

Junctions 9	
ARCADY 9 - Roundabout Module	
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-
- »Base 2023, AM
 - »Base 2023, PM
 - »FB 2025, AM
 - »FB 2025, PM
 - »FB 2028, AM
 - »FB 2028, PM
 - »DS 2028, AM
 - »DS 2028, PM
 - »FB 2036, AM
 - »FB 2036, PM
 - »DS 2036, AM
 - »DS 2036, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
Base 2023								
1 - Wide Lane (NE)	1.4	5.64	0.55	A	2.2	7.33	0.69	A
2 - Wide Lane (S)	1.2	10.72	0.54	B	3.3	23.15	0.77	C
4 - Wide Lane (S)	1.2	7.90	0.54	A	0.5	6.08	0.33	A
3 - A335 (NW)	5.6	14.79	0.85	B	2.3	6.56	0.69	A
FB 2025								
1 - Wide Lane (NE)	1.5	6.03	0.58	A	2.5	8.05	0.71	A
2 - Wide Lane (S)	1.4	11.64	0.58	B	4.6	30.78	0.83	D
4 - Wide Lane (S)	1.3	8.40	0.56	A	0.6	6.37	0.36	A
3 - A335 (NW)	7.5	19.42	0.89	C	2.6	7.22	0.71	A
FB 2028								
1 - Wide Lane (NE)	1.7	6.80	0.61	A	3.0	9.65	0.75	A
2 - Wide Lane (S)	1.9	14.03	0.65	B	9.6	58.32	0.93	F
4 - Wide Lane (S)	1.5	9.31	0.60	A	0.7	6.91	0.40	A
3 - A335 (NW)	14.4	36.04	0.95	E	3.2	8.74	0.76	A
DS 2028								
1 - Wide Lane (NE)	2.4	9.21	0.70	A	4.4	13.94	0.82	B
2 - Wide Lane (S)	5.6	33.23	0.84	D	99.2	444.56	1.27	F
4 - Wide Lane (S)	1.6	9.81	0.62	A	0.8	7.37	0.44	A
3 - A335 (NW)	103.1	185.23	1.12	F	6.3	15.59	0.86	C
FB 2036								
1 - Wide Lane (NE)	2.2	8.25	0.67	A	4.5	13.68	0.82	B
2 - Wide Lane (S)	3.4	21.93	0.77	C	49.5	221.87	1.13	F
4 - Wide Lane (S)	2.1	11.94	0.68	B	0.9	8.15	0.48	A
3 - A335 (NW)	73.4	139.81	1.08	F	5.4	13.82	0.85	B
DS 2036								
1 - Wide Lane (NE)	3.1	10.85	0.74	B	7.4	22.99	0.89	C
2 - Wide Lane (S)	16.1	82.38	0.98	F	191.4	873.02	1.47	F
4 - Wide Lane (S)	2.3	12.71	0.70	B	1.1	8.88	0.53	A
3 - A335 (NW)	208.0	441.56	1.25	F	15.0	35.39	0.95	E

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	A335, Wide Ln Rbt
Location	50.950678, -1.364807
Site number	
Date	28/03/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INJV01568
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

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base 2023	AM	ONE HOUR	07:45	09:15	15	✓
D2	Base 2023	PM	ONE HOUR	16:45	18:15	15	✓
D3	FB 2025	AM	ONE HOUR	07:45	09:15	15	✓
D4	FB 2025	PM	ONE HOUR	16:45	18:15	15	✓
D5	FB 2028	AM	ONE HOUR	07:45	09:15	15	✓
D6	FB 2028	PM	ONE HOUR	16:45	18:15	15	✓
D7	DS 2028	AM	ONE HOUR	07:45	09:15	15	✓
D8	DS 2028	PM	ONE HOUR	16:45	18:15	15	✓
D9	FB 2036	AM	ONE HOUR	07:45	09:15	15	✓
D10	FB 2036	PM	ONE HOUR	16:45	18:15	15	✓
D11	DS 2036	AM	ONE HOUR	07:45	09:15	15	✓
D12	DS 2036	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

Base 2023, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 4, 3	10.66	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Wide Lane (NE)	
2	Wide Lane (S)	
4	Wide Lane (S)	
3	A335 (NW)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Wide Lane (NE)	6.00	7.80	13.0	29.0	22.0	62.7	
2 - Wide Lane (S)	3.72	3.72	0.0	41.9	22.0	42.0	
4 - Wide Lane (S)	3.72	4.76	21.0	23.9	22.0	42.0	
3 - A335 (NW)	3.80	8.10	31.0	45.9	22.0	38.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Wide Lane (NE)	0.691	1980
2 - Wide Lane (S)	0.537	1109
4 - Wide Lane (S)	0.581	1352
3 - A335 (NW)	0.735	2049

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
2 - Wide Lane (S)	Direct		0
4 - Wide Lane (S)	Direct		0

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base 2023	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	790	100.000
2 - Wide Lane (S)		ONE HOUR	✓	380	100.000
4 - Wide Lane (S)		ONE HOUR	✓	484	100.000
3 - A335 (NW)		ONE HOUR	✓	1276	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	232	0	558
	2 - Wide Lane (S)	0	0	380	0
	4 - Wide Lane (S)	484	0	0	0
	3 - A335 (NW)	737	536	0	3

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	0	13
	2 - Wide Lane (S)	0	0	7	0
	4 - Wide Lane (S)	1	0	0	0
	3 - A335 (NW)	4	7	0	50

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	0.55	5.64	1.4	A	725	1087
2 - Wide Lane (S)	0.54	10.72	1.2	B	349	523
4 - Wide Lane (S)	0.54	7.90	1.2	A	444	666
3 - A335 (NW)	0.85	14.79	5.6	B	1171	1756

