	145
	18:00-18:15	121	121
D - Morton Lane (N)	16:45-17:00	0	0
	17:00-17:15	0	0
	17:15-17:30	0	0
	17:30-17:45	0	0
	17:45-18:00	0	0
	18:00-18:15	0	0

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	0.20	7.50	0.2	A	99	149
A-BCD	0.00	0.00	0.0	A	0	0
A-B					13	19
A-C					137	206
D-ABC	0.00	0.00	0.0	A	0	0
C-ABD	0.00	0.00	0.0	A	0	0
C-D					0	0
C-A					148	221

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	82	20	628	0.130	81	0.0	0.1	6.577	A
A-BCD	0	0	621	0.000	0	0.0	0.0	0.000	A
A-B	11	3			11				
A-C	113	28			113				
D-ABC	0	0	633	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	624	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	121	30			121				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	97	24	616	0.158	97	0.1	0.2	6.941	A
A-BCD	0	0	615	0.000	0	0.0	0.0	0.000	A
A-B	13	3			13				
A-C	134	34			134				
D-ABC	0	0	622	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	618	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	145	36			145				

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)	Unsignalised level of service
B-ACD	119	30	599	0.199	119	0.2	0.2	7.494	A
A-BCD	0	0	607	0.000	0	0.0	0.0	0.000	A
A-B	16	4			16				
A-C	165	41			165				
D-ABC	0	0	605	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	610	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	177	44			177				

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)	Unsignalised level of service
B-ACD	119	30	599	0.199	119	0.2	0.2	7.500	A
A-BCD	0	0	607	0.000	0	0.0	0.0	0.000	A
A-B	16	4			16				
A-C	165	41			165				
D-ABC	0	0	605	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	610	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	177	44			177				

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)	Unsignalised level of service
B-ACD	97	24	616	0.158	98	0.2	0.2	6.950	A
A-BCD	0	0	615	0.000	0	0.0	0.0	0.000	A
A-B	13	3			13				
A-C	134	34			134				
D-ABC	0	0	622	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	618	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	145	36			145				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	82	20	628	0.130	82	0.2	0.2	6.597	A
A-BCD	0	0	621	0.000	0	0.0	0.0	0.000	A
A-B	11	3			11				
A-C	113	28			113				
D-ABC	0	0	633	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	624	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	121	30			121				

2029DS, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - Marl Hill Road - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	C - Church Street - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J5	Church Street/ Marl Hill Road/ Morton Street	Crossroads	Two-way	Two-way	Two-way	Two-way		1.56	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.56	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2029DS	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Marl Hill Road		ONE HOUR	✓	31	100.000
B - Morton Lane (S)		ONE HOUR	✓	17	100.000
C - Church Street		ONE HOUR	✓	12	100.000
D - Morton Lane (N)		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0	25	7	0
	B - Morton Lane (S)	17	0	0	0
	C - Church Street	12	0	0	0
	D - Morton Lane (N)	0	0	0	0

Proportions

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0.00	0.79	0.21	0.00
	B - Morton Lane (S)	1.00	0.00	0.00	0.00
	C - Church Street	1.00	0.00	0.00	0.00
	D - Morton Lane (N)	0.25	0.25	0.25	0.25

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0	0	0	0
	B - Morton Lane (S)	0	0	0	0
	C - Church Street	0	0	0	0
	D - Morton Lane (N)	0	0	0	0

Average PCU Per Veh

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	1.000	1.000	1.000	1.000
	B - Morton Lane (S)	1.000	1.000	1.000	1.000
	C - Church Street	1.000	1.000	1.000	1.000
	D - Morton Lane (N)	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Marl Hill Road	07:15-07:30	24	24
	07:30-07:45	28	28
	07:45-08:00	34	34
	08:00-08:15	34	34
	08:15-08:30	28	28
	08:30-08:45	24	24
B - Morton Lane (S)	07:15-07:30	13	13
	07:30-07:45	16	16
	07:45-08:00	19	19
	08:00-08:15	19	19
	08:15-08:30	16	16
	08:30-08:45	13	13
C - Church Street	07:15-07:30	9	9
	07:30-07:45	10	10
	07:45-08:00	13	13
	08:00-08:15	13	13
	08:15-08:30	10	10
	08:30-08:45	9	9
D - Morton Lane (N)	07:15-07:30	0	0
	07:30-07:45	0	0
	07:45-08:00	0	0
	08:00-08:15	0	0
	08:15-08:30	0	0
	08:30-08:45	0	0

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	0.03	5.44	0.0	A	16	24
A-BCD	0.00	0.00	0.0	A	0	0
A-B					23	34
A-C					6	9
D-ABC	0.00	0.00	0.0	A	0	0
C-ABD	0.00	0.00	0.0	A	0	0
C-D					0	0
C-A					11	16

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)	Unsignalised level of service
B-ACD	13	3	684	0.019	13	0.0	0.0	5.366	A
A-BCD	0	0	649	0.000	0	0.0	0.0	0.000	A
A-B	19	5			19				
A-C	5	1			5				
D-ABC	0	0	688	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	650	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	9	2			9				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	16	4	683	0.023	16	0.0	0.0	5.396	A
A-BCD	0	0	649	0.000	0	0.0	0.0	0.000	A
A-B	22	6			22				
A-C	6	1			6				
D-ABC	0	0	686	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	648	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	10	3			10				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	19	5	681	0.028	19	0.0	0.0	5.436	A
A-BCD	0	0	648	0.000	0	0.0	0.0	0.000	A
A-B	27	7			27				
A-C	7	2			7				
D-ABC	0	0	685	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	647	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	13	3			13				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	19	5	681	0.028	19	0.0	0.0	5.436	A
A-BCD	0	0	648	0.000	0	0.0	0.0	0.000	A
A-B	27	7			27				
A-C	7	2			7				
D-ABC	0	0	685	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	647	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	13	3			13				

