

Appendix E - J04 Spitfire Roundabout with Lane Simulation Junction Modelling Results

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, PM
- »DS 2028, AM
- »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
	[Lane Simulation] - Base 2023							
1 - Wide Lane (N)	2.9	11.10		B	7.9	32.00		D
2 - Mitchell Way (E)	0.3	5.53		A	0.4	5.72		A
3 - George Curl Way (S)	0.2	5.75		A	0.5	7.91		A
4 - Wide Lane (W)	12.5	42.28		E	2.1	13.52		B
	[Lane Simulation] - FB 2025							
1 - Wide Lane (N)	3.4	11.95		B	11.1	40.17		E
2 - Mitchell Way (E)	0.5	5.74		A	0.5	6.00		A
3 - George Curl Way (S)	0.2	5.95		A	0.4	8.35		A
4 - Wide Lane (W)	15.0	56.24		F	2.9	15.79		C
	[Lane Simulation] - FB 2028							
1 - Wide Lane (N)	4.1	14.19		B	18.8	64.40		F
2 - Mitchell Way (E)	0.5	6.02		A	0.8	6.59		A
3 - George Curl Way (S)	0.1	6.15		A	0.6	8.88		A
4 - Wide Lane (W)	38.9	123.19		F	4.7	24.71		C
	[Lane Simulation] - DS 2028							
1 - Wide Lane (N)	34.6	89.94		F	21.0	64.15		F
2 - Mitchell Way (E)	1.6	9.36		A	2.7	12.58		B
3 - George Curl Way (S)	0.3	6.86		A	0.7	12.10		B
4 - Wide Lane (W)	110.3	426.15		F	11.6	53.98		F
	[Lane Simulation] - FB 2036							
1 - Wide Lane (N)	7.5	20.53		C	34.9	105.85		F
2 - Mitchell Way (E)	1.0	6.88		A	1.3	8.24		A
3 - George Curl Way (S)	0.2	6.83		A	0.7	10.74		B
4 - Wide Lane (W)	104.2	373.21		F	18.9	73.78		F
	[Lane Simulation] - DS 2036							
1 - Wide Lane (N)	96.4	304.58		F	35.9	96.21		F
2 - Mitchell Way (E)	1.9	10.52		B	5.9	22.04		C
3 - George Curl Way (S)	0.2	7.90		A	1.0	15.96		C
4 - Wide Lane (W)	214.4	786.51		F	47.1	186.11		F

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

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Arm and junction delays are averages for all movements, including movements with zero delay.

File summary

File Description

Title	Wide Ln, Mitchell Way Rbt
Location	50.947889, -1.365052
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

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Average animation capture interval (s)	Use quick response	Do flow sampling	Suppress automatic lane creation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	100000	100000	-1	3	1	60	✓			820820370	156	10.14

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	PM	ONE HOUR	16:45	18:15	15	✓
D8	DS 2028	AM	ONE HOUR	07:45	09:15	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	Use Lane Simulation	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	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	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	Wide Ln, Mitchell Way Rbt	Standard Roundabout		1, 2, 3, 4	24.65	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Wide Lane (N)	
2	Mitchell Way (E)	
3	George Curl Way (S)	
4	Wide Lane (W)	

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 (N)	3.27	7.00	12.4	29.4	51.4	27.7	
2 - Mitchell Way (E)	5.38	8.06	11.9	16.7	51.4	20.1	
3 - George Curl Way (S)	5.08	7.40	4.7	18.8	51.4	40.3	
4 - Wide Lane (W)	5.00	7.10	11.5	16.4	51.4	18.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Wide Lane (N)	0.591	1604
2 - Mitchell Way (E)	0.694	2154
3 - George Curl Way (S)	0.599	1741
4 - Wide Lane (W)	0.663	1976

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

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
1 - Wide Lane (N)	Evenly split	10.00
2 - Mitchell Way (E)	Evenly split	10.00
3 - George Curl Way (S)	Evenly split	10.00
4 - Wide Lane (W)	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
1 - Wide Lane (N)	Entry	1	1	2, 3		Infinity		0	99999	
			2	1, (3), 4		Infinity		0	99999	
	Exit	1	1			Infinity				
2 - Mitchell Way (E)	Entry	1	1	3, 4		Infinity		0	99999	
			2	1, 2, (4)		Infinity		0	99999	
	Exit	1	1			Infinity				
3 - George Curl Way (S)	Entry	1	1	1, 4		Infinity		0	99999	
			2	(1), 2, 3		Infinity		0	99999	
	Exit	1	1			Infinity				
4 - Wide Lane (W)	Entry	1	1	1, 2		Infinity		0	99999	
			2	(2), 3, 4		Infinity		0	99999	
	Exit	1	1			Infinity				

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
1 - Wide Lane (N)	Entry	1	1	0.295	802
			2	0.295	802
2 - Mitchell Way (E)	Entry	1	1	0.347	1077
			2	0.347	1077
3 - George Curl Way (S)	Entry	1	1	0.299	871
			2	0.299	871
4 - Wide Lane (W)	Entry	1	1	0.331	988
			2	0.331	988

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm			
			Wide Lane (N)	Mitchell Way (E)	George Curl Way (S)	Wide Lane (W)
1 - Wide Lane (N)	1	1		✓	✓	
		2	✓			✓
2 - Mitchell Way (E)	1	1			✓	✓
		2	✓	✓		
3 - George Curl Way (S)	1	1	✓			✓
		2		✓	✓	
4 - Wide Lane (W)	1	1	✓	✓		
		2			✓	✓

Summary of Entry Lane allowed secondary movements

Arm	Lane Level	Lane	Destination arm			
			Wide Lane (N)	Mitchell Way (E)	George Curl Way (S)	Wide Lane (W)
1 - Wide Lane (N)	1	1				
		2			✓	
2 - Mitchell Way (E)	1	1				
		2				✓
3 - George Curl Way (S)	1	1				
		2	✓			
4 - Wide Lane (W)	1	1				
		2		✓		

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	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 (N)		ONE HOUR	✓	749	100.000
2 - Mitchell Way (E)		ONE HOUR	✓	160	100.000
3 - George Curl Way (S)		ONE HOUR	✓	79	100.000
4 - Wide Lane (W)		ONE HOUR	✓	837	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (N)	2 - Mitchell Way (E)	3 - George Curl Way (S)	4 - Wide Lane (W)
	1 - Wide Lane (N)	4	149	207	389
	2 - Mitchell Way (E)	108	0	11	41
	3 - George Curl Way (S)	38	15	0	26
	4 - Wide Lane (W)	723	56	51	7

Vehicle Mix**Heavy Vehicle Percentages**

	To				
		1 - Wide Lane (N)	2 - Mitchell Way (E)	3 - George Curl Way (S)	4 - Wide Lane (W)
	1 - Wide Lane (N)	0	14	1	5
	2 - Mitchell Way (E)	9	0	0	21
	3 - George Curl Way (S)	0	7	0	0
	4 - Wide Lane (W)	3	10	0	17

Results**Results Summary for whole modelled period**

Arm	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (N)	11.10	2.9	7.8	B	691	1036
2 - Mitchell Way (E)	5.53	0.3	1.7	A	145	217
3 - George Curl Way (S)	5.75	0.2	1.0	A	72	109
4 - Wide Lane (W)	42.28	12.5	38.2	E	766	1149

