APPENDIX 2.4
TRAFFIC MODELLING – SOUTHERN COMPACT ROUNDABOUT LAYOUT – REPORT

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896

Filename: Compact roundabout layout.j9
Path: C:\Users\304919\Box\PB8301 Haverhill\PB8301 Team\PB8301 Technical Data\Calcs\Internal Junction Testing\Southern Junc Options
Report generation date: 21/03/2019 11:27:56

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2500 Dwellings							
Arm 1	4.0	18.73	0.80	C	1.0	7.33	0.48	A
Arm 2	0.5	8.09	0.34	A	1.0	9.05	0.48	A
Arm 3	0.6	6.08	0.36	A	2.3	13.75	0.69	B
	900 Dwellings							
Arm 1	0.1	4.09	0.07	A	0.0	3.97	0.04	A
Arm 2	0.2	4.64	0.14	A	0.2	4.69	0.15	A
Arm 3	0.2	4.28	0.14	A	0.2	4.44	0.16	A

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

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

File summary

File Description

Title	Haverhill Southern Roundabout
Location	
Site number	
Date	20/03/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORPORATEROOT\304919
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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
✓		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)
D1	2500 Dwellings	AM	ONE HOUR	07:45	09:15	15
D2	2500 Dwellings	PM	ONE HOUR	16:45	18:15	15
D3	900 Dwellings	AM	ONE HOUR	07:45	09:15	15
D4	900 Dwellings	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2500 Dwellings, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Southern Junction	Standard Roundabout		1, 2, 3	13.72	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	East	
2	South	
3	North	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.10	5.10	4.4	18.3	22.0	60.7	
2	3.10	3.40	1.3	14.7	22.0	32.6	
3	3.10	3.80	4.2	30.0	22.0	48.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.496	1054
2	0.504	965
3	0.510	1028

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)
D1	2500 Dwellings	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	722	100.000
2		✓	218	100.000
3		✓	312	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	256	466
	2	111	0	107
	3	202	110	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	5	5
	2	5	0	5
	3	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
1	0.80	18.73	4.0	20.4	C
2	0.34	8.09	0.5	2.4	A
3	0.36	6.08	0.6	2.7	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	544	82	1014	0.536	539	1.2	7.888	A
2	164	348	790	0.208	163	0.3	6.019	A
3	235	83	986	0.238	234	0.3	5.019	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	649	99	1005	0.646	646	1.9	10.447	B
2	196	417	755	0.260	196	0.4	6.752	A
3	280	100	977	0.287	280	0.4	5.421	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	795	121	995	0.799	787	3.8	17.569	C
2	240	508	709	0.338	239	0.5	8.031	A
3	344	122	966	0.356	343	0.6	6.063	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	795	121	994	0.799	794	4.0	18.726	C
2	240	513	707	0.340	240	0.5	8.094	A
3	344	122	966	0.356	344	0.6	6.076	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	649	99	1005	0.646	657	2.0	11.094	B
2	196	424	752	0.261	197	0.4	6.818	A
3	280	100	977	0.287	281	0.4	5.439	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	544	83	1013	0.536	547	1.2	8.147	A
2	164	353	788	0.208	165	0.3	6.070	A
3	235	84	985	0.238	235	0.3	5.043	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.19	0.58	1.05	1.47	1.52			N/A	N/A
2	0.27	0.00	0.00	0.27	0.27			N/A	N/A
3	0.33	0.00	0.00	0.33	0.33			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.85	0.07	1.04	4.36	6.25			N/A	N/A
2	0.36	0.00	0.00	0.36	0.36			N/A	N/A
3	0.42	0.00	0.00	0.42	0.42			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	3.82	0.03	0.35	7.38	20.42			N/A	N/A
2	0.53	0.03	0.27	0.53	0.53			N/A	N/A
3	0.57	0.03	0.27	0.57	0.57			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	3.99	0.03	0.31	3.99	14.98			N/A	N/A
2	0.54	0.03	0.32	1.45	2.44			N/A	N/A
3	0.58	0.03	0.31	1.32	2.67			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.97	0.05	0.50	5.23	8.41			N/A	N/A
2	0.37	0.00	0.00	0.37	0.37			N/A	N/A
3	0.43	0.00	0.00	0.43	0.43			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.24	0.04	0.38	3.08	5.90			N/A	N/A
2	0.28	0.00	0.00	0.28	0.28			N/A	N/A
3	0.33	0.00	0.00	0.33	0.33			N/A	N/A