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)	Unsignalised level of service
B-ACD	16	4	683	0.023	16	0.0	0.0	5.398	A
A-BCD	0	0	649	0.000	0	0.0	0.0	0.000	A
A-B	22	6			22				
A-C	6	1			6				
D-ABC	0	0	686	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	648	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	10	3			10				

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)	Unsignalised level of service
B-ACD	13	3	684	0.019	13	0.0	0.0	5.367	A
A-BCD	0	0	649	0.000	0	0.0	0.0	0.000	A
A-B	19	5			19				
A-C	5	1			5				
D-ABC	0	0	688	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	650	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	9	2			9				

2029DS, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - Marl Hill Road - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	C - Church Street - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J5	Church Street/ Marl Hill Road/ Morton Street	Crossroads	Two-way	Two-way	Two-way	Two-way		3.71	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.71	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2029DS	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Marl Hill Road		ONE HOUR	✓	12	100.000
B - Morton Lane (S)		ONE HOUR	✓	40	100.000
C - Church Street		ONE HOUR	✓	9	100.000
D - Morton Lane (N)		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0	7	5	0
	B - Morton Lane (S)	40	0	0	0
	C - Church Street	9	0	0	0
	D - Morton Lane (N)	0	0	0	0

Proportions

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0.00	0.61	0.39	0.00
	B - Morton Lane (S)	1.00	0.00	0.00	0.00
	C - Church Street	1.00	0.00	0.00	0.00
	D - Morton Lane (N)	0.25	0.25	0.25	0.25

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0	0	0	0
	B - Morton Lane (S)	0	0	0	0
	C - Church Street	0	0	0	0
	D - Morton Lane (N)	0	0	0	0

Average PCU Per Veh

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	1.000	1.000	1.000	1.000
	B - Morton Lane (S)	1.000	1.000	1.000	1.000
	C - Church Street	1.000	1.000	1.000	1.000
	D - Morton Lane (N)	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Marl Hill Road	16:45-17:00	9	9
	17:00-17:15	10	10
	17:15-17:30	13	13
	17:30-17:45	13	13
	17:45-18:00	10	10
	18:00-18:15	9	9
B - Morton Lane (S)	16:45-17:00	30	30
	17:00-17:15	36	36
	17:15-17:30	45	45
	17:30-17:45	45	45
	17:45-18:00	36	36
	18:00-18:15	30	30
C - Church Street	16:45-17:00	7	7
	17:00-17:15	8	8
	17:15-17:30	10	10
	17:30-17:45	10	10
	17:45-18:00	8	8
	18:00-18:15	7	7
D - Morton Lane (N)	16:45-17:00	0	0
	17:00-17:15	0	0
	17:15-17:30	0	0
	17:30-17:45	0	0
	17:45-18:00	0	0
	18:00-18:15	0	0

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	0.07	5.62	0.1	A	37	56
A-BCD	0.00	0.00	0.0	A	0	0
A-B					7	10
A-C					4	6
D-ABC	0.00	0.00	0.0	A	0	0
C-ABD	0.00	0.00	0.0	A	0	0
C-D					0	0
C-A					8	13

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	30	8	686	0.044	30	0.0	0.0	5.486	A
A-BCD	0	0	650	0.000	0	0.0	0.0	0.000	A
A-B	5	1			5				
A-C	3	0.85			3				
D-ABC	0	0	689	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	653	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	7	2			7				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	36	9	686	0.053	36	0.0	0.1	5.543	A
A-BCD	0	0	649	0.000	0	0.0	0.0	0.000	A
A-B	6	2			6				
A-C	4	1			4				
D-ABC	0	0	688	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	653	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	8	2			8				

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)	Unsignalised level of service
B-ACD	45	11	685	0.065	44	0.1	0.1	5.622	A
A-BCD	0	0	649	0.000	0	0.0	0.0	0.000	A
A-B	8	2			8				
A-C	5	1			5				
D-ABC	0	0	687	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	652	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	10	3			10				

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)	Unsignalised level of service
B-ACD	45	11	685	0.065	45	0.1	0.1	5.622	A
A-BCD	0	0	649	0.000	0	0.0	0.0	0.000	A
A-B	8	2			8				
A-C	5	1			5				
D-ABC	0	0	687	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	652	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	10	3			10				

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)	Unsignalised level of service
B-ACD	36	9	686	0.053	36	0.1	0.1	5.544	A
A-BCD	0	0	649	0.000	0	0.0	0.0	0.000	A
A-B	6	2			6				
A-C	4	1			4				
D-ABC	0	0	688	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	653	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	8	2			8				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	30	8	686	0.044	30	0.1	0.0	5.491	A
A-BCD	0	0	650	0.000	0	0.0	0.0	0.000	A
A-B	5	1			5				
A-C	3	0.85			3				
D-ABC	0	0	689	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	653	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	7	2			7				

2029DS_Mitigation, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - Marl Hill Road - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	C - Church Street - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J5	Church Street/ Marl Hill Road/ Morton Street	Crossroads	Two-way	Two-way	Two-way	Two-way		2.15	A

Junction Network

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2029DS_Mitigation	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Marl Hill Road		ONE HOUR	✓	19	100.000
B - Morton Lane (S)		ONE HOUR	✓	17	100.000
C - Church Street		ONE HOUR	✓	7	100.000
D - Morton Lane (N)		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0	12	7	0
	B - Morton Lane (S)	17	0	0	0
	C - Church Street	7	0	0	0
	D - Morton Lane (N)	0	0	0	0