Main Results for each time segment**07:45 - 08:00**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	570	143	98	569	563	653	0.0	1.4	7.745	A
2 - Mitchell Way (E)	118	29	497	117	120	170	0.0	0.2	4.855	A
3 - George Curl Way (S)	58	15	412	58	60	202	0.0	0.1	5.446	A
4 - Wide Lane (W)	631	158	120	631	626	350	0.0	1.8	9.751	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	676	169	112	678	678	795	1.4	1.4	8.765	A
2 - Mitchell Way (E)	148	37	594	147	144	196	0.2	0.1	4.933	A
3 - George Curl Way (S)	70	17	498	69	69	244	0.1	0.2	5.361	A
4 - Wide Lane (W)	756	189	149	758	744	418	1.8	3.4	14.555	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	830	208	140	828	812	951	1.4	2.9	11.046	B
2 - Mitchell Way (E)	172	43	722	172	169	246	0.1	0.3	5.427	A
3 - George Curl Way (S)	90	22	601	90	86	294	0.2	0.1	5.613	A
4 - Wide Lane (W)	921	230	181	910	895	510	3.4	9.1	30.158	D

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	823	206	137	822	827	956	2.9	2.8	11.101	B
2 - Mitchell Way (E)	172	43	720	170	173	239	0.3	0.3	5.530	A
3 - George Curl Way (S)	92	23	595	91	89	296	0.1	0.2	5.747	A
4 - Wide Lane (W)	929	232	179	913	907	507	9.1	12.5	42.284	E

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	684	171	112	680	679	777	2.8	1.9	9.277	A
2 - Mitchell Way (E)	142	35	597	142	146	194	0.3	0.3	5.061	A
3 - George Curl Way (S)	68	17	496	68	69	243	0.2	0.1	5.632	A
4 - Wide Lane (W)	740	185	147	742	786	417	12.5	2.9	21.525	C

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	561	140	92	561	566	646	1.9	1.1	7.897	A
2 - Mitchell Way (E)	118	29	494	118	121	159	0.3	0.2	4.628	A
3 - George Curl Way (S)	58	15	413	58	61	199	0.1	0.1	5.338	A
4 - Wide Lane (W)	616	154	122	616	629	349	2.9	1.6	10.456	B

Queue Variation Results for each time segment**07:45 - 08:00**

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	1.36	0.00	0.49	3.14	3.92
2 - Mitchell Way (E)	0.16	0.00	0.00	0.04	0.82
3 - George Curl Way (S)	0.06	0.00	0.00	0.00	1.00
4 - Wide Lane (W)	1.79	0.00	0.65	3.88	6.04

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	1.39	0.00	0.50	2.93	4.30
2 - Mitchell Way (E)	0.12	0.00	0.00	0.09	0.61
3 - George Curl Way (S)	0.16	0.00	0.00	0.32	0.78
4 - Wide Lane (W)	3.35	0.00	1.18	7.88	10.30

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	2.93	0.00	2.03	6.18	7.40
2 - Mitchell Way (E)	0.32	0.00	0.00	0.82	1.40
3 - George Curl Way (S)	0.10	0.00	0.00	1.00	1.00
4 - Wide Lane (W)	9.12	0.00	6.14	19.47	26.40

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	2.82	0.00	1.76	5.77	7.80
2 - Mitchell Way (E)	0.30	0.00	0.00	0.83	1.65
3 - George Curl Way (S)	0.19	0.00	0.00	0.46	0.77
4 - Wide Lane (W)	12.51	0.00	9.25	28.70	38.20

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	1.85	0.00	0.85	4.22	4.93
2 - Mitchell Way (E)	0.26	0.00	0.00	0.67	1.31
3 - George Curl Way (S)	0.09	0.00	0.00	0.00	0.43
4 - Wide Lane (W)	2.88	0.00	1.20	6.28	8.80

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	1.13	0.00	0.20	2.45	3.24
2 - Mitchell Way (E)	0.17	0.00	0.00	0.36	0.79
3 - George Curl Way (S)	0.10	0.00	0.00	0.00	1.00
4 - Wide Lane (W)	1.63	0.00	0.43	4.16	5.05

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	265	773	0.343	264	262	0.0	0.6	7.469	A
			2	1, (3), 4	305	773	0.394	306	301	0.0	0.7	7.983	A
	Exit	1	1		653			653	652	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	37	905	0.041	37	38	0.0	0.1	4.994	A
			2	1, 2, (4)	81	905	0.089	81	82	0.0	0.1	4.795	A
	Exit	1	1		170			170	167	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	46	747	0.062	46	48	0.0	0.0	5.414	A
			2	(1), 2, 3	12	747	0.016	12	12	0.0	0.0	5.575	A
	Exit	1	1		202			202	204	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	587	948	0.619	587	580	0.0	1.7	10.207	B
			2	(2), 3, 4	44	948	0.047	44	47	0.0	0.1	4.112	A
	Exit	1	1		350			350	345	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	314	769	0.409	315	312	0.6	0.6	8.274	A
			2	1, (3), 4	362	769	0.471	363	367	0.7	0.8	9.177	A
	Exit	1	1		795			795	780	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	47	871	0.054	46	44	0.1	0.1	4.793	A
			2	1, 2, (4)	101	871	0.116	101	100	0.1	0.1	4.992	A
	Exit	1	1		196			196	196	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	57	722	0.079	56	55	0.0	0.1	5.357	A
			2	(1), 2, 3	13	722	0.018	13	14	0.0	0.0	5.376	A
	Exit	1	1		244			244	241	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	703	939	0.749	705	689	1.7	3.3	15.392	C
			2	(2), 3, 4	53	939	0.056	53	55	0.1	0.1	4.097	A
	Exit	1	1		418			418	420	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	389	760	0.512	388	375	0.6	1.4	10.199	B
			2	1, (3), 4	441	760	0.580	440	436	0.8	1.6	11.763	B
	Exit	1	1		951			951	935	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	54	826	0.065	54	53	0.1	0.1	5.396	A
			2	1, 2, (4)	118	826	0.142	118	116	0.1	0.2	5.441	A
	Exit	1	1		246			246	237	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	73	691	0.105	73	69	0.1	0.1	5.599	A
			2	(1), 2, 3	17	691	0.025	18	17	0.0	0.0	5.675	A
	Exit	1	1		294			294	289	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	852	928	0.918	840	828	3.3	9.1	32.232	D
			2	(2), 3, 4	70	928	0.075	70	68	0.1	0.1	4.254	A
	Exit	1	1		510			510	501	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	385	762	0.505	385	385	1.4	1.3	10.668	B
			2	1, (3), 4	439	762	0.576	437	442	1.6	1.6	11.473	B
	Exit	1	1		956			956	949	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	53	827	0.064	52	54	0.1	0.1	5.343	A
			2	1, 2, (4)	119	827	0.144	118	119	0.2	0.2	5.611	A
	Exit	1	1		239			239	240	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	74	693	0.106	73	71	0.1	0.1	5.682	A
			2	(1), 2, 3	18	693	0.026	18	18	0.0	0.1	6.012	A
	Exit	1	1		296			296	297	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	862	929	0.928	845	839	9.1	12.5	45.317	E
			2	(2), 3, 4	67	929	0.072	69	68	0.1	0.0	4.436	A
	Exit	1	1		507			507	509	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	313	769	0.407	314	314	1.3	0.6	8.456	A
			2	1, (3), 4	371	769	0.483	366	365	1.6	1.2	9.973	A
	Exit	1	1		777			777	819	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	42	870	0.048	42	45	0.1	0.1	4.872	A
			2	1, 2, (4)	100	870	0.115	100	101	0.2	0.2	5.138	A
	Exit	1	1		194			194	201	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	55	722	0.076	55	54	0.1	0.1	5.680	A
			2	(1), 2, 3	13	722	0.018	13	14	0.1	0.0	5.437	A
	Exit	1	1		243			243	241	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	685	939	0.730	687	730	12.5	2.8	22.950	C
			2	(2), 3, 4	55	939	0.059	55	56	0.0	0.1	4.249	A
	Exit	1	1		417			417	419	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	256	775	0.331	257	261	0.6	0.4	7.461	A
			2	1, (3), 4	305	775	0.394	303	305	1.2	0.8	8.267	A
	Exit	1	1		646			646	656	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	36	906	0.040	36	38	0.1	0.0	4.722	A
			2	1, 2, (4)	82	906	0.090	81	83	0.2	0.1	4.587	A
	Exit	1	1		159			159	163	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	46	747	0.062	46	48	0.1	0.1	5.364	A
			2	(1), 2, 3	12	747	0.016	12	13	0.0	0.0	5.235	A
	Exit	1	1		199			199	205	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	572	948	0.604	571	581	2.8	1.6	10.997	B
			2	(2), 3, 4	45	948	0.047	45	47	0.1	0.0	3.982	A
	Exit	1	1		349			349	352	0.0	0.0	0.000	A