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	595	149	404	1701	0.350	592	914	0.0	0.6	3.559	A
2 - Wide Lane (S)	286	72	421	883	0.324	284	575	0.0	0.5	6.406	A
4 - Wide Lane (S)	364	91	421	1108	0.329	362	284	0.0	0.5	4.867	A
3 - A335 (NW)	961	240	362	1783	0.539	956	421	0.0	1.2	4.557	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	710	178	483	1646	0.431	709	1095	0.6	0.8	4.216	A
2 - Wide Lane (S)	342	85	504	839	0.407	341	689	0.5	0.7	7.720	A
4 - Wide Lane (S)	435	109	504	1059	0.411	434	341	0.5	0.7	5.810	A
3 - A335 (NW)	1147	287	434	1730	0.663	1144	504	1.2	2.0	6.430	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	870	217	588	1574	0.553	868	1335	0.8	1.3	5.585	A
2 - Wide Lane (S)	418	105	616	778	0.538	416	839	0.7	1.2	10.584	B
4 - Wide Lane (S)	533	133	616	994	0.536	531	416	0.7	1.1	7.819	A
3 - A335 (NW)	1405	351	531	1659	0.847	1392	616	2.0	5.3	13.568	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	870	217	593	1571	0.554	870	1344	1.3	1.4	5.644	A
2 - Wide Lane (S)	418	105	618	778	0.538	418	845	1.2	1.2	10.715	B
4 - Wide Lane (S)	533	133	618	993	0.537	533	418	1.1	1.2	7.900	A
3 - A335 (NW)	1405	351	533	1658	0.848	1404	618	5.3	5.6	14.788	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	710	178	490	1641	0.433	712	1107	1.4	0.8	4.267	A
2 - Wide Lane (S)	342	85	506	838	0.408	344	697	1.2	0.7	7.827	A
4 - Wide Lane (S)	435	109	506	1058	0.411	437	344	1.2	0.7	5.869	A
3 - A335 (NW)	1147	287	437	1728	0.664	1161	506	5.6	2.1	6.839	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	595	149	407	1699	0.350	596	922	0.8	0.6	3.590	A
2 - Wide Lane (S)	286	72	423	882	0.324	287	580	0.7	0.5	6.482	A
4 - Wide Lane (S)	364	91	423	1106	0.329	365	287	0.7	0.5	4.914	A
3 - A335 (NW)	961	240	365	1781	0.539	964	423	2.1	1.2	4.663	A

Base 2023, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 4, 3	9.58	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base 2023	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 (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	990	100.000
2 - Wide Lane (S)		ONE HOUR	✓	488	100.000
4 - Wide Lane (S)		ONE HOUR	✓	274	100.000
3 - A335 (NW)		ONE HOUR	✓	1139	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	297	0	689
	2 - Wide Lane (S)	0	0	488	0
	4 - Wide Lane (S)	274	0	0	0
	3 - A335 (NW)	620	514	0	5

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
	1 - Wide Lane (NE)	0	1	0	1
	2 - Wide Lane (S)	0	0	4	0
	4 - Wide Lane (S)	2	0	0	0
	3 - A335 (NW)	5	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	0.69	7.33	2.2	A	908	1363
2 - Wide Lane (S)	0.77	23.15	3.3	C	448	672
4 - Wide Lane (S)	0.33	6.08	0.5	A	251	377
3 - A335 (NW)	0.69	6.56	2.3	A	1045	1568

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	745	186	389	1711	0.436	742	673	0.0	0.8	3.739	A
2 - Wide Lane (S)	367	92	523	828	0.444	364	608	0.0	0.8	8.012	A
4 - Wide Lane (S)	206	52	523	1048	0.197	205	364	0.0	0.2	4.354	A
3 - A335 (NW)	857	214	208	1896	0.452	854	520	0.0	0.9	3.582	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	890	222	466	1658	0.537	888	806	0.8	1.2	4.713	A
2 - Wide Lane (S)	439	110	626	773	0.568	437	728	0.8	1.3	11.066	B
4 - Wide Lane (S)	246	62	626	988	0.249	246	437	0.2	0.3	4.946	A
3 - A335 (NW)	1024	256	250	1866	0.549	1022	623	0.9	1.3	4.433	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1090	273	570	1587	0.687	1086	986	1.2	2.2	7.205	A
2 - Wide Lane (S)	537	134	766	698	0.770	530	890	1.3	3.2	21.381	C
4 - Wide Lane (S)	302	75	766	907	0.333	301	530	0.3	0.5	6.053	A
3 - A335 (NW)	1254	314	305	1825	0.687	1250	761	1.3	2.2	6.474	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1090	273	571	1585	0.688	1090	989	2.2	2.2	7.331	A
2 - Wide Lane (S)	537	134	768	697	0.771	537	893	3.2	3.3	23.155	C
4 - Wide Lane (S)	302	75	768	905	0.333	302	537	0.5	0.5	6.081	A
3 - A335 (NW)	1254	314	306	1824	0.687	1254	764	2.2	2.3	6.565	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	890	222	468	1657	0.537	894	810	2.2	1.2	4.793	A
2 - Wide Lane (S)	439	110	630	771	0.569	446	732	3.3	1.4	11.793	B
4 - Wide Lane (S)	246	62	630	986	0.250	247	446	0.5	0.3	4.976	A
3 - A335 (NW)	1024	256	251	1865	0.549	1028	627	2.3	1.3	4.494	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	745	186	391	1710	0.436	747	677	1.2	0.8	3.784	A
2 - Wide Lane (S)	367	92	527	826	0.445	370	612	1.4	0.8	8.235	A
4 - Wide Lane (S)	206	52	527	1046	0.197	207	370	0.3	0.3	4.378	A
3 - A335 (NW)	857	214	210	1895	0.452	859	524	1.3	0.9	3.623	A