Proportions

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0.00	0.65	0.35	0.00
	B - Morton Lane (S)	1.00	0.00	0.00	0.00
	C - Church Street	1.00	0.00	0.00	0.00
	D - Morton Lane (N)	0.25	0.25	0.25	0.25

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0	0	0	0
	B - Morton Lane (S)	0	0	0	0
	C - Church Street	0	0	0	0
	D - Morton Lane (N)	0	0	0	0

Average PCU Per Veh

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	1.000	1.000	1.000	1.000
	B - Morton Lane (S)	1.000	1.000	1.000	1.000
	C - Church Street	1.000	1.000	1.000	1.000
	D - Morton Lane (N)	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Marl Hill Road	07:15-07:30	14	14
	07:30-07:45	17	17
	07:45-08:00	20	20
	08:00-08:15	20	20
	08:15-08:30	17	17
	08:30-08:45	14	14
B - Morton Lane (S)	07:15-07:30	12	12
	07:30-07:45	15	15
	07:45-08:00	18	18
	08:00-08:15	18	18
	08:15-08:30	15	15
	08:30-08:45	12	12
C - Church Street	07:15-07:30	5	5
	07:30-07:45	6	6
	07:45-08:00	7	7
	08:00-08:15	7	7
	08:15-08:30	6	6
	08:30-08:45	5	5
D - Morton Lane (N)	07:15-07:30	0	0
	07:30-07:45	0	0
	07:45-08:00	0	0
	08:00-08:15	0	0
	08:15-08:30	0	0
	08:30-08:45	0	0

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	0.03	5.41	0.0	A	15	23
A-BCD	0.00	0.00	0.0	A	0	0
A-B					11	16
A-C					6	9
D-ABC	0.00	0.00	0.0	A	0	0
C-ABD	0.00	0.00	0.0	A	0	0
C-D					0	0
C-A					6	9

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)	Unsignalised level of service
B-ACD	12	3	686	0.018	12	0.0	0.0	5.346	A
A-BCD	0	0	650	0.000	0	0.0	0.0	0.000	A
A-B	9	2			9				
A-C	5	1			5				
D-ABC	0	0	690	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	652	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	5	1			5				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	15	4	685	0.022	15	0.0	0.0	5.371	A
A-BCD	0	0	650	0.000	0	0.0	0.0	0.000	A
A-B	11	3			11				
A-C	6	1			6				
D-ABC	0	0	689	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	651	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	6	1			6				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	18	5	684	0.027	18	0.0	0.0	5.406	A
A-BCD	0	0	650	0.000	0	0.0	0.0	0.000	A
A-B	13	3			13				
A-C	7	2			7				
D-ABC	0	0	688	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	650	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	7	2			7				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	18	5	684	0.027	18	0.0	0.0	5.406	A
A-BCD	0	0	650	0.000	0	0.0	0.0	0.000	A
A-B	13	3			13				
A-C	7	2			7				
D-ABC	0	0	688	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	650	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	7	2			7				

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)	Unsignalised level of service
B-ACD	15	4	685	0.022	15	0.0	0.0	5.373	A
A-BCD	0	0	650	0.000	0	0.0	0.0	0.000	A
A-B	11	3			11				
A-C	6	1			6				
D-ABC	0	0	689	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	651	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	6	1			6				

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)	Unsignalised level of service
B-ACD	12	3	686	0.018	12	0.0	0.0	5.348	A
A-BCD	0	0	650	0.000	0	0.0	0.0	0.000	A
A-B	9	2			9				
A-C	5	1			5				
D-ABC	0	0	690	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	652	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	5	1			5				

2029DS_Mitigation, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - Marl Hill Road - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	C - Church Street - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J5	Church Street/ Marl Hill Road/ Morton Street	Crossroads	Two-way	Two-way	Two-way	Two-way		3.50	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.50	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2029DS_Mitigation	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Marl Hill Road		ONE HOUR	✓	11	100.000
B - Morton Lane (S)		ONE HOUR	✓	34	100.000
C - Church Street		ONE HOUR	✓	9	100.000
D - Morton Lane (N)		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0	6	5	0
	B - Morton Lane (S)	34	0	0	0
	C - Church Street	9	0	0	0
	D - Morton Lane (N)	0	0	0	0

Proportions

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0.00	0.59	0.41	0.00
	B - Morton Lane (S)	1.00	0.00	0.00	0.00
	C - Church Street	1.00	0.00	0.00	0.00
	D - Morton Lane (N)	0.25	0.25	0.25	0.25

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0	0	0	0
	B - Morton Lane (S)	0	0	0	0
	C - Church Street	0	0	0	0
	D - Morton Lane (N)	0	0	0	0

Average PCU Per Veh

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	1.000	1.000	1.000	1.000
	B - Morton Lane (S)	1.000	1.000	1.000	1.000
	C - Church Street	1.000	1.000	1.000	1.000
	D - Morton Lane (N)	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Marl Hill Road	16:45-17:00	8	8
	17:00-17:15	10	10
	17:15-17:30	12	12
	17:30-17:45	12	12
	17:45-18:00	10	10
	18:00-18:15	8	8
B - Morton Lane (S)	16:45-17:00	26	26
	17:00-17:15	31	31
	17:15-17:30	37	37
	17:30-17:45	37	37
	17:45-18:00	31	31
	18:00-18:15	26	26
C - Church Street	16:45-17:00	7	7
	17:00-17:15	8	8
	17:15-17:30	10	10
	17:30-17:45	10	10
	17:45-18:00	8	8
	18:00-18:15	7	7
D - Morton Lane (N)	16:45-17:00	0	0
	17:00-17:15	0	0
	17:15-17:30	0	0
	17:30-17:45	0	0
	17:45-18:00	0	0
	18:00-18:15	0	0