Lanes: Queue Variation Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	0.62	0.00	0.00	1.53	2.30
			2	0.74	0.00	0.00	2.13	2.84
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.06	0.00	0.00	0.00	0.00
			2	0.10	0.00	0.00	0.00	0.46
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.04	0.00	0.00	0.00	0.00
			2	0.03	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	1.72	0.00	0.56	3.85	6.04
			2	0.06	0.00	0.00	0.00	0.15
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:00 - 08:15

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	0.60	0.00	0.00	1.43	1.95
			2	0.79	0.00	0.00	1.77	2.44
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.06	0.00	0.00	0.00	0.03
			2	0.06	0.00	0.00	0.00	0.15
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.14	0.00	0.00	0.21	0.70
			2	0.02	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	3.26	0.00	1.08	7.85	10.07
			2	0.09	0.00	0.00	0.00	0.36
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:15 - 08:30

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	1.36	0.00	0.19	3.07	5.07
			2	1.57	0.00	0.40	3.93	5.44
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.10	0.00	0.00	0.00	0.53
			2	0.22	0.00	0.00	0.55	0.96
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.09	0.00	0.00	0.00	1.00
			2	0.01	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	9.06	0.00	6.14	19.47	26.10
			2	0.06	0.00	0.00	0.00	1.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:30 - 08:45

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	1.26	0.00	0.00	3.18	4.60
			2	1.56	0.00	0.77	3.08	4.64
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.09	0.00	0.00	0.00	0.07
			2	0.21	0.00	0.00	0.46	1.03
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.13	0.00	0.00	0.19	0.62
			2	0.06	0.00	0.00	0.00	0.03
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	12.47	0.00	9.25	28.70	38.20
			2	0.04	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:45 - 09:00

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	0.63	0.00	0.00	1.80	2.74
			2	1.22	0.00	0.13	2.80	4.07
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.09	0.00	0.00	0.00	0.24
			2	0.17	0.00	0.00	0.31	0.87
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.06	0.00	0.00	0.00	0.03
			2	0.03	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	2.83	0.00	1.19	5.91	8.80
			2	0.05	0.00	0.00	0.00	1.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

09:00 - 09:15

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	0.36	0.00	0.00	0.83	1.31
			2	0.77	0.00	0.00	1.88	2.62
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.03	0.00	0.00	0.00	0.00
			2	0.13	0.00	0.00	0.20	0.66
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.07	0.00	0.00	0.00	1.00
			2	0.03	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	1.59	0.00	0.37	4.05	5.05
			2	0.04	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

Base 2023, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	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	Wide Ln, Mitchell Way Rbt	Standard Roundabout		1, 2, 3, 4	20.42	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
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 (N)		ONE HOUR	✓	787	100.000
2 - Mitchell Way (E)		ONE HOUR	✓	215	100.000
3 - George Curl Way (S)		ONE HOUR	✓	173	100.000
4 - Wide Lane (W)		ONE HOUR	✓	554	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Wide Lane (N)	2 - Mitchell Way (E)	3 - George Curl Way (S)	4 - Wide Lane (W)
	1 - Wide Lane (N)	32	138	35	582
	2 - Mitchell Way (E)	155	2	4	54
	3 - George Curl Way (S)	111	23	0	39
	4 - Wide Lane (W)	465	73	16	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Wide Lane (N)	2 - Mitchell Way (E)	3 - George Curl Way (S)	4 - Wide Lane (W)
	1 - Wide Lane (N)	0	6	3	2
	2 - Mitchell Way (E)	7	0	0	10
	3 - George Curl Way (S)	2	0	0	0
	4 - Wide Lane (W)	3	11	7	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (N)	32.00	7.9	22.2	D	719	1079
2 - Mitchell Way (E)	5.72	0.4	1.4	A	194	292
3 - George Curl Way (S)	7.91	0.5	1.8	A	158	237
4 - Wide Lane (W)	13.52	2.1	7.5	B	506	759

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	596	149	89	596	592	573	0.0	1.9	10.671	B
2 - Mitchell Way (E)	159	40	504	158	162	181	0.0	0.2	4.783	A
3 - George Curl Way (S)	132	33	620	132	132	42	0.0	0.2	6.233	A
4 - Wide Lane (W)	416	104	244	418	414	508	0.0	0.7	7.171	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	704	176	97	704	701	674	1.9	2.7	13.736	B
2 - Mitchell Way (E)	191	48	594	190	190	208	0.2	0.4	5.085	A
3 - George Curl Way (S)	152	38	734	152	154	50	0.2	0.3	6.800	A
4 - Wide Lane (W)	484	121	288	483	491	598	0.7	1.3	8.758	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	862	216	128	855	847	829	2.7	7.3	26.430	D
2 - Mitchell Way (E)	230	57	719	230	236	264	0.4	0.4	5.718	A
3 - George Curl Way (S)	186	46	887	184	189	62	0.3	0.5	7.772	A
4 - Wide Lane (W)	609	152	348	609	605	722	1.3	2.1	12.865	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	866	216	126	861	856	839	7.3	7.9	32.000	D
2 - Mitchell Way (E)	234	58	730	233	230	257	0.4	0.3	5.638	A
3 - George Curl Way (S)	189	47	904	190	191	59	0.5	0.4	7.912	A
4 - Wide Lane (W)	608	152	351	613	612	742	2.1	2.1	13.523	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	704	176	100	709	732	685	7.9	2.9	18.442	C
2 - Mitchell Way (E)	190	47	604	189	191	206	0.3	0.3	5.520	A
3 - George Curl Way (S)	155	39	742	155	156	51	0.4	0.3	6.893	A
4 - Wide Lane (W)	501	125	282	503	505	615	2.1	1.2	9.498	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	584	146	84	580	593	581	2.9	2.0	11.084	B
2 - Mitchell Way (E)	162	41	492	162	164	172	0.3	0.2	4.773	A
3 - George Curl Way (S)	134	33	609	134	131	44	0.3	0.2	6.365	A
4 - Wide Lane (W)	420	105	245	421	421	498	1.2	0.8	7.421	A