FB 2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 4, 3	12.98	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	FB 2025	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	811	100.000
2 - Wide Lane (S)		ONE HOUR	✓	404	100.000
4 - Wide Lane (S)		ONE HOUR	✓	504	100.000
3 - A335 (NW)		ONE HOUR	✓	1320	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	241	0	570
	2 - Wide Lane (S)	0	0	404	0
	4 - Wide Lane (S)	504	0	0	0
	3 - A335 (NW)	752	568	0	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
	1 - Wide Lane (NE)	0	3	0	13
	2 - Wide Lane (S)	0	0	6	0
	4 - Wide Lane (S)	1	0	0	0
	3 - A335 (NW)	4	7	0	50

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	0.58	6.03	1.5	A	744	1116
2 - Wide Lane (S)	0.58	11.64	1.4	B	371	556
4 - Wide Lane (S)	0.56	8.40	1.3	A	462	694
3 - A335 (NW)	0.89	19.42	7.5	C	1211	1817

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	611	153	425	1686	0.362	608	940	0.0	0.6	3.660	A
2 - Wide Lane (S)	304	76	427	880	0.346	302	606	0.0	0.6	6.580	A
4 - Wide Lane (S)	379	95	427	1104	0.344	377	302	0.0	0.5	4.992	A
3 - A335 (NW)	994	248	377	1772	0.561	988	427	0.0	1.3	4.804	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	729	182	509	1629	0.448	728	1126	0.6	0.9	4.384	A
2 - Wide Lane (S)	363	91	512	834	0.435	362	725	0.6	0.8	8.061	A
4 - Wide Lane (S)	453	113	512	1055	0.430	452	362	0.5	0.8	6.026	A
3 - A335 (NW)	1187	297	452	1717	0.691	1183	512	1.3	2.3	7.041	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	893	223	617	1554	0.575	891	1370	0.9	1.5	5.943	A
2 - Wide Lane (S)	445	111	626	773	0.575	442	882	0.8	1.4	11.455	B
4 - Wide Lane (S)	555	139	626	988	0.562	553	442	0.8	1.3	8.311	A
3 - A335 (NW)	1453	363	553	1643	0.885	1435	626	2.3	6.9	16.883	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	893	223	624	1549	0.577	893	1382	1.5	1.5	6.025	A
2 - Wide Lane (S)	445	111	628	772	0.576	445	890	1.4	1.4	11.639	B
4 - Wide Lane (S)	555	139	628	987	0.562	555	445	1.3	1.3	8.405	A
3 - A335 (NW)	1453	363	555	1642	0.885	1451	628	6.9	7.5	19.420	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	729	182	519	1621	0.450	731	1143	1.5	0.9	4.455	A
2 - Wide Lane (S)	363	91	514	833	0.436	366	737	1.4	0.8	8.199	A
4 - Wide Lane (S)	453	113	514	1053	0.430	455	366	1.3	0.8	6.098	A
3 - A335 (NW)	1187	297	455	1715	0.692	1207	514	7.5	2.4	7.740	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	611	153	429	1683	0.363	612	949	0.9	0.6	3.691	A
2 - Wide Lane (S)	304	76	430	878	0.346	305	611	0.8	0.6	6.669	A
4 - Wide Lane (S)	379	95	430	1102	0.344	380	305	0.8	0.5	5.045	A
3 - A335 (NW)	994	248	380	1770	0.562	998	430	2.4	1.4	4.936	A

FB 2025, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 4, 3	11.50	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	FB 2025	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 (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1015	100.000
2 - Wide Lane (S)		ONE HOUR	✓	519	100.000
4 - Wide Lane (S)		ONE HOUR	✓	291	100.000
3 - A335 (NW)		ONE HOUR	✓	1174	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	308	0	703
	2 - Wide Lane (S)	0	0	519	0
	4 - Wide Lane (S)	291	0	0	0
	3 - A335 (NW)	633	536	0	5

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
	1 - Wide Lane (NE)	0	1	0	1
	2 - Wide Lane (S)	0	0	4	0
	4 - Wide Lane (S)	2	0	0	0
	3 - A335 (NW)	5	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	0.71	8.05	2.5	A	931	1397
2 - Wide Lane (S)	0.83	30.78	4.6	D	476	714
4 - Wide Lane (S)	0.36	6.37	0.6	A	267	401
3 - A335 (NW)	0.71	7.22	2.6	A	1077	1616

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	764	191	406	1700	0.450	761	696	0.0	0.8	3.859	A
2 - Wide Lane (S)	391	98	534	823	0.475	387	633	0.0	0.9	8.525	A
4 - Wide Lane (S)	219	55	534	1042	0.210	218	387	0.0	0.3	4.452	A
3 - A335 (NW)	884	221	221	1887	0.468	880	531	0.0	0.9	3.707	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	912	228	486	1645	0.555	911	833	0.8	1.2	4.943	A
2 - Wide Lane (S)	467	117	639	766	0.609	464	757	0.9	1.6	12.281	B
4 - Wide Lane (S)	262	65	639	981	0.267	261	464	0.3	0.4	5.101	A
3 - A335 (NW)	1055	264	265	1855	0.569	1054	635	0.9	1.4	4.665	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1118	279	594	1570	0.712	1113	1018	1.2	2.4	7.868	A
2 - Wide Lane (S)	571	143	781	690	0.828	561	926	1.6	4.3	26.906	D
4 - Wide Lane (S)	320	80	781	898	0.357	320	561	0.4	0.6	6.337	A
3 - A335 (NW)	1293	323	324	1811	0.714	1288	776	1.4	2.5	7.095	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1118	279	596	1569	0.712	1117	1022	2.4	2.5	8.048	A
2 - Wide Lane (S)	571	143	784	688	0.830	570	929	4.3	4.6	30.782	D
4 - Wide Lane (S)	320	80	784	896	0.357	320	570	0.6	0.6	6.373	A
3 - A335 (NW)	1293	323	325	1811	0.714	1292	779	2.5	2.6	7.224	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	912	228	489	1643	0.555	917	838	2.5	1.3	5.045	A
2 - Wide Lane (S)	467	117	643	764	0.611	478	762	4.6	1.7	13.614	B
4 - Wide Lane (S)	262	65	643	978	0.267	262	478	0.6	0.4	5.135	A
3 - A335 (NW)	1055	264	266	1854	0.569	1060	640	2.6	1.4	4.745	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	764	191	408	1698	0.450	766	700	1.3	0.8	3.908	A
2 - Wide Lane (S)	391	98	537	821	0.476	394	637	1.7	1.0	8.824	A
4 - Wide Lane (S)	219	55	537	1040	0.211	219	394	0.4	0.3	4.478	A
3 - A335 (NW)	884	221	223	1886	0.469	886	534	1.4	0.9	3.751	A