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	0.05	5.56	0.1	A	31	47
A-BCD	0.00	0.00	0.0	A	0	0
A-B					6	9
A-C					4	6
D-ABC	0.00	0.00	0.0	A	0	0
C-ABD	0.00	0.00	0.0	A	0	0
C-D					0	0
C-A					8	13

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	26	6	686	0.037	25	0.0	0.0	5.446	A
A-BCD	0	0	650	0.000	0	0.0	0.0	0.000	A
A-B	5	1			5				
A-C	3	0.85			3				
D-ABC	0	0	689	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	654	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	7	2			7				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	31	8	686	0.045	31	0.0	0.0	5.494	A
A-BCD	0	0	649	0.000	0	0.0	0.0	0.000	A
A-B	6	1			6				
A-C	4	1			4				
D-ABC	0	0	689	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	653	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	8	2			8				

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)	Unsignalised level of service
B-ACD	37	9	685	0.055	37	0.0	0.1	5.559	A
A-BCD	0	0	649	0.000	0	0.0	0.0	0.000	A
A-B	7	2			7				
A-C	5	1			5				
D-ABC	0	0	687	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	653	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	10	3			10				

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)	Unsignalised level of service
B-ACD	37	9	685	0.055	37	0.1	0.1	5.559	A
A-BCD	0	0	649	0.000	0	0.0	0.0	0.000	A
A-B	7	2			7				
A-C	5	1			5				
D-ABC	0	0	687	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	653	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	10	3			10				

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)	Unsignalised level of service
B-ACD	31	8	686	0.045	31	0.1	0.0	5.495	A
A-BCD	0	0	649	0.000	0	0.0	0.0	0.000	A
A-B	6	1			6				
A-C	4	1			4				
D-ABC	0	0	689	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	653	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	8	2			8				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	26	6	686	0.037	26	0.0	0.0	5.448	A
A-BCD	0	0	650	0.000	0	0.0	0.0	0.000	A
A-B	5	1			5				
A-C	3	0.85			3				
D-ABC	0	0	689	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	654	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	7	2			7				

2039DM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - Marl Hill Road - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	C - Church Street - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J5	Church Street/ Marl Hill Road/ Morton Street	Crossroads	Two-way	Two-way	Two-way	Two-way		1.48	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.48	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2039DM	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Marl Hill Road		ONE HOUR	✓	240	100.000
B - Morton Lane (S)		ONE HOUR	✓	98	100.000
C - Church Street		ONE HOUR	✓	167	100.000
D - Morton Lane (N)		ONE HOUR	✓	0.16	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0	71	169	0
	B - Morton Lane (S)	89	0	0	9
	C - Church Street	167	0	0	0.48
	D - Morton Lane (N)	0	0.16	0.01	0

Proportions

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0.00	0.30	0.70	0.00
	B - Morton Lane (S)	0.91	0.00	0.00	0.09
	C - Church Street	1.00	0.00	0.00	0.00
	D - Morton Lane (N)	0.00	0.96	0.04	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0	0	0	0
	B - Morton Lane (S)	0	0	0	0
	C - Church Street	0	0	0	0
	D - Morton Lane (N)	0	0	0	0

Average PCU Per Veh

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	1.000	1.000	1.000	1.000
	B - Morton Lane (S)	1.000	1.000	1.000	1.000
	C - Church Street	1.000	1.000	1.000	1.000
	D - Morton Lane (N)	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Marl Hill Road	07:15-07:30	181	181
	07:30-07:45	216	216
	07:45-08:00	264	264
	08:00-08:15	264	264
	08:15-08:30	216	216
	08:30-08:45	181	181
B - Morton Lane (S)	07:15-07:30	74	74
	07:30-07:45	88	88
	07:45-08:00	108	108
	08:00-08:15	108	108
	08:15-08:30	88	88
	08:30-08:45	74	74
C - Church Street	07:15-07:30	126	126
	07:30-07:45	150	150
	07:45-08:00	184	184
	08:00-08:15	184	184
	08:15-08:30	150	150
	08:30-08:45	126	126
D - Morton Lane (N)	07:15-07:30	0	0
	07:30-07:45	0	0
	07:45-08:00	0	0
	08:00-08:15	0	0
	08:15-08:30	0	0
	08:30-08:45	0	0

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	0.19	7.58	0.2	A	90	135
A-BCD	0.00	0.00	0.0	A	0	0
A-B					65	98
A-C					155	233
D-ABC	0.00	0.00	0.0	A	0	0
C-ABD	0.00	0.00	0.0	A	0	0
C-D					0.44	0.67
C-A					153	229

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)	Unsignalised level of service
B-ACD	74	19	617	0.120	74	0.0	0.1	6.620	A
A-BCD	0	0	620	0.000	0	0.0	0.0	0.000	A
A-B	54	13			54				
A-C	127	32			127				
D-ABC	0	0	625	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	609	0.000	0	0.0	0.0	0.000	A
C-D	0.36	0.09			0.36				
C-A	125	31			125				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	88	22	603	0.147	88	0.1	0.2	6.997	A
A-BCD	0	0	613	0.000	0	0.0	0.0	0.000	A
A-B	64	16			64				
A-C	152	38			152				
D-ABC	0	0	612	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	600	0.000	0	0.0	0.0	0.000	A
C-D	0.43	0.11			0.43				
C-A	150	37			150				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	108	27	583	0.186	108	0.2	0.2	7.574	A
A-BCD	0	0	605	0.000	0	0.0	0.0	0.000	A
A-B	78	20			78				
A-C	186	47			186				
D-ABC	0	0	593	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	588	0.000	0	0.0	0.0	0.000	A
C-D	0.53	0.13			0.53				
C-A	184	46			184				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	108	27	583	0.186	108	0.2	0.2	7.580	A
A-BCD	0	0	605	0.000	0	0.0	0.0	0.000	A
A-B	78	20			78				
A-C	186	47			186				
D-ABC	0	0	593	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	588	0.000	0	0.0	0.0	0.000	A
C-D	0.53	0.13			0.53				
C-A	184	46			184				