Queue Variation Results for each time segment**16:45 - 17:00**

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	1.90	0.00	0.88	4.42	5.82
2 - Mitchell Way (E)	0.24	0.00	0.00	0.60	1.07
3 - George Curl Way (S)	0.21	0.00	0.00	0.52	0.80
4 - Wide Lane (W)	0.69	0.00	0.00	1.74	2.57

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	2.66	0.00	1.14	6.03	10.26
2 - Mitchell Way (E)	0.37	0.00	0.00	0.81	1.39
3 - George Curl Way (S)	0.31	0.00	0.00	0.70	0.96
4 - Wide Lane (W)	1.31	0.00	0.23	3.01	4.26

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	7.31	0.00	4.82	16.05	22.18
2 - Mitchell Way (E)	0.36	0.00	0.00	0.89	1.43
3 - George Curl Way (S)	0.54	0.00	0.00	1.15	1.83
4 - Wide Lane (W)	2.13	0.00	0.88	4.51	7.52

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	7.95	0.00	5.95	16.55	20.55
2 - Mitchell Way (E)	0.34	0.00	0.00	0.77	1.22
3 - George Curl Way (S)	0.42	0.00	0.00	0.88	1.51
4 - Wide Lane (W)	2.10	0.00	0.63	4.87	7.52

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	2.87	0.00	1.12	6.62	9.71
2 - Mitchell Way (E)	0.30	0.00	0.00	0.75	1.32
3 - George Curl Way (S)	0.33	0.00	0.00	0.73	0.94
4 - Wide Lane (W)	1.23	0.00	0.00	3.02	4.51

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	1.98	0.00	0.79	4.61	6.14
2 - Mitchell Way (E)	0.25	0.00	0.00	0.61	0.95
3 - George Curl Way (S)	0.19	0.00	0.00	0.44	0.82
4 - Wide Lane (W)	0.83	0.00	0.00	1.96	2.78

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	133	776	0.171	132	131	0.0	0.3	5.881	A
			2	1, (3), 4	463	776	0.597	464	462	0.0	1.6	11.970	B
	Exit	1	1		573			573	571	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	41	902	0.045	41	42	0.0	0.1	4.571	A
			2	1, 2, (4)	118	902	0.131	118	121	0.0	0.2	4.855	A
	Exit	1	1		181			181	180	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	110	685	0.160	110	110	0.0	0.2	6.436	A
			2	(1), 2, 3	22	685	0.033	23	22	0.0	0.0	5.221	A
	Exit	1	1		42			42	42	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	400	907	0.441	401	398	0.0	0.7	7.282	A
			2	(2), 3, 4	16	907	0.018	16	16	0.0	0.0	4.276	A
	Exit	1	1		508			508	507	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	156	773	0.202	156	156	0.3	0.2	6.078	A
			2	1, (3), 4	548	773	0.709	548	544	1.6	2.5	15.848	C
	Exit	1	1		674			674	678	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	50	871	0.057	49	49	0.1	0.1	4.687	A
			2	1, 2, (4)	141	871	0.162	141	141	0.2	0.3	5.220	A
	Exit	1	1		208			208	212	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	126	651	0.194	126	127	0.2	0.3	7.031	A
			2	(1), 2, 3	26	651	0.040	26	26	0.0	0.0	5.693	A
	Exit	1	1		50			50	49	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	465	892	0.521	463	472	0.7	1.3	8.926	A
			2	(2), 3, 4	19	892	0.021	19	19	0.0	0.0	4.359	A
	Exit	1	1		598			598	597	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	193	764	0.252	193	191	0.2	0.4	6.605	A
			2	1, (3), 4	670	764	0.876	661	656	2.5	6.9	31.851	D
	Exit	1	1		829			829	830	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	57	827	0.069	57	61	0.1	0.1	4.993	A
			2	1, 2, (4)	173	827	0.208	172	175	0.3	0.3	5.962	A
	Exit	1	1		264			264	262	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	151	605	0.249	149	155	0.3	0.4	8.080	A
			2	(1), 2, 3	35	605	0.057	35	34	0.0	0.1	6.390	A
	Exit	1	1		62			62	61	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	585	872	0.670	584	581	1.3	2.1	13.207	B
			2	(2), 3, 4	24	872	0.028	24	25	0.0	0.0	4.657	A
	Exit	1	1		722			722	724	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	186	765	0.243	186	187	0.4	0.4	6.612	A
			2	1, (3), 4	680	765	0.889	675	668	6.9	7.6	38.858	E
	Exit	1	1		839			839	837	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	60	824	0.073	60	58	0.1	0.1	5.239	A
			2	1, 2, (4)	173	824	0.210	174	172	0.3	0.3	5.771	A
	Exit	1	1		257			257	258	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	157	600	0.261	157	157	0.4	0.4	8.301	A
			2	(1), 2, 3	33	600	0.055	33	34	0.1	0.0	6.103	A
	Exit	1	1		59			59	60	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	584	871	0.670	589	587	2.1	2.1	13.887	B
			2	(2), 3, 4	24	871	0.028	24	24	0.0	0.0	4.387	A
	Exit	1	1		742			742	733	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	152	772	0.197	153	155	0.4	0.2	5.936	A
			2	1, (3), 4	553	772	0.716	556	577	7.6	2.7	21.805	C
	Exit	1	1		685			685	691	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	49	867	0.057	50	50	0.1	0.1	5.052	A
			2	1, 2, (4)	141	867	0.162	140	142	0.3	0.2	5.680	A
	Exit	1	1		206			206	211	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	132	649	0.203	132	130	0.4	0.3	7.112	A
			2	(1), 2, 3	24	649	0.037	24	26	0.0	0.0	5.802	A
	Exit	1	1		51			51	52	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	481	894	0.538	484	485	2.1	1.2	9.703	A
			2	(2), 3, 4	19	894	0.021	19	20	0.0	0.0	4.451	A
	Exit	1	1		615			615	631	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	129	777	0.166	129	129	0.2	0.3	5.648	A
			2	1, (3), 4	455	777	0.585	451	465	2.7	1.7	12.559	B
	Exit	1	1		581			581	578	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	43	906	0.048	43	43	0.1	0.1	4.526	A
			2	1, 2, (4)	119	906	0.131	119	121	0.2	0.2	4.858	A
	Exit	1	1		172			172	177	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	114	688	0.166	114	110	0.3	0.2	6.537	A
			2	(1), 2, 3	20	688	0.029	20	21	0.0	0.0	5.458	A
	Exit	1	1		44			44	43	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	404	907	0.446	405	405	1.2	0.8	7.542	A
			2	(2), 3, 4	16	907	0.017	16	16	0.0	0.0	4.279	A
	Exit	1	1		498			498	511	0.0	0.0	0.000	A

Lanes: Queue Variation Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	0.28	0.00	0.00	0.67	1.31
			2	1.62	0.00	0.46	4.02	5.65
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.05	0.00	0.00	0.00	1.00
			2	0.19	0.00	0.00	0.36	0.91
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.21	0.00	0.00	0.50	0.80
			2	0.01	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	0.69	0.00	0.00	1.74	2.57
			2	0.00	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

17:00 - 17:15

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	0.20	0.00	0.00	0.44	0.85
			2	2.47	0.00	0.87	5.82	9.64
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.09	0.00	0.00	0.00	0.43
			2	0.28	0.00	0.00	0.67	0.89
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.27	0.00	0.00	0.61	0.95
			2	0.04	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	1.29	0.00	0.22	2.94	4.26
			2	0.02	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