FB 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 4, 3	20.91	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	FB 2028	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	839	100.000
2 - Wide Lane (S)		ONE HOUR	✓	448	100.000
4 - Wide Lane (S)		ONE HOUR	✓	535	100.000
3 - A335 (NW)		ONE HOUR	✓	1395	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	259	0	580
	2 - Wide Lane (S)	0	0	448	0
	4 - Wide Lane (S)	535	0	0	0
	3 - A335 (NW)	765	627	0	3

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
	1 - Wide Lane (NE)	0	3	0	13
	2 - Wide Lane (S)	0	0	6	0
	4 - Wide Lane (S)	1	0	0	0
	3 - A335 (NW)	4	6	0	50

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	0.61	6.80	1.7	A	770	1155
2 - Wide Lane (S)	0.65	14.03	1.9	B	411	617
4 - Wide Lane (S)	0.60	9.31	1.5	A	491	736
3 - A335 (NW)	0.95	36.04	14.4	E	1280	1920

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	632	158	472	1654	0.382	629	973	0.0	0.7	3.841	A
2 - Wide Lane (S)	337	84	437	875	0.386	335	663	0.0	0.7	7.035	A
4 - Wide Lane (S)	403	101	437	1098	0.367	400	335	0.0	0.6	5.196	A
3 - A335 (NW)	1050	263	400	1755	0.598	1044	437	0.0	1.5	5.270	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	754	189	564	1591	0.474	753	1165	0.7	1.0	4.709	A
2 - Wide Lane (S)	403	101	523	828	0.486	401	794	0.7	1.0	8.913	A
4 - Wide Lane (S)	481	120	523	1048	0.459	480	401	0.6	0.8	6.389	A
3 - A335 (NW)	1254	314	480	1697	0.739	1249	523	1.5	2.9	8.337	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	924	231	677	1513	0.611	921	1409	1.0	1.7	6.644	A
2 - Wide Lane (S)	493	123	640	766	0.644	490	958	1.0	1.8	13.660	B
4 - Wide Lane (S)	589	147	640	980	0.601	586	490	0.8	1.5	9.176	A
3 - A335 (NW)	1536	384	586	1618	0.949	1499	640	2.9	12.1	26.097	D

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	924	231	689	1504	0.614	924	1426	1.7	1.7	6.803	A
2 - Wide Lane (S)	493	123	642	765	0.645	493	971	1.8	1.9	14.028	B
4 - Wide Lane (S)	589	147	642	979	0.602	589	493	1.5	1.5	9.315	A
3 - A335 (NW)	1536	384	589	1616	0.950	1527	642	12.1	14.4	36.042	E

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	754	189	587	1575	0.479	757	1196	1.7	1.0	4.846	A
2 - Wide Lane (S)	403	101	526	827	0.487	406	818	1.9	1.0	9.146	A
4 - Wide Lane (S)	481	120	526	1046	0.460	483	406	1.5	0.9	6.491	A
3 - A335 (NW)	1254	314	483	1694	0.740	1299	526	14.4	3.1	10.618	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	632	158	477	1651	0.383	633	983	1.0	0.7	3.885	A
2 - Wide Lane (S)	337	84	440	873	0.386	339	670	1.0	0.7	7.162	A
4 - Wide Lane (S)	403	101	440	1096	0.367	404	339	0.9	0.6	5.258	A
3 - A335 (NW)	1050	263	404	1753	0.599	1056	440	3.1	1.6	5.472	A

FB 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 4, 3	17.83	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	FB 2028	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 (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1051	100.000
2 - Wide Lane (S)		ONE HOUR	✓	576	100.000
4 - Wide Lane (S)		ONE HOUR	✓	324	100.000
3 - A335 (NW)		ONE HOUR	✓	1232	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	331	0	716
	2 - Wide Lane (S)	0	0	576	0
	4 - Wide Lane (S)	324	0	0	0
	3 - A335 (NW)	644	583	0	5

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
	1 - Wide Lane (NE)	0	1	0	1
	2 - Wide Lane (S)	0	0	3	0
	4 - Wide Lane (S)	2	0	0	0
	3 - A335 (NW)	5	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	0.75	9.65	3.0	A	964	1447
2 - Wide Lane (S)	0.93	58.32	9.6	F	529	793
4 - Wide Lane (S)	0.40	6.91	0.7	A	297	446
3 - A335 (NW)	0.76	8.74	3.2	A	1131	1696