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)	Unsignalised level of service
B-ACD	88	22	603	0.147	89	0.2	0.2	7.006	A
A-BCD	0	0	613	0.000	0	0.0	0.0	0.000	A
A-B	64	16			64				
A-C	152	38			152				
D-ABC	0	0	612	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	600	0.000	0	0.0	0.0	0.000	A
C-D	0.43	0.11			0.43				
C-A	150	37			150				

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)	Unsignalised level of service
B-ACD	74	19	617	0.120	74	0.2	0.1	6.636	A
A-BCD	0	0	620	0.000	0	0.0	0.0	0.000	A
A-B	54	13			54				
A-C	127	32			127				
D-ABC	0	0	625	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	609	0.000	0	0.0	0.0	0.000	A
C-D	0.36	0.09			0.36				
C-A	125	31			125				

2039DM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - Marl Hill Road - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	C - Church Street - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J5	Church Street/ Marl Hill Road/ Morton Street	Crossroads	Two-way	Two-way	Two-way	Two-way		1.98	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.98	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2039DM	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Marl Hill Road		ONE HOUR	✓	211	100.000
B - Morton Lane (S)		ONE HOUR	✓	124	100.000
C - Church Street		ONE HOUR	✓	163	100.000
D - Morton Lane (N)		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0	54	157	0
	B - Morton Lane (S)	124	0	0	0.37
	C - Church Street	163	0	0	0
	D - Morton Lane (N)	0	0	0	0

Proportions

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0.00	0.26	0.74	0.00
	B - Morton Lane (S)	1.00	0.00	0.00	0.00
	C - Church Street	1.00	0.00	0.00	0.00
	D - Morton Lane (N)	0.25	0.25	0.25	0.25

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0	0	0	0
	B - Morton Lane (S)	0	0	0	0
	C - Church Street	0	0	0	0
	D - Morton Lane (N)	0	0	0	0

Average PCU Per Veh

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	1.000	1.000	1.000	1.000
	B - Morton Lane (S)	1.000	1.000	1.000	1.000
	C - Church Street	1.000	1.000	1.000	1.000
	D - Morton Lane (N)	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Marl Hill Road	16:45-17:00	159	159
	17:00-17:15	189	189
	17:15-17:30	232	232
	17:30-17:45	232	232
	17:45-18:00	189	189
	18:00-18:15	159	159
B - Morton Lane (S)	16:45-17:00	94	94
	17:00-17:15	112	112
	17:15-17:30	137	137
	17:30-17:45	137	137
	17:45-18:00	112	112
	18:00-18:15	94	94
C - Church Street	16:45-17:00	123	123
	17:00-17:15	147	147
	17:15-17:30	180	180
	17:30-17:45	180	180
	17:45-18:00	147	147
	18:00-18:15	123	123
D - Morton Lane (N)	16:45-17:00	0	0
	17:00-17:15	0	0
	17:15-17:30	0	0
	17:30-17:45	0	0
	17:45-18:00	0	0
	18:00-18:15	0	0

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	0.23	7.93	0.3	A	114	171
A-BCD	0.00	0.00	0.0	A	0	0
A-B					50	74
A-C					144	215
D-ABC	0.00	0.00	0.0	A	0	0
C-ABD	0.00	0.00	0.0	A	0	0
C-D					0	0
C-A					150	225

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	94	23	622	0.150	93	0.0	0.2	8.796	A
A-BCD	0	0	620	0.000	0	0.0	0.0	0.000	A
A-B	41	10			41				
A-C	118	29			118				
D-ABC	0	0	628	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	615	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	123	31			123				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	112	28	609	0.183	112	0.2	0.2	7.239	A
A-BCD	0	0	614	0.000	0	0.0	0.0	0.000	A
A-B	49	12			49				
A-C	141	35			141				
D-ABC	0	0	615	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	607	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	147	37			147				

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)	Unsignalised level of service
B-ACD	137	34	591	0.232	137	0.2	0.3	7.921	A
A-BCD	0	0	606	0.000	0	0.0	0.0	0.000	A
A-B	60	15			60				
A-C	172	43			172				
D-ABC	0	0	598	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	596	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	180	45			180				

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)	Unsignalised level of service
B-ACD	137	34	591	0.232	137	0.3	0.3	7.930	A
A-BCD	0	0	606	0.000	0	0.0	0.0	0.000	A
A-B	60	15			60				
A-C	172	43			172				
D-ABC	0	0	598	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	596	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	180	45			180				

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)	Unsignalised level of service
B-ACD	112	28	609	0.183	112	0.3	0.2	7.249	A
A-BCD	0	0	614	0.000	0	0.0	0.0	0.000	A
A-B	49	12			49				
A-C	141	35			141				
D-ABC	0	0	615	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	607	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	147	37			147				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	94	23	622	0.150	94	0.2	0.2	6.820	A
A-BCD	0	0	620	0.000	0	0.0	0.0	0.000	A
A-B	41	10			41				
A-C	118	29			118				
D-ABC	0	0	628	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	615	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	123	31			123				