17:15 - 17:30

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	0.38	0.00	0.00	0.91	1.60
			2	6.93	0.00	4.50	15.78	21.78
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.08	0.00	0.00	0.00	0.40
			2	0.28	0.00	0.00	0.70	0.94
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.44	0.00	0.00	0.94	1.60
			2	0.10	0.00	0.00	0.00	0.46
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	2.10	0.00	0.86	4.51	7.52
			2	0.04	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

17:30 - 17:45

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	0.38	0.00	0.00	0.89	1.93
			2	7.57	0.00	5.29	15.85	19.33
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.07	0.00	0.00	0.00	0.26
			2	0.26	0.00	0.00	0.58	0.91
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.38	0.00	0.00	0.86	1.51
			2	0.04	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	2.08	0.00	0.63	4.82	7.52
			2	0.02	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

17:45 - 18:00

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	0.21	0.00	0.00	0.49	0.81
			2	2.66	0.00	0.94	6.53	9.51
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.08	0.00	0.00	0.00	0.32
			2	0.22	0.00	0.00	0.48	0.91
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.29	0.00	0.00	0.68	0.93
			2	0.04	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	1.22	0.00	0.00	3.02	4.51
			2	0.01	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

18:00 - 18:15

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	0.25	0.00	0.00	0.66	1.07
			2	1.72	0.00	0.52	4.26	5.51
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.06	0.00	0.00	0.00	1.00
			2	0.19	0.00	0.00	0.39	0.84
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.16	0.00	0.00	0.35	0.76
			2	0.02	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	0.81	0.00	0.00	1.96	2.78
			2	0.02	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

FB 2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	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	Wide Ln, Mitchell Way Rbt	Standard Roundabout		1, 2, 3, 4	30.91	D

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 (N)		ONE HOUR	✓	788	100.000
2 - Mitchell Way (E)		ONE HOUR	✓	199	100.000
3 - George Curl Way (S)		ONE HOUR	✓	81	100.000
4 - Wide Lane (W)		ONE HOUR	✓	869	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Wide Lane (N)	2 - Mitchell Way (E)	3 - George Curl Way (S)	4 - Wide Lane (W)
	1 - Wide Lane (N)	4	175	211	398
	2 - Mitchell Way (E)	133	0	11	55
	3 - George Curl Way (S)	39	15	0	27
	4 - Wide Lane (W)	739	71	52	7

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Wide Lane (N)	2 - Mitchell Way (E)	3 - George Curl Way (S)	4 - Wide Lane (W)
	1 - Wide Lane (N)	0	12	1	5
	2 - Mitchell Way (E)	7	0	0	15
	3 - George Curl Way (S)	0	7	0	0
	4 - Wide Lane (W)	3	8	0	17

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (N)	11.95	3.4	10.1	B	723	1084
2 - Mitchell Way (E)	5.74	0.5	2.0	A	183	275
3 - George Curl Way (S)	5.95	0.2	0.8	A	74	111
4 - Wide Lane (W)	56.24	15.0	35.6	F	795	1193

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	589	147	106	587	594	666	0.0	1.6	8.230	A
2 - Mitchell Way (E)	143	36	501	144	148	192	0.0	0.1	4.660	A
3 - George Curl Way (S)	61	15	447	61	64	197	0.0	0.1	5.219	A
4 - Wide Lane (W)	630	157	139	634	643	369	0.0	1.8	10.937	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	706	176	128	705	704	816	1.6	2.1	9.600	A
2 - Mitchell Way (E)	182	45	594	181	184	239	0.1	0.3	5.161	A
3 - George Curl Way (S)	69	17	533	69	73	243	0.1	0.1	5.495	A
4 - Wide Lane (W)	784	196	169	776	773	433	1.8	3.9	15.730	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	864	216	154	859	854	986	2.1	3.4	11.790	B
2 - Mitchell Way (E)	215	54	738	213	222	275	0.3	0.5	5.536	A
3 - George Curl Way (S)	86	21	653	88	88	299	0.1	0.1	5.643	A
4 - Wide Lane (W)	965	241	208	933	915	533	3.9	14.1	39.388	E

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	860	215	167	855	866	978	3.4	3.3	11.955	B
2 - Mitchell Way (E)	224	56	730	224	223	292	0.5	0.3	5.738	A
3 - George Curl Way (S)	90	23	654	90	90	299	0.1	0.1	5.947	A
4 - Wide Lane (W)	945	236	213	932	945	532	14.1	15.0	56.240	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	709	177	129	711	719	831	3.3	1.7	9.551	A
2 - Mitchell Way (E)	183	46	604	182	182	237	0.3	0.3	5.129	A
3 - George Curl Way (S)	74	18	543	73	73	243	0.1	0.2	5.804	A
4 - Wide Lane (W)	782	195	179	781	817	437	15.0	4.4	28.774	D

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	607	152	111	606	596	700	1.7	1.4	8.017	A
2 - Mitchell Way (E)	152	38	517	151	149	200	0.3	0.3	4.917	A
3 - George Curl Way (S)	63	16	456	63	65	212	0.2	0.1	5.159	A
4 - Wide Lane (W)	666	167	143	667	666	375	4.4	2.1	11.633	B

Queue Variation Results for each time segment**07:45 - 08:00**

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	1.65	0.00	0.63	3.68	4.53
2 - Mitchell Way (E)	0.14	0.00	0.00	0.00	0.87
3 - George Curl Way (S)	0.11	0.00	0.00	0.04	0.56
4 - Wide Lane (W)	1.84	0.00	0.83	4.55	5.73

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	2.05	0.00	0.88	4.57	5.64
2 - Mitchell Way (E)	0.27	0.00	0.00	0.71	1.20
3 - George Curl Way (S)	0.11	0.00	0.00	0.00	0.58
4 - Wide Lane (W)	3.90	0.00	2.23	9.47	12.20

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	3.41	0.00	2.08	7.48	10.10
2 - Mitchell Way (E)	0.48	0.00	0.00	1.06	1.89
3 - George Curl Way (S)	0.08	0.00	0.00	0.00	0.31
4 - Wide Lane (W)	14.15	0.00	10.00	31.40	34.60

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	3.33	0.00	2.38	6.85	7.87
2 - Mitchell Way (E)	0.34	0.00	0.00	0.85	1.64
3 - George Curl Way (S)	0.11	0.00	0.00	0.04	0.56
4 - Wide Lane (W)	14.99	0.27	13.00	28.27	35.60

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	1.68	0.00	0.65	3.80	4.84
2 - Mitchell Way (E)	0.26	0.00	0.00	0.69	2.00
3 - George Curl Way (S)	0.16	0.00	0.00	0.28	0.77
4 - Wide Lane (W)	4.43	0.00	2.36	10.47	13.60

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	1.36	0.00	0.35	3.34	3.92
2 - Mitchell Way (E)	0.28	0.00	0.00	0.69	1.05
3 - George Curl Way (S)	0.07	0.00	0.00	0.00	0.20
4 - Wide Lane (W)	2.09	0.00	1.00	5.10	6.73