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	791	198	441	1676	0.472	788	728	0.0	0.9	4.078	A
2 - Wide Lane (S)	434	108	543	817	0.530	429	685	0.0	1.1	9.440	A
4 - Wide Lane (S)	244	61	543	1036	0.235	243	429	0.0	0.3	4.627	A
3 - A335 (NW)	928	232	246	1869	0.496	923	540	0.0	1.0	3.945	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	945	236	528	1616	0.585	943	872	0.9	1.4	5.387	A
2 - Wide Lane (S)	518	129	650	760	0.681	514	820	1.1	2.1	14.836	B
4 - Wide Lane (S)	291	73	650	974	0.299	291	514	0.3	0.4	5.371	A
3 - A335 (NW)	1108	277	294	1833	0.604	1105	647	1.0	1.6	5.131	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1157	289	644	1535	0.754	1151	1066	1.4	3.0	9.314	A
2 - Wide Lane (S)	634	159	794	683	0.928	611	1001	2.1	7.9	42.196	E
4 - Wide Lane (S)	357	89	794	891	0.401	356	611	0.4	0.7	6.852	A
3 - A335 (NW)	1356	339	360	1785	0.760	1350	790	1.6	3.2	8.492	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1157	289	647	1533	0.755	1157	1070	3.0	3.0	9.648	A
2 - Wide Lane (S)	634	159	798	681	0.932	627	1006	7.9	9.6	58.325	F
4 - Wide Lane (S)	357	89	798	888	0.402	357	627	0.7	0.7	6.908	A
3 - A335 (NW)	1356	339	361	1784	0.760	1356	794	3.2	3.2	8.740	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	945	236	532	1613	0.586	951	878	3.0	1.4	5.545	A
2 - Wide Lane (S)	518	129	656	757	0.684	547	827	9.6	2.4	19.787	C
4 - Wide Lane (S)	291	73	656	971	0.300	292	547	0.7	0.4	5.421	A
3 - A335 (NW)	1108	277	296	1832	0.605	1114	653	3.2	1.6	5.264	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	791	198	444	1674	0.473	793	733	1.4	0.9	4.142	A
2 - Wide Lane (S)	434	108	547	815	0.532	438	690	2.4	1.2	9.951	A
4 - Wide Lane (S)	244	61	547	1034	0.236	244	438	0.4	0.3	4.655	A
3 - A335 (NW)	928	232	247	1868	0.497	930	544	1.6	1.0	4.003	A

DS 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 4, 3	91.55	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	DS 2028	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	882	100.000
2 - Wide Lane (S)		ONE HOUR	✓	587	100.000
4 - Wide Lane (S)		ONE HOUR	✓	553	100.000
3 - A335 (NW)		ONE HOUR	✓	1623	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	302	0	580
	2 - Wide Lane (S)	0	0	587	0
	4 - Wide Lane (S)	553	0	0	0
	3 - A335 (NW)	765	855	0	3

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
	1 - Wide Lane (NE)	0	2	0	13
	2 - Wide Lane (S)	0	0	15	0
	4 - Wide Lane (S)	1	0	0	0
	3 - A335 (NW)	4	8	0	50

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	0.70	9.21	2.4	A	809	1214
2 - Wide Lane (S)	0.84	33.23	5.6	D	539	808
4 - Wide Lane (S)	0.62	9.81	1.6	A	507	761
3 - A335 (NW)	1.12	185.23	103.1	F	1489	2234

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	664	166	641	1537	0.432	661	985	0.0	0.8	4.459	A
2 - Wide Lane (S)	442	110	437	875	0.505	437	865	0.0	1.1	9.371	A
4 - Wide Lane (S)	416	104	437	1098	0.379	414	437	0.0	0.6	5.294	A
3 - A335 (NW)	1222	305	414	1745	0.700	1212	437	0.0	2.4	7.049	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	793	198	764	1453	0.546	791	1177	0.8	1.3	5.912	A
2 - Wide Lane (S)	528	132	523	828	0.637	525	1032	1.1	1.9	13.478	B
4 - Wide Lane (S)	497	124	523	1048	0.474	496	525	0.6	0.9	6.571	A
3 - A335 (NW)	1459	365	496	1685	0.866	1444	523	2.4	6.1	15.029	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	971	243	839	1401	0.693	967	1354	1.3	2.4	8.945	A
2 - Wide Lane (S)	646	162	639	766	0.843	633	1167	1.9	5.2	28.707	D
4 - Wide Lane (S)	609	152	639	981	0.621	606	633	0.9	1.6	9.626	A
3 - A335 (NW)	1787	447	606	1604	1.114	1586	639	6.1	56.3	80.738	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	971	243	846	1396	0.696	971	1363	2.4	2.4	9.215	A
2 - Wide Lane (S)	646	162	641	765	0.845	644	1175	5.2	5.6	33.226	D
4 - Wide Lane (S)	609	152	641	979	0.622	609	644	1.6	1.6	9.806	A
3 - A335 (NW)	1787	447	609	1602	1.116	1600	641	56.3	103.1	185.232	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	793	198	880	1372	0.578	797	1285	2.4	1.5	6.860	A
2 - Wide Lane (S)	528	132	527	826	0.639	542	1150	5.6	2.1	15.203	C
4 - Wide Lane (S)	497	124	527	1046	0.475	500	542	1.6	0.9	6.694	A
3 - A335 (NW)	1459	365	500	1682	0.868	1665	527	103.1	51.7	169.130	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	664	166	750	1462	0.454	666	1086	1.5	0.9	4.944	A
2 - Wide Lane (S)	442	110	441	872	0.507	446	975	2.1	1.2	9.779	A
4 - Wide Lane (S)	416	104	441	1096	0.380	418	446	0.9	0.6	5.369	A
3 - A335 (NW)	1222	305	418	1742	0.701	1418	441	51.7	2.6	21.170	C