2039DS, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - Marl Hill Road - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	C - Church Street - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J5	Church Street/ Marl Hill Road/ Morton Street	Crossroads	Two-way	Two-way	Two-way	Two-way		1.17	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.17	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2039DS	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Marl Hill Road		ONE HOUR	✓	48	100.000
B - Morton Lane (S)		ONE HOUR	✓	15	100.000
C - Church Street		ONE HOUR	✓	8	100.000
D - Morton Lane (N)		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0	24	23	0
	B - Morton Lane (S)	15	0	0	0
	C - Church Street	8	0	0	0
	D - Morton Lane (N)	0	0	0	0

Proportions

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0.00	0.51	0.49	0.00
	B - Morton Lane (S)	1.00	0.00	0.00	0.00
	C - Church Street	1.00	0.00	0.00	0.00
	D - Morton Lane (N)	0.25	0.25	0.25	0.25

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0	0	0	0
	B - Morton Lane (S)	0	0	0	0
	C - Church Street	0	0	0	0
	D - Morton Lane (N)	0	0	0	0

Average PCU Per Veh

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	1.000	1.000	1.000	1.000
	B - Morton Lane (S)	1.000	1.000	1.000	1.000
	C - Church Street	1.000	1.000	1.000	1.000
	D - Morton Lane (N)	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Marl Hill Road	07:15-07:30	36	36
	07:30-07:45	43	43
	07:45-08:00	53	53
	08:00-08:15	53	53
	08:15-08:30	43	43
	08:30-08:45	36	36
B - Morton Lane (S)	07:15-07:30	12	12
	07:30-07:45	14	14
	07:45-08:00	17	17
	08:00-08:15	17	17
	08:15-08:30	14	14
	08:30-08:45	12	12
C - Church Street	07:15-07:30	6	6
	07:30-07:45	7	7
	07:45-08:00	9	9
	08:00-08:15	9	9
	08:15-08:30	7	7
	08:30-08:45	6	6
D - Morton Lane (N)	07:15-07:30	0	0
	07:30-07:45	0	0
	07:45-08:00	0	0
	08:00-08:15	0	0
	08:15-08:30	0	0
	08:30-08:45	0	0

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	0.02	5.46	0.0	A	14	21
A-BCD	0.00	0.00	0.0	A	0	0
A-B					22	34
A-C					22	32
D-ABC	0.00	0.00	0.0	A	0	0
C-ABD	0.00	0.00	0.0	A	0	0
C-D					0	0
C-A					7	11

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)	Unsignalised level of service
B-ACD	12	3	680	0.017	11	0.0	0.0	5.383	A
A-BCD	0	0	650	0.000	0	0.0	0.0	0.000	A
A-B	18	5			18				
A-C	18	4			18				
D-ABC	0	0	686	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	646	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	6	2			6				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	14	3	678	0.020	14	0.0	0.0	5.416	A
A-BCD	0	0	650	0.000	0	0.0	0.0	0.000	A
A-B	22	5			22				
A-C	21	5			21				
D-ABC	0	0	685	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	645	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	7	2			7				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	17	4	676	0.025	17	0.0	0.0	5.461	A
A-BCD	0	0	649	0.000	0	0.0	0.0	0.000	A
A-B	27	7			27				
A-C	26	6			26				
D-ABC	0	0	683	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	642	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	9	2			9				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	17	4	676	0.025	17	0.0	0.0	5.461	A
A-BCD	0	0	649	0.000	0	0.0	0.0	0.000	A
A-B	27	7			27				
A-C	26	6			26				
D-ABC	0	0	683	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	642	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	9	2			9				

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)	Unsignalised level of service
B-ACD	14	3	678	0.020	14	0.0	0.0	5.418	A
A-BCD	0	0	650	0.000	0	0.0	0.0	0.000	A
A-B	22	5			22				
A-C	21	5			21				
D-ABC	0	0	685	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	645	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	7	2			7				

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)	Unsignalised level of service
B-ACD	12	3	680	0.017	12	0.0	0.0	5.383	A
A-BCD	0	0	650	0.000	0	0.0	0.0	0.000	A
A-B	18	5			18				
A-C	18	4			18				
D-ABC	0	0	686	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	646	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	6	2			6				

2039DS, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - Marl Hill Road - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	C - Church Street - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J5	Church Street/ Marl Hill Road/ Morton Street	Crossroads	Two-way	Two-way	Two-way	Two-way		3.62	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.62	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2039DS	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Marl Hill Road		ONE HOUR	✓	12	100.000
B - Morton Lane (S)		ONE HOUR	✓	38	100.000
C - Church Street		ONE HOUR	✓	9	100.000
D - Morton Lane (N)		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0	7	5	0
	B - Morton Lane (S)	38	0	0	0
	C - Church Street	9	0	0	0
	D - Morton Lane (N)	0	0	0	0

Proportions

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0.00	0.57	0.43	0.00
	B - Morton Lane (S)	1.00	0.00	0.00	0.00
	C - Church Street	1.00	0.00	0.00	0.00
	D - Morton Lane (N)	0.25	0.25	0.25	0.25

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0	0	0	0
	B - Morton Lane (S)	0	0	0	0
	C - Church Street	0	0	0	0
	D - Morton Lane (N)	0	0	0	0

Average PCU Per Veh

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	1.000	1.000	1.000	1.000
	B - Morton Lane (S)	1.000	1.000	1.000	1.000
	C - Church Street	1.000	1.000	1.000	1.000
	D - Morton Lane (N)	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Marl Hill Road	16:45-17:00	9	9
	17:00-17:15	10	10
	17:15-17:30	13	13
	17:30-17:45	13	13
	17:45-18:00	10	10
	18:00-18:15	9	9
B - Morton Lane (S)	16:45-17:00	28	28
	17:00-17:15	34	34
	17:15-17:30	42	42
	17:30-17:45	42	42
	17:45-18:00	34	34
	18:00-18:15	28	28
C - Church Street	16:45-17:00	7	7
	17:00-17:15	8	8
	17:15-17:30	10	10
	17:30-17:45	10	10
	17:45-18:00	8	8
	18:00-18:15	7	7
D - Morton Lane (N)	16:45-17:00	0	0
	17:00-17:15	0	0
	17:15-17:30	0	0
	17:30-17:45	0	0
	17:45-18:00	0	0
	18:00-18:15	0	0