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	273	770	0.354	273	280	0.0	0.7	7.870	A
			2	1, (3), 4	317	770	0.411	314	314	0.0	0.9	8.547	A
	Exit	1	1		666			666	678	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	46	903	0.051	46	49	0.0	0.0	4.538	A
			2	1, 2, (4)	97	903	0.107	97	98	0.0	0.1	4.718	A
	Exit	1	1		192			192	195	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	48	737	0.065	48	50	0.0	0.1	5.167	A
			2	(1), 2, 3	13	737	0.018	13	14	0.0	0.0	5.428	A
	Exit	1	1		197			197	203	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	580	942	0.616	585	596	0.0	1.7	11.498	B
			2	(2), 3, 4	50	942	0.053	49	47	0.0	0.1	3.972	A
	Exit	1	1		369			369	373	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	340	764	0.445	340	336	0.7	0.9	9.358	A
			2	1, (3), 4	366	764	0.479	365	368	0.9	1.1	9.818	A
	Exit	1	1		816			816	819	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	58	871	0.067	59	59	0.0	0.1	4.871	A
			2	1, 2, (4)	123	871	0.141	122	125	0.1	0.2	5.293	A
	Exit	1	1		239			239	234	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	55	711	0.078	56	58	0.1	0.1	5.531	A
			2	(1), 2, 3	13	711	0.019	13	15	0.0	0.0	5.347	A
	Exit	1	1		243			243	245	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	730	932	0.783	721	715	1.7	3.9	16.675	C
			2	(2), 3, 4	55	932	0.059	55	59	0.1	0.0	4.119	A
	Exit	1	1		433			433	437	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	409	756	0.540	404	409	0.9	1.7	11.294	B
			2	1, (3), 4	456	756	0.603	455	444	1.1	1.7	12.243	B
	Exit	1	1		986			986	971	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	65	821	0.079	65	69	0.1	0.1	5.504	A
			2	1, 2, (4)	150	821	0.183	149	153	0.2	0.4	5.549	A
	Exit	1	1		275			275	281	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	69	675	0.102	69	70	0.1	0.1	5.576	A
			2	(1), 2, 3	17	675	0.026	18	18	0.0	0.0	5.920	A
	Exit	1	1		299			299	300	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	892	919	0.971	861	842	3.9	14.0	42.302	E
			2	(2), 3, 4	73	919	0.079	72	72	0.0	0.1	4.432	A
	Exit	1	1		533			533	527	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	412	753	0.548	411	414	1.7	1.5	11.699	B
			2	1, (3), 4	448	753	0.596	444	452	1.7	1.8	12.187	B
	Exit	1	1		978			978	996	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	74	824	0.090	74	72	0.1	0.1	5.451	A
			2	1, 2, (4)	150	824	0.182	150	151	0.4	0.2	5.871	A
	Exit	1	1		292			292	289	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	72	675	0.106	71	71	0.1	0.1	6.029	A
			2	(1), 2, 3	19	675	0.028	19	19	0.0	0.0	5.610	A
	Exit	1	1		299			299	299	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	870	917	0.948	857	871	14.0	14.9	60.601	F
			2	(2), 3, 4	75	917	0.082	75	74	0.1	0.1	4.500	A
	Exit	1	1		532			532	539	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	338	764	0.443	336	343	1.5	0.9	9.043	A
			2	1, (3), 4	371	764	0.485	375	376	1.8	0.8	10.010	B
	Exit	1	1		831			831	862	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	54	867	0.062	53	55	0.1	0.1	4.997	A
			2	1, 2, (4)	129	867	0.149	129	127	0.2	0.2	5.184	A
	Exit	1	1		237			237	240	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	55	708	0.078	55	56	0.1	0.1	5.805	A
			2	(1), 2, 3	19	708	0.026	18	17	0.0	0.1	5.801	A
	Exit	1	1		243			243	248	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	724	929	0.779	723	759	14.9	4.4	30.795	D
			2	(2), 3, 4	58	929	0.063	58	58	0.1	0.1	4.105	A
	Exit	1	1		437			437	440	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	292	769	0.380	291	284	0.9	0.7	7.615	A
			2	1, (3), 4	315	769	0.409	315	313	0.8	0.7	8.381	A
	Exit	1	1		700			700	702	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	49	897	0.055	48	48	0.1	0.1	4.753	A
			2	1, 2, (4)	102	897	0.114	103	102	0.2	0.1	4.990	A
	Exit	1	1		200			200	197	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	50	734	0.068	50	51	0.1	0.0	5.105	A
			2	(1), 2, 3	13	734	0.018	13	14	0.1	0.0	5.369	A
	Exit	1	1		212			212	208	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	617	940	0.656	618	617	4.4	2.1	12.259	B
			2	(2), 3, 4	49	940	0.052	49	49	0.1	0.0	3.993	A
	Exit	1	1		375			375	371	0.0	0.0	0.000	A

Lanes: Queue Variation Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	0.72	0.00	0.00	1.83	2.64
			2	0.92	0.00	0.00	2.07	3.10
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.04	0.00	0.00	0.00	0.00
			2	0.09	0.00	0.00	0.00	0.40
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.09	0.00	0.00	0.00	0.40
			2	0.03	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	1.71	0.00	0.60	4.55	5.44
			2	0.13	0.00	0.00	0.18	0.63
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:00 - 08:15

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	0.95	0.00	0.00	2.34	4.07
			2	1.10	0.00	0.00	2.82	3.84
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.07	0.00	0.00	0.00	0.05
			2	0.20	0.00	0.00	0.49	0.94
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.08	0.00	0.00	0.00	0.31
			2	0.03	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	3.87	0.00	2.23	9.20	12.20
			2	0.03	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:15 - 08:30

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	1.69	0.00	0.45	4.35	5.80
			2	1.73	0.00	0.57	3.94	6.10
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.12	0.00	0.00	0.00	0.58
			2	0.36	0.00	0.00	0.91	1.60
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.08	0.00	0.00	0.00	0.31
			2	0.00	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	14.00	0.00	9.50	31.20	34.60
			2	0.15	0.00	0.00	0.22	0.75
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:30 - 08:45

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	1.50	0.00	0.48	3.49	4.40
			2	1.83	0.00	0.82	3.93	4.87
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.12	0.00	0.00	0.04	0.56
			2	0.22	0.00	0.00	0.49	1.24
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.09	0.00	0.00	0.00	1.00
			2	0.03	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	14.93	0.27	13.00	28.40	35.00
			2	0.06	0.00	0.00	0.00	0.04
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:45 - 09:00

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	0.92	0.00	0.00	2.54	3.40
			2	0.76	0.00	0.00	2.04	2.69
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.09	0.00	0.00	0.00	0.37
			2	0.17	0.00	0.00	0.39	0.80
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.09	0.00	0.00	0.00	0.40
			2	0.08	0.00	0.00	0.00	0.24
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	4.36	0.00	2.23	10.20	13.60
			2	0.07	0.00	0.00	0.00	0.05
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

09:00 - 09:15

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	0.67	0.00	0.00	1.95	2.58
			2	0.69	0.00	0.00	1.74	2.55
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.14	0.00	0.00	0.14	0.72
			2	0.15	0.00	0.00	0.04	0.62
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.04	0.00	0.00	0.00	0.00
			2	0.03	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	2.05	0.00	1.00	5.10	6.55
			2	0.04	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