2500 Dwellings, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Southern Junction	Standard Roundabout		1, 2, 3	10.44	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)
D2	2500 Dwellings	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	435	100.000
2		✓	356	100.000
3		✓	559	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	154	281
	2	246	0	110
	3	449	110	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	5	5
	2	5	0	5
	3	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
1	0.48	7.33	1.0	2.3	A
2	0.48	9.05	1.0	2.9	A
3	0.69	13.75	2.3	8.6	B

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	327	82	1014	0.323	326	0.5	5.477	A
2	268	210	859	0.312	266	0.5	6.352	A
3	421	184	934	0.451	417	0.8	7.272	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	391	99	1006	0.389	390	0.7	6.138	A
2	320	252	838	0.382	319	0.6	7.277	A
3	503	221	915	0.549	501	1.3	9.087	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	479	120	995	0.481	478	1.0	7.288	A
2	392	309	810	0.484	391	1.0	8.990	A
3	615	270	890	0.691	611	2.2	13.373	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	479	121	994	0.482	479	1.0	7.331	A
2	392	309	809	0.484	392	1.0	9.053	A
3	615	271	890	0.692	615	2.3	13.748	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	391	100	1005	0.389	392	0.7	6.181	A
2	320	253	838	0.382	321	0.7	7.339	A
3	503	222	915	0.549	506	1.3	9.352	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	327	83	1013	0.323	328	0.5	5.524	A
2	268	212	858	0.312	269	0.5	6.419	A
3	421	186	933	0.451	423	0.9	7.431	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.50	0.00	0.00	0.50	0.50			N/A	N/A
2	0.47	0.00	0.00	0.47	0.47			N/A	N/A
3	0.85	0.58	1.05	1.47	1.52			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.66	0.15	0.94	1.45	1.51			N/A	N/A
2	0.64	0.15	0.94	1.45	1.51			N/A	N/A
3	1.25	0.09	1.03	2.27	3.03			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.96	0.03	0.27	0.96	0.96			N/A	N/A
2	0.97	0.03	0.27	0.97	0.97			N/A	N/A
3	2.25	0.03	0.30	2.25	8.61			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.97	0.03	0.29	0.97	2.29			N/A	N/A
2	0.98	0.03	0.29	0.98	2.86			N/A	N/A
3	2.30	0.03	0.29	2.30	4.94			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.68	0.14	0.93	1.45	1.51			N/A	N/A
2	0.66	0.10	0.86	1.43	1.50			N/A	N/A
3	1.31	0.06	0.85	2.83	3.98			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.51	0.04	0.45	1.32	1.45			N/A	N/A
2	0.48	0.04	0.41	1.28	1.43			N/A	N/A
3	0.88	0.04	0.45	1.95	3.02			N/A	N/A