DS 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 4, 3	108.20	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	DS 2028	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 (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1061	100.000
2 - Wide Lane (S)		ONE HOUR	✓	783	100.000
4 - Wide Lane (S)		ONE HOUR	✓	359	100.000
3 - A335 (NW)		ONE HOUR	✓	1373	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	341	0	716
	2 - Wide Lane (S)	0	0	783	0
	4 - Wide Lane (S)	359	0	0	0
	3 - A335 (NW)	644	724	0	5

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
	1 - Wide Lane (NE)	0	1	0	1
	2 - Wide Lane (S)	0	0	6	0
	4 - Wide Lane (S)	1	0	0	0
	3 - A335 (NW)	5	10	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	0.82	13.94	4.4	B	974	1460
2 - Wide Lane (S)	1.27	444.56	99.2	F	718	1078
4 - Wide Lane (S)	0.44	7.37	0.8	A	329	494
3 - A335 (NW)	0.86	15.59	6.3	C	1260	1890

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	799	200	546	1603	0.498	795	754	0.0	1.0	4.478	A
2 - Wide Lane (S)	589	147	543	818	0.721	579	798	0.0	2.6	15.410	C
4 - Wide Lane (S)	270	68	543	1036	0.261	269	579	0.0	0.4	4.728	A
3 - A335 (NW)	1034	258	272	1850	0.559	1028	540	0.0	1.3	4.686	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	954	238	653	1529	0.624	951	903	1.0	1.6	6.265	A
2 - Wide Lane (S)	704	176	650	760	0.926	681	955	2.6	8.2	40.130	E
4 - Wide Lane (S)	323	81	650	974	0.331	322	681	0.4	0.5	5.571	A
3 - A335 (NW)	1234	309	326	1810	0.682	1231	646	1.3	2.3	6.641	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1168	292	795	1431	0.816	1158	1101	1.6	4.2	12.862	B
2 - Wide Lane (S)	862	216	791	684	1.260	680	1162	8.2	53.8	179.623	F
4 - Wide Lane (S)	395	99	791	892	0.443	394	680	0.5	0.8	7.283	A
3 - A335 (NW)	1512	378	398	1757	0.861	1497	787	2.3	6.0	14.160	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1168	292	802	1426	0.819	1167	1108	4.2	4.4	13.942	B
2 - Wide Lane (S)	862	216	798	681	1.266	680	1172	53.8	99.2	403.476	F
4 - Wide Lane (S)	395	99	798	888	0.445	395	680	0.8	0.8	7.371	A
3 - A335 (NW)	1512	378	400	1756	0.861	1510	793	6.0	6.3	15.590	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	954	238	664	1522	0.627	964	914	4.4	1.7	6.642	A
2 - Wide Lane (S)	704	176	659	755	0.932	747	969	99.2	88.4	444.556	F
4 - Wide Lane (S)	323	81	659	969	0.333	324	747	0.8	0.5	5.647	A
3 - A335 (NW)	1234	309	328	1809	0.682	1250	655	6.3	2.4	7.119	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	799	200	551	1600	0.499	802	761	1.7	1.0	4.573	A
2 - Wide Lane (S)	589	147	548	815	0.723	805	805	88.4	34.4	277.930	F
4 - Wide Lane (S)	270	68	548	1034	0.261	271	805	0.5	0.4	4.769	A
3 - A335 (NW)	1034	258	274	1848	0.559	1038	545	2.4	1.4	4.800	A

FB 2036, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 4, 3	67.64	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	FB 2036	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	900	100.000
2 - Wide Lane (S)		ONE HOUR	✓	525	100.000
4 - Wide Lane (S)		ONE HOUR	✓	597	100.000
3 - A335 (NW)		ONE HOUR	✓	1534	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	289	0	611
	2 - Wide Lane (S)	0	0	525	0
	4 - Wide Lane (S)	597	0	0	0
	3 - A335 (NW)	806	728	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
	1 - Wide Lane (NE)	0	3	0	13
	2 - Wide Lane (S)	0	0	5	0
	4 - Wide Lane (S)	1	0	0	0
	3 - A335 (NW)	4	5	0	50

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	0.67	8.25	2.2	A	826	1239
2 - Wide Lane (S)	0.77	21.93	3.4	C	482	723
4 - Wide Lane (S)	0.68	11.94	2.1	B	548	822
3 - A335 (NW)	1.08	139.81	73.4	F	1408	2111

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	678	169	544	1604	0.422	674	1049	0.0	0.8	4.228	A
2 - Wide Lane (S)	395	99	458	863	0.458	392	761	0.0	0.9	7.957	A
4 - Wide Lane (S)	449	112	458	1086	0.414	447	392	0.0	0.7	5.662	A
3 - A335 (NW)	1155	289	447	1721	0.671	1147	458	0.0	2.1	6.457	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	809	202	649	1532	0.528	807	1254	0.8	1.2	5.435	A
2 - Wide Lane (S)	472	118	548	815	0.579	470	909	0.9	1.4	10.885	B
4 - Wide Lane (S)	537	134	548	1033	0.519	535	470	0.7	1.1	7.275	A
3 - A335 (NW)	1379	345	535	1656	0.833	1368	548	2.1	4.8	12.609	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	991	248	732	1475	0.672	987	1464	1.2	2.2	8.027	A
2 - Wide Lane (S)	578	145	670	749	0.771	571	1049	1.4	3.2	20.357	C
4 - Wide Lane (S)	657	164	670	963	0.683	653	571	1.1	2.1	11.600	B
3 - A335 (NW)	1689	422	653	1569	1.076	1542	670	4.8	41.5	64.504	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	991	248	741	1468	0.675	991	1477	2.2	2.2	8.251	A
2 - Wide Lane (S)	578	145	673	748	0.773	577	1059	3.2	3.4	21.934	C
4 - Wide Lane (S)	657	164	673	961	0.684	657	577	2.1	2.1	11.941	B
3 - A335 (NW)	1689	422	657	1566	1.078	1561	673	41.5	73.4	139.809	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	809	202	773	1446	0.559	812	1397	2.2	1.4	6.255	A
2 - Wide Lane (S)	472	118	552	813	0.580	480	1034	3.4	1.5	11.574	B
4 - Wide Lane (S)	537	134	552	1032	0.520	541	480	2.1	1.1	7.469	A
3 - A335 (NW)	1379	345	541	1652	0.835	1629	552	73.4	11.0	98.280	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	678	169	565	1590	0.426	680	1076	1.4	0.8	4.345	A
2 - Wide Lane (S)	395	99	462	861	0.459	398	783	1.5	0.9	8.193	A
4 - Wide Lane (S)	449	112	462	1084	0.415	451	398	1.1	0.7	5.759	A
3 - A335 (NW)	1155	289	451	1718	0.672	1190	462	11.0	2.2	7.584	A