FB 2025, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	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	Wide Ln, Mitchell Way Rbt	Standard Roundabout		1, 2, 3, 4	24.58	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
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 (N)		ONE HOUR	✓	819	100.000
2 - Mitchell Way (E)		ONE HOUR	✓	259	100.000
3 - George Curl Way (S)		ONE HOUR	✓	176	100.000
4 - Wide Lane (W)		ONE HOUR	✓	583	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Wide Lane (N)	2 - Mitchell Way (E)	3 - George Curl Way (S)	4 - Wide Lane (W)
	1 - Wide Lane (N)	33	155	36	595
	2 - Mitchell Way (E)	186	2	4	67
	3 - George Curl Way (S)	113	23	0	40
	4 - Wide Lane (W)	475	91	17	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Wide Lane (N)	2 - Mitchell Way (E)	3 - George Curl Way (S)	4 - Wide Lane (W)
	1 - Wide Lane (N)	0	6	3	2
	2 - Mitchell Way (E)	6	0	0	8
	3 - George Curl Way (S)	2	0	0	0
	4 - Wide Lane (W)	3	8	7	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (N)	40.17	11.1	29.7	E	753	1129
2 - Mitchell Way (E)	6.00	0.5	1.8	A	237	355
3 - George Curl Way (S)	8.35	0.4	1.6	A	162	242
4 - Wide Lane (W)	15.79	2.9	8.8	C	536	804

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	622	156	101	622	610	604	0.0	1.6	10.402	B
2 - Mitchell Way (E)	195	49	514	194	196	209	0.0	0.3	4.950	A
3 - George Curl Way (S)	135	34	665	135	134	43	0.0	0.2	6.277	A
4 - Wide Lane (W)	440	110	264	441	439	536	0.0	1.0	7.668	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	739	185	119	737	735	727	1.6	3.3	15.291	C
2 - Mitchell Way (E)	233	58	615	232	231	241	0.3	0.4	5.257	A
3 - George Curl Way (S)	160	40	794	159	156	53	0.2	0.4	7.035	A
4 - Wide Lane (W)	524	131	322	524	524	632	1.0	1.4	9.911	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	897	224	148	890	876	904	3.3	8.3	28.931	D
2 - Mitchell Way (E)	288	72	738	287	285	300	0.4	0.5	5.824	A
3 - George Curl Way (S)	194	48	961	194	194	64	0.4	0.4	7.813	A
4 - Wide Lane (W)	655	164	398	655	638	757	1.4	2.9	14.789	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	910	227	144	902	893	888	8.3	11.1	40.167	E
2 - Mitchell Way (E)	277	69	744	277	279	302	0.5	0.5	5.995	A
3 - George Curl Way (S)	191	48	961	192	196	61	0.4	0.4	8.349	A
4 - Wide Lane (W)	637	159	389	644	644	764	2.9	2.7	15.789	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	731	183	117	736	768	731	11.1	3.6	23.316	C
2 - Mitchell Way (E)	230	58	610	229	232	242	0.5	0.4	5.423	A
3 - George Curl Way (S)	158	39	789	158	162	51	0.4	0.3	7.175	A
4 - Wide Lane (W)	529	132	321	527	531	626	2.7	1.5	10.449	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	618	154	102	619	622	598	3.6	1.8	11.800	B
2 - Mitchell Way (E)	196	49	519	198	195	202	0.4	0.2	4.980	A
3 - George Curl Way (S)	132	33	672	132	133	44	0.3	0.3	6.432	A
4 - Wide Lane (W)	432	108	268	433	439	537	1.5	1.1	7.850	A

Queue Variation Results for each time segment**16:45 - 17:00**

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	1.64	0.00	0.55	3.78	4.93
2 - Mitchell Way (E)	0.29	0.00	0.00	0.78	1.42
3 - George Curl Way (S)	0.24	0.00	0.00	0.61	0.96
4 - Wide Lane (W)	1.01	0.00	0.06	2.66	3.60

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	3.29	0.00	1.80	6.66	11.65
2 - Mitchell Way (E)	0.36	0.00	0.00	0.98	1.54
3 - George Curl Way (S)	0.37	0.00	0.00	0.90	1.48
4 - Wide Lane (W)	1.39	0.00	0.38	2.84	4.88

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	8.30	0.00	5.22	19.12	23.30
2 - Mitchell Way (E)	0.51	0.00	0.00	1.17	1.72
3 - George Curl Way (S)	0.40	0.00	0.00	0.94	1.59
4 - Wide Lane (W)	2.89	0.00	1.49	6.86	8.83

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	11.13	0.26	8.04	23.15	29.65
2 - Mitchell Way (E)	0.52	0.00	0.00	1.24	1.81
3 - George Curl Way (S)	0.43	0.00	0.00	0.90	1.39
4 - Wide Lane (W)	2.70	0.00	1.22	6.26	8.78

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	3.56	0.00	1.37	8.37	10.65
2 - Mitchell Way (E)	0.37	0.00	0.00	0.90	1.51
3 - George Curl Way (S)	0.30	0.00	0.00	0.71	0.93
4 - Wide Lane (W)	1.47	0.00	0.32	3.76	4.65

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	1.81	0.00	0.63	4.26	5.94
2 - Mitchell Way (E)	0.23	0.00	0.00	0.55	0.92
3 - George Curl Way (S)	0.26	0.00	0.00	0.65	0.96
4 - Wide Lane (W)	1.08	0.00	0.19	2.66	3.52

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	148	772	0.192	147	142	0.0	0.3	6.100	A
			2	1, (3), 4	474	772	0.615	475	468	0.0	1.4	11.663	B
	Exit	1	1		604			604	609	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	54	899	0.060	54	53	0.0	0.1	4.680	A
			2	1, 2, (4)	141	899	0.157	140	143	0.0	0.2	5.047	A
	Exit	1	1		209			209	204	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	112	672	0.166	112	111	0.0	0.2	6.387	A
			2	(1), 2, 3	23	672	0.034	23	23	0.0	0.0	5.741	A
	Exit	1	1		43			43	43	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	423	901	0.470	424	422	0.0	1.0	7.799	A
			2	(2), 3, 4	17	901	0.019	17	17	0.0	0.0	4.398	A
	Exit	1	1		536			536	524	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	170	767	0.222	171	172	0.3	0.3	6.343	A
			2	1, (3), 4	568	767	0.741	566	563	1.4	3.0	17.912	C
	Exit	1	1		727			727	726	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	60	864	0.070	60	60	0.1	0.1	4.667	A
			2	1, 2, (4)	173	864	0.200	173	171	0.2	0.3	5.462	A
	Exit	1	1		241			241	242	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	134	633	0.212	133	130	0.2	0.3	7.233	A
			2	(1), 2, 3	26	633	0.041	26	26	0.0	0.1	6.056	A
	Exit	1	1		53			53	51	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	502	881	0.570	502	502	1.0	1.4	10.139	B
			2	(2), 3, 4	22	881	0.025	22	22	0.0	0.0	4.461	A
	Exit	1	1		632			632	627	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	210	758	0.278	210	208	0.3	0.4	7.013	A
			2	1, (3), 4	686	758	0.905	680	668	3.0	7.9	35.339	E
	Exit	1	1		904			904	883	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	73	821	0.089	73	75	0.1	0.1	5.076	A
			2	1, 2, (4)	215	821	0.261	214	211	0.3	0.4	6.083	A
	Exit	1	1		300			300	297	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	157	583	0.269	157	160	0.3	0.3	8.149	A
			2	(1), 2, 3	37	583	0.063	37	34	0.1	0.1	6.260	A
	Exit	1	1		64			64	62	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	629	856	0.735	629	610	1.4	2.9	15.219	C
			2	(2), 3, 4	26	856	0.030	26	28	0.0	0.0	4.849	A
	Exit	1	1		757			757	750	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	214	759	0.282	214	210	0.4	0.5	7.055	A
			2	1, (3), 4	695	759	0.916	688	683	7.9	10.6	49.835	E
	Exit	1	1		888			888	888	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	73	819	0.090	73	74	0.1	0.1	5.216	A
			2	1, 2, (4)	204	819	0.249	204	206	0.4	0.4	6.271	A
	Exit	1	1		302			302	299	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	157	583	0.269	158	162	0.3	0.3	8.717	A
			2	(1), 2, 3	35	583	0.059	34	34	0.1	0.1	6.609	A
	Exit	1	1		61			61	62	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	611	859	0.711	617	618	2.9	2.7	16.253	C
			2	(2), 3, 4	26	859	0.031	27	27	0.0	0.0	4.706	A
	Exit	1	1		764			764	765	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	172	767	0.224	172	172	0.5	0.3	6.232	A
			2	1, (3), 4	560	767	0.729	564	596	10.6	3.3	28.304	D
	Exit	1	1		731			731	736	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	60	865	0.069	59	61	0.1	0.1	4.781	A
			2	1, 2, (4)	171	865	0.197	170	171	0.4	0.3	5.650	A
	Exit	1	1		242			242	245	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	130	635	0.205	130	135	0.3	0.3	7.413	A
			2	(1), 2, 3	27	635	0.043	28	28	0.1	0.0	6.009	A
	Exit	1	1		51			51	51	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	510	882	0.578	507	511	2.7	1.4	10.676	B
			2	(2), 3, 4	20	882	0.022	19	21	0.0	0.0	4.775	A
	Exit	1	1		626			626	662	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	141	772	0.182	140	141	0.3	0.3	6.008	A
			2	1, (3), 4	477	772	0.618	479	480	3.3	1.5	13.468	B
	Exit	1	1		598			598	604	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	52	897	0.058	53	53	0.1	0.1	4.560	A
			2	1, 2, (4)	144	897	0.161	145	142	0.3	0.2	5.132	A
	Exit	1	1		202			202	203	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	108	669	0.161	108	110	0.3	0.2	6.638	A
			2	(1), 2, 3	24	669	0.036	24	23	0.0	0.0	5.450	A
	Exit	1	1		44			44	44	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	413	899	0.459	413	420	1.4	1.0	7.997	A
			2	(2), 3, 4	20	899	0.022	20	19	0.0	0.0	4.463	A
	Exit	1	1		537			537	537	0.0	0.0	0.000	A