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	0.06	5.60	0.1	A	35	52
A-BCD	0.00	0.00	0.0	A	0	0
A-B					6	9
A-C					5	7
D-ABC	0.00	0.00	0.0	A	0	0
C-ABD	0.00	0.00	0.0	A	0	0
C-D					0	0
C-A					8	13

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	28	7	686	0.041	28	0.0	0.0	5.470	A
A-BCD	0	0	650	0.000	0	0.0	0.0	0.000	A
A-B	5	1			5				
A-C	4	0.94			4				
D-ABC	0	0	689	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	653	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	7	2			7				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	34	8	686	0.050	34	0.0	0.1	5.524	A
A-BCD	0	0	649	0.000	0	0.0	0.0	0.000	A
A-B	6	1			6				
A-C	5	1			5				
D-ABC	0	0	688	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	653	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	8	2			8				

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)	Unsignalised level of service
B-ACD	42	10	685	0.061	42	0.1	0.1	5.597	A
A-BCD	0	0	649	0.000	0	0.0	0.0	0.000	A
A-B	7	2			7				
A-C	6	1			6				
D-ABC	0	0	687	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	652	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	10	3			10				

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)	Unsignalised level of service
B-ACD	42	10	685	0.061	42	0.1	0.1	5.597	A
A-BCD	0	0	649	0.000	0	0.0	0.0	0.000	A
A-B	7	2			7				
A-C	6	1			6				
D-ABC	0	0	687	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	652	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	10	3			10				

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)	Unsignalised level of service
B-ACD	34	8	686	0.050	34	0.1	0.1	5.527	A
A-BCD	0	0	649	0.000	0	0.0	0.0	0.000	A
A-B	6	1			6				
A-C	5	1			5				
D-ABC	0	0	688	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	653	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	8	2			8				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	28	7	686	0.041	29	0.1	0.0	5.473	A
A-BCD	0	0	650	0.000	0	0.0	0.0	0.000	A
A-B	5	1			5				
A-C	4	0.94			4				
D-ABC	0	0	689	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	653	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	7	2			7				

2039DS_Mitigation, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - Marl Hill Road - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	C - Church Street - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J5	Church Street/ Marl Hill Road/ Morton Street	Crossroads	Two-way	Two-way	Two-way	Two-way		2.04	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.04	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2039DS_Mitigation	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Marl Hill Road		ONE HOUR	✓	18	100.000
B - Morton Lane (S)		ONE HOUR	✓	15	100.000
C - Church Street		ONE HOUR	✓	6	100.000
D - Morton Lane (N)		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0	11	7	0
	B - Morton Lane (S)	15	0	0	0
	C - Church Street	6	0	0	0
	D - Morton Lane (N)	0	0	0	0

Proportions

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0.00	0.61	0.39	0.00
	B - Morton Lane (S)	1.00	0.00	0.00	0.00
	C - Church Street	1.00	0.00	0.00	0.00
	D - Morton Lane (N)	0.25	0.25	0.25	0.25

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0	0	0	0
	B - Morton Lane (S)	0	0	0	0
	C - Church Street	0	0	0	0
	D - Morton Lane (N)	0	0	0	0

Average PCU Per Veh

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	1.000	1.000	1.000	1.000
	B - Morton Lane (S)	1.000	1.000	1.000	1.000
	C - Church Street	1.000	1.000	1.000	1.000
	D - Morton Lane (N)	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Marl Hill Road	07:15-07:30	14	14
	07:30-07:45	16	16
	07:45-08:00	20	20
	08:00-08:15	20	20
	08:15-08:30	16	16
	08:30-08:45	14	14
B - Morton Lane (S)	07:15-07:30	11	11
	07:30-07:45	14	14
	07:45-08:00	17	17
	08:00-08:15	17	17
	08:15-08:30	14	14
	08:30-08:45	11	11
C - Church Street	07:15-07:30	5	5
	07:30-07:45	6	6
	07:45-08:00	7	7
	08:00-08:15	7	7
	08:15-08:30	6	6
	08:30-08:45	5	5
D - Morton Lane (N)	07:15-07:30	0	0
	07:30-07:45	0	0
	07:45-08:00	0	0
	08:00-08:15	0	0
	08:15-08:30	0	0
	08:30-08:45	0	0

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	0.02	5.39	0.0	A	14	21
A-BCD	0.00	0.00	0.0	A	0	0
A-B					10	15
A-C					7	10
D-ABC	0.00	0.00	0.0	A	0	0
C-ABD	0.00	0.00	0.0	A	0	0
C-D					0	0
C-A					6	9

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)	Unsignalised level of service
B-ACD	11	3	686	0.017	11	0.0	0.0	5.338	A
A-BCD	0	0	650	0.000	0	0.0	0.0	0.000	A
A-B	8	2			8				
A-C	5	1			5				
D-ABC	0	0	690	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	652	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	5	1			5				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	14	3	685	0.020	14	0.0	0.0	5.361	A
A-BCD	0	0	650	0.000	0	0.0	0.0	0.000	A
A-B	10	3			10				
A-C	6	2			6				
D-ABC	0	0	689	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	651	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	6	1			6				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	17	4	684	0.024	17	0.0	0.0	5.394	A
A-BCD	0	0	650	0.000	0	0.0	0.0	0.000	A
A-B	12	3			12				
A-C	8	2			8				
D-ABC	0	0	688	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	650	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	7	2			7				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	17	4	684	0.024	17	0.0	0.0	5.394	A
A-BCD	0	0	650	0.000	0	0.0	0.0	0.000	A
A-B	12	3			12				
A-C	8	2			8				
D-ABC	0	0	688	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	650	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	7	2			7				