FB 2036, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 4, 3	53.27	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	FB 2036	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 (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1106	100.000
2 - Wide Lane (S)		ONE HOUR	✓	674	100.000
4 - Wide Lane (S)		ONE HOUR	✓	380	100.000
3 - A335 (NW)		ONE HOUR	✓	1336	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	348	0	754
	2 - Wide Lane (S)	0	0	674	0
	4 - Wide Lane (S)	380	0	0	0
	3 - A335 (NW)	679	652	0	5

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
	1 - Wide Lane (NE)	0	1	0	1
	2 - Wide Lane (S)	0	0	3	0
	4 - Wide Lane (S)	1	0	0	0
	3 - A335 (NW)	5	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	0.82	13.68	4.5	B	1015	1522
2 - Wide Lane (S)	1.13	221.87	49.5	F	618	928
4 - Wide Lane (S)	0.48	8.15	0.9	A	349	523
3 - A335 (NW)	0.85	13.82	5.4	B	1226	1839

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	833	208	492	1640	0.508	829	796	0.0	1.0	4.458	A
2 - Wide Lane (S)	507	127	572	802	0.632	501	749	0.0	1.7	12.034	B
4 - Wide Lane (S)	286	72	572	1020	0.281	285	501	0.0	0.4	4.935	A
3 - A335 (NW)	1006	251	288	1838	0.547	1001	569	0.0	1.2	4.447	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	994	249	589	1573	0.632	992	953	1.0	1.7	6.222	A
2 - Wide Lane (S)	606	151	684	742	0.817	597	897	1.7	4.0	24.097	C
4 - Wide Lane (S)	342	85	684	954	0.358	341	597	0.4	0.6	5.920	A
3 - A335 (NW)	1201	300	345	1796	0.669	1198	680	1.2	2.1	6.223	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1218	304	717	1485	0.820	1207	1162	1.7	4.3	12.660	B
2 - Wide Lane (S)	742	186	833	662	1.121	647	1092	4.0	27.8	105.748	F
4 - Wide Lane (S)	418	105	833	868	0.482	417	647	0.6	0.9	8.036	A
3 - A335 (NW)	1471	368	421	1740	0.846	1458	829	2.1	5.2	12.765	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1218	304	723	1481	0.822	1217	1170	4.3	4.5	13.679	B
2 - Wide Lane (S)	742	186	840	659	1.127	656	1100	27.8	49.5	221.872	F
4 - Wide Lane (S)	418	105	840	864	0.484	418	656	0.9	0.9	8.154	A
3 - A335 (NW)	1471	368	423	1739	0.846	1470	835	5.2	5.4	13.815	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	994	249	597	1568	0.634	1005	964	4.5	1.8	6.582	A
2 - Wide Lane (S)	606	151	693	737	0.822	722	909	49.5	20.5	178.653	F
4 - Wide Lane (S)	342	85	693	949	0.360	343	722	0.9	0.6	6.013	A
3 - A335 (NW)	1201	300	347	1795	0.669	1214	690	5.4	2.1	6.594	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	833	208	496	1637	0.509	836	803	1.8	1.1	4.551	A
2 - Wide Lane (S)	507	127	576	800	0.634	582	755	20.5	1.9	22.990	C
4 - Wide Lane (S)	286	72	576	1017	0.281	287	582	0.6	0.4	4.983	A
3 - A335 (NW)	1006	251	290	1836	0.548	1009	573	2.1	1.3	4.545	A

DS 2036, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 4, 3	213.60	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	DS 2036	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	943	100.000
2 - Wide Lane (S)		ONE HOUR	✓	664	100.000
4 - Wide Lane (S)		ONE HOUR	✓	614	100.000
3 - A335 (NW)		ONE HOUR	✓	1762	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	332	0	611
	2 - Wide Lane (S)	0	0	664	0
	4 - Wide Lane (S)	614	0	0	0
	3 - A335 (NW)	806	956	0	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
	1 - Wide Lane (NE)	0	2	0	13
	2 - Wide Lane (S)	0	0	13	0
	4 - Wide Lane (S)	1	0	0	0
	3 - A335 (NW)	4	7	0	50

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	0.74	10.85	3.1	B	865	1298
2 - Wide Lane (S)	0.98	82.38	16.1	F	609	914
4 - Wide Lane (S)	0.70	12.71	2.3	B	563	845
3 - A335 (NW)	1.25	441.56	208.0	F	1617	2425