900 Dwellings, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Southern Junction	Standard Roundabout		1, 2, 3	4.38	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	900 Dwellings	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	63	100.000
2		✓	116	100.000
3		✓	127	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	22	41
	2	9	0	107
	3	17	110	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	5	5
	2	5	0	5
	3	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
1	0.07	4.09	0.1	0.5	A
2	0.14	4.64	0.2	0.5	A
3	0.14	4.28	0.2	0.5	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	47	82	1014	0.047	47	0.1	3.910	A
2	87	31	950	0.092	87	0.1	4.379	A
3	96	7	1024	0.093	95	0.1	4.066	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	57	99	1005	0.056	57	0.1	3.983	A
2	104	37	947	0.110	104	0.1	4.487	A
3	114	8	1024	0.112	114	0.1	4.155	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	69	121	994	0.070	69	0.1	4.085	A
2	128	45	942	0.136	128	0.2	4.639	A
3	140	10	1023	0.137	140	0.2	4.280	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	69	121	994	0.070	69	0.1	4.085	A
2	128	45	942	0.136	128	0.2	4.639	A
3	140	10	1023	0.137	140	0.2	4.280	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	57	99	1005	0.056	57	0.1	3.984	A
2	104	37	947	0.110	104	0.1	4.488	A
3	114	8	1024	0.112	114	0.1	4.156	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	47	83	1013	0.047	47	0.1	3.913	A
2	87	31	950	0.092	87	0.1	4.386	A
3	96	7	1024	0.093	96	0.1	4.071	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.05	0.00	0.00	0.05	0.05			N/A	N/A
2	0.11	0.00	0.00	0.11	0.11			N/A	N/A
3	0.11	0.00	0.00	0.11	0.11			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.06	0.03	0.26	0.47	0.50			N/A	N/A
2	0.13	0.00	0.00	0.13	0.13			N/A	N/A
3	0.13	0.00	0.00	0.13	0.13			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.08	0.03	0.27	0.49	0.52			N/A	N/A
2	0.16	0.03	0.27	0.48	0.51			N/A	N/A
3	0.17	0.03	0.27	0.48	0.51			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.08	0.00	0.00	0.08	0.08			N/A	N/A
2	0.16	0.03	0.26	0.47	0.50			N/A	N/A
3	0.17	0.03	0.26	0.47	0.50			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.06	0.00	0.00	0.06	0.06			N/A	N/A
2	0.13	0.00	0.00	0.13	0.13			N/A	N/A
3	0.13	0.00	0.00	0.13	0.13			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.05	0.00	0.00	0.05	0.05			N/A	N/A
2	0.11	0.00	0.00	0.11	0.11			N/A	N/A
3	0.11	0.00	0.00	0.11	0.11			N/A	N/A

900 Dwellings, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Southern Junction	Standard Roundabout		1, 2, 3	4.49	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)
D4	900 Dwellings	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	39	100.000
2		✓	132	100.000
3		✓	150	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	14	25
	2	22	0	110
	3	40	110	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	5	5
	2	5	0	5
	3	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
1	0.04	3.97	0.0	0.5	A
2	0.15	4.69	0.2	0.5	A
3	0.16	4.44	0.2	0.5	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	29	82	1014	0.029	29	0.0	3.840	A
2	99	19	956	0.104	99	0.1	4.410	A
3	113	16	1019	0.111	112	0.1	4.166	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	35	99	1005	0.035	35	0.0	3.895	A
2	119	22	954	0.124	119	0.1	4.525	A
3	135	20	1018	0.132	135	0.2	4.280	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	43	121	994	0.043	43	0.0	3.972	A
2	145	28	951	0.153	145	0.2	4.687	A
3	165	24	1016	0.163	165	0.2	4.442	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	43	121	994	0.043	43	0.0	3.972	A
2	145	28	951	0.153	145	0.2	4.689	A
3	165	24	1016	0.163	165	0.2	4.444	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	35	99	1005	0.035	35	0.0	3.895	A
2	119	22	954	0.124	119	0.2	4.529	A
3	135	20	1018	0.132	135	0.2	4.282	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	29	83	1013	0.029	29	0.0	3.841	A
2	99	19	956	0.104	99	0.1	4.416	A
3	113	17	1019	0.111	113	0.1	4.170	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.03	0.00	0.00	0.03	0.03			N/A	N/A
2	0.12	0.00	0.00	0.12	0.12			N/A	N/A
3	0.13	0.00	0.00	0.13	0.13			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.04	0.03	0.26	0.47	0.50			N/A	N/A
2	0.15	0.00	0.00	0.15	0.15			N/A	N/A
3	0.16	0.00	0.00	0.16	0.16			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.05	0.03	0.27	0.48	0.51			N/A	N/A
2	0.19	0.03	0.27	0.48	0.51			N/A	N/A
3	0.20	0.03	0.27	0.48	0.51			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.05	0.00	0.00	0.05	0.05			N/A	N/A
2	0.19	0.03	0.26	0.47	0.50			N/A	N/A
3	0.20	0.03	0.26	0.48	0.50			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.04	0.00	0.00	0.04	0.04			N/A	N/A
2	0.15	0.00	0.00	0.15	0.15			N/A	N/A
3	0.16	0.00	0.00	0.16	0.16			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.03	0.00	0.00	0.03	0.03			N/A	N/A
2	0.12	0.00	0.00	0.12	0.12			N/A	N/A
3	0.13	0.00	0.00	0.13	0.13			N/A	N/A