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)	Unsignalised level of service
B-ACD	14	3	685	0.020	14	0.0	0.0	5.361	A
A-BCD	0	0	650	0.000	0	0.0	0.0	0.000	A
A-B	10	3			10				
A-C	6	2			6				
D-ABC	0	0	689	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	651	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	6	1			6				

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)	Unsignalised level of service
B-ACD	11	3	686	0.017	11	0.0	0.0	5.338	A
A-BCD	0	0	650	0.000	0	0.0	0.0	0.000	A
A-B	8	2			8				
A-C	5	1			5				
D-ABC	0	0	690	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	652	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	5	1			5				

2039DS_Mitigation, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - Marl Hill Road - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Major arm width	C - Church Street - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J5	Church Street/ Marl Hill Road/ Morton Street	Crossroads	Two-way	Two-way	Two-way	Two-way		3.39	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.39	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2039DS_Mitigation	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Marl Hill Road		ONE HOUR	✓	10	100.000
B - Morton Lane (S)		ONE HOUR	✓	31	100.000
C - Church Street		ONE HOUR	✓	9	100.000
D - Morton Lane (N)		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0	6	5	0
	B - Morton Lane (S)	31	0	0	0
	C - Church Street	9	0	0	0
	D - Morton Lane (N)	0	0	0	0

Proportions

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0.00	0.56	0.44	0.00
	B - Morton Lane (S)	1.00	0.00	0.00	0.00
	C - Church Street	1.00	0.00	0.00	0.00
	D - Morton Lane (N)	0.25	0.25	0.25	0.25

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	0	0	0	0
	B - Morton Lane (S)	0	0	0	0
	C - Church Street	0	0	0	0
	D - Morton Lane (N)	0	0	0	0

Average PCU Per Veh

		To			
		A - Marl Hill Road	B - Morton Lane (S)	C - Church Street	D - Morton Lane (N)
From	A - Marl Hill Road	1.000	1.000	1.000	1.000
	B - Morton Lane (S)	1.000	1.000	1.000	1.000
	C - Church Street	1.000	1.000	1.000	1.000
	D - Morton Lane (N)	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Marl Hill Road	16:45-17:00	8	8
	17:00-17:15	9	9
	17:15-17:30	12	12
	17:30-17:45	12	12
	17:45-18:00	9	9
	18:00-18:15	8	8
B - Morton Lane (S)	16:45-17:00	23	23
	17:00-17:15	28	28
	17:15-17:30	34	34
	17:30-17:45	34	34
	17:45-18:00	28	28
	18:00-18:15	23	23
C - Church Street	16:45-17:00	7	7
	17:00-17:15	8	8
	17:15-17:30	10	10
	17:30-17:45	10	10
	17:45-18:00	8	8
	18:00-18:15	7	7
D - Morton Lane (N)	16:45-17:00	0	0
	17:00-17:15	0	0
	17:15-17:30	0	0
	17:30-17:45	0	0
	17:45-18:00	0	0
	18:00-18:15	0	0

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	0.05	5.53	0.1	A	28	43
A-BCD	0.00	0.00	0.0	A	0	0
A-B					5	8
A-C					4	6
D-ABC	0.00	0.00	0.0	A	0	0
C-ABD	0.00	0.00	0.0	A	0	0
C-D					0	0
C-A					8	13

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	23	6	686	0.034	23	0.0	0.0	5.426	A
A-BCD	0	0	650	0.000	0	0.0	0.0	0.000	A
A-B	4	1			4				
A-C	3	0.86			3				
D-ABC	0	0	690	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	654	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	7	2			7				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	28	7	686	0.041	28	0.0	0.0	5.470	A
A-BCD	0	0	649	0.000	0	0.0	0.0	0.000	A
A-B	5	1			5				
A-C	4	1			4				
D-ABC	0	0	689	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	653	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	8	2			8				

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)	Unsignalised level of service
B-ACD	34	9	685	0.050	34	0.0	0.1	5.530	A
A-BCD	0	0	649	0.000	0	0.0	0.0	0.000	A
A-B	6	2			6				
A-C	5	1			5				
D-ABC	0	0	688	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	653	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	10	3			10				

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)	Unsignalised level of service
B-ACD	34	9	685	0.050	34	0.1	0.1	5.530	A
A-BCD	0	0	649	0.000	0	0.0	0.0	0.000	A
A-B	6	2			6				
A-C	5	1			5				
D-ABC	0	0	688	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	653	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	10	3			10				

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)	Unsignalised level of service
B-ACD	28	7	686	0.041	28	0.1	0.0	5.473	A
A-BCD	0	0	649	0.000	0	0.0	0.0	0.000	A
A-B	5	1			5				
A-C	4	1			4				
D-ABC	0	0	689	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	653	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	8	2			8				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	23	6	686	0.034	23	0.0	0.0	5.429	A
A-BCD	0	0	650	0.000	0	0.0	0.0	0.000	A
A-B	4	1			4				
A-C	3	0.86			3				
D-ABC	0	0	690	0.000	0	0.0	0.0	0.000	A
C-ABD	0	0	654	0.000	0	0.0	0.0	0.000	A
C-D	0	0			0				
C-A	7	2			7				