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	710	177	712	1488	0.477	706	1060	0.0	1.0	4.986	A
2 - Wide Lane (S)	500	125	457	864	0.579	494	961	0.0	1.5	10.835	B
4 - Wide Lane (S)	462	116	457	1086	0.426	459	494	0.0	0.7	5.774	A
3 - A335 (NW)	1327	332	459	1712	0.775	1313	457	0.0	3.5	9.229	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	848	212	836	1402	0.604	845	1256	1.0	1.6	7.001	A
2 - Wide Lane (S)	597	149	548	815	0.732	591	1134	1.5	2.9	17.740	C
4 - Wide Lane (S)	552	138	548	1034	0.534	550	591	0.7	1.1	7.495	A
3 - A335 (NW)	1584	396	550	1645	0.963	1542	548	3.5	14.1	29.063	D

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1038	260	842	1399	0.742	1033	1381	1.6	3.0	10.554	B
2 - Wide Lane (S)	731	183	669	750	0.975	694	1206	2.9	12.0	53.536	F
4 - Wide Lane (S)	676	169	669	963	0.702	671	694	1.1	2.3	12.275	B
3 - A335 (NW)	1940	485	671	1556	1.247	1552	669	14.1	111.1	153.374	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1038	260	842	1398	0.742	1038	1386	3.0	3.1	10.854	B
2 - Wide Lane (S)	731	183	673	748	0.977	715	1208	12.0	16.1	82.376	F
4 - Wide Lane (S)	676	169	673	961	0.703	676	715	2.3	2.3	12.714	B
3 - A335 (NW)	1940	485	676	1553	1.249	1552	673	111.1	208.0	369.626	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	848	212	885	1369	0.619	853	1303	3.1	1.8	7.673	A
2 - Wide Lane (S)	597	149	553	813	0.735	648	1186	16.1	3.4	30.623	D
4 - Wide Lane (S)	552	138	553	1031	0.535	557	648	2.3	1.2	7.737	A
3 - A335 (NW)	1584	396	557	1640	0.966	1632	553	208.0	196.0	441.564	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	710	177	922	1343	0.528	712	1241	1.8	1.2	6.231	A
2 - Wide Lane (S)	500	125	461	861	0.580	507	1173	3.4	1.6	11.701	B
4 - Wide Lane (S)	462	116	461	1084	0.426	464	507	1.2	0.8	5.883	A
3 - A335 (NW)	1327	332	464	1708	0.776	1699	461	196.0	102.9	317.914	F

DS 2036, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 4, 3	218.82	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	DS 2036	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 (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1115	100.000
2 - Wide Lane (S)		ONE HOUR	✓	881	100.000
4 - Wide Lane (S)		ONE HOUR	✓	414	100.000
3 - A335 (NW)		ONE HOUR	✓	1478	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	357	0	754
	2 - Wide Lane (S)	0	0	881	0
	4 - Wide Lane (S)	414	0	0	0
	3 - A335 (NW)	679	794	0	5

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
	1 - Wide Lane (NE)	0	1	0	1
	2 - Wide Lane (S)	0	0	5	0
	4 - Wide Lane (S)	1	0	0	0
	3 - A335 (NW)	5	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	0.89	22.99	7.4	C	1023	1535
2 - Wide Lane (S)	1.47	873.02	191.4	F	808	1213
4 - Wide Lane (S)	0.53	8.88	1.1	A	380	570
3 - A335 (NW)	0.95	35.39	15.0	E	1356	2034

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	839	210	598	1567	0.536	835	821	0.0	1.2	4.935	A
2 - Wide Lane (S)	663	166	571	803	0.827	646	861	0.0	4.3	22.184	C
4 - Wide Lane (S)	312	78	571	1020	0.306	310	646	0.0	0.4	5.108	A
3 - A335 (NW)	1113	278	313	1819	0.612	1106	568	0.0	1.7	5.357	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1002	251	715	1486	0.674	999	983	1.2	2.0	7.406	A
2 - Wide Lane (S)	792	198	683	742	1.067	719	1031	4.3	22.5	84.492	F
4 - Wide Lane (S)	372	93	683	955	0.390	371	719	0.4	0.6	6.222	A
3 - A335 (NW)	1329	332	375	1774	0.749	1323	680	1.7	3.1	8.445	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1228	307	859	1387	0.885	1210	1188	2.0	6.6	18.858	C
2 - Wide Lane (S)	970	242	828	665	1.459	664	1241	22.5	99.0	342.551	F
4 - Wide Lane (S)	456	114	828	871	0.523	454	664	0.6	1.1	8.681	A
3 - A335 (NW)	1627	407	458	1712	0.950	1589	823	3.1	12.6	25.732	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1228	307	874	1376	0.892	1224	1203	6.6	7.4	22.993	C
2 - Wide Lane (S)	970	242	838	659	1.471	659	1261	99.0	176.7	725.544	F
4 - Wide Lane (S)	456	114	838	865	0.527	456	659	1.1	1.1	8.878	A
3 - A335 (NW)	1627	407	460	1711	0.951	1618	833	12.6	15.0	35.395	E

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1002	251	744	1467	0.683	1023	1010	7.4	2.2	8.558	A
2 - Wide Lane (S)	792	198	700	733	1.080	733	1066	176.7	191.4	873.021	F
4 - Wide Lane (S)	372	93	700	945	0.394	374	733	1.1	0.7	6.384	A
3 - A335 (NW)	1329	332	378	1772	0.750	1375	696	15.0	3.3	10.806	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	839	210	605	1562	0.537	844	830	2.2	1.2	5.090	A
2 - Wide Lane (S)	663	166	577	799	0.830	795	871	191.4	158.5	792.959	F
4 - Wide Lane (S)	312	78	577	1017	0.307	313	795	0.7	0.5	5.170	A
3 - A335 (NW)	1113	278	316	1817	0.612	1119	574	3.3	1.7	5.571	A