Lanes: Queue Variation Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	0.28	0.00	0.00	0.69	0.96
			2	1.37	0.00	0.21	3.29	4.58
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.06	0.00	0.00	0.00	0.00
			2	0.24	0.00	0.00	0.60	1.07
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.21	0.00	0.00	0.51	0.91
			2	0.03	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	1.00	0.00	0.03	2.61	3.57
			2	0.01	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

17:00 - 17:15

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	0.29	0.00	0.00	0.72	1.07
			2	3.00	0.00	1.46	6.55	10.30
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.08	0.00	0.00	0.00	0.36
			2	0.28	0.00	0.00	0.81	1.38
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.32	0.00	0.00	0.82	1.39
			2	0.05	0.00	0.00	0.00	-0.04
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	1.36	0.00	0.34	2.78	4.88
			2	0.03	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

17:15 - 17:30

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	0.44	0.00	0.00	0.94	1.55
			2	7.86	0.00	4.77	18.65	23.65
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.12	0.00	0.00	1.00	1.00
			2	0.39	0.00	0.00	0.93	1.55
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.33	0.00	0.00	0.82	1.37
			2	0.07	0.00	0.00	0.00	0.17
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	2.86	0.00	1.47	6.86	8.83
			2	0.02	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

17:30 - 17:45

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	0.50	0.00	0.00	1.13	2.24
			2	10.63	0.00	7.59	22.15	29.65
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.14	0.00	0.00	0.08	0.73
			2	0.38	0.00	0.00	0.91	1.60
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.35	0.00	0.00	0.79	1.08
			2	0.08	0.00	0.00	0.00	1.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	2.66	0.00	1.14	6.26	8.78
			2	0.04	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

17:45 - 18:00

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	0.30	0.00	0.00	0.76	1.46
			2	3.26	0.00	1.02	7.86	10.83
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.10	0.00	0.00	0.00	0.51
			2	0.27	0.00	0.00	0.68	1.08
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.27	0.00	0.00	0.65	0.90
			2	0.03	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	1.43	0.00	0.22	3.66	4.65
			2	0.04	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

18:00 - 18:15

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	0.29	0.00	0.00	0.77	1.42
			2	1.52	0.00	0.34	3.75	4.65
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.06	0.00	0.00	0.00	0.07
			2	0.16	0.00	0.00	0.27	0.78
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.22	0.00	0.00	0.51	0.94
			2	0.04	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	1.04	0.00	0.12	2.61	3.46
			2	0.03	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

FB 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	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	Wide Ln, Mitchell Way Rbt	Standard Roundabout		1, 2, 3, 4	59.60	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
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 (N)		ONE HOUR	✓	862	100.000
2 - Mitchell Way (E)		ONE HOUR	✓	277	100.000
3 - George Curl Way (S)		ONE HOUR	✓	83	100.000
4 - Wide Lane (W)		ONE HOUR	✓	925	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		1 - Wide Lane (N)	2 - Mitchell Way (E)	3 - George Curl Way (S)	4 - Wide Lane (W)
	1 - Wide Lane (N)	4	227	215	416
	2 - Mitchell Way (E)	183	0	11	83
	3 - George Curl Way (S)	40	15	0	28
	4 - Wide Lane (W)	762	101	54	8

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Wide Lane (N)	2 - Mitchell Way (E)	3 - George Curl Way (S)	4 - Wide Lane (W)
	1 - Wide Lane (N)	0	9	1	5
	2 - Mitchell Way (E)	5	0	0	9
	3 - George Curl Way (S)	0	7	0	0
	4 - Wide Lane (W)	3	5	0	16

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (N)	14.19	4.1	11.6	B	794	1192
2 - Mitchell Way (E)	6.02	0.5	2.0	A	254	380
3 - George Curl Way (S)	6.15	0.1	0.7	A	78	116
4 - Wide Lane (W)	123.19	38.9	85.0	F	846	1269

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	657	164	132	658	649	749	0.0	1.6	8.608	A
2 - Mitchell Way (E)	209	52	532	209	207	258	0.0	0.3	4.972	A
3 - George Curl Way (S)	64	16	529	64	64	213	0.0	0.1	5.466	A
4 - Wide Lane (W)	696	174	185	695	681	407	0.0	2.5	11.669	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	785	196	161	781	770	888	1.6	2.3	10.203	B
2 - Mitchell Way (E)	251	63	630	253	247	312	0.3	0.4	5.238	A
3 - George Curl Way (S)	75	19	630	75	73	253	0.1	0.1	5.747	A
4 - Wide Lane (W)	835	209	219	830	821	486	2.5	6.1	22.527	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	950	238	193	947	942	1031	2.3	4.1	14.187	B
2 - Mitchell Way (E)	308	77	758	308	306	381	0.4	0.5	5.938	A
3 - George Curl Way (S)	95	24	764	95	90	302	0.1	0.1	6.074	A
4 - Wide Lane (W)	1009	252	271	953	942	589	6.1	24.7	66.237	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	938	234	186	942	952	1040	4.1	3.5	14.159	B
2 - Mitchell Way (E)	300	75	756	300	304	372	0.5	0.5	6.021	A
3 - George Curl Way (S)	90	23	752	90	92	304	0.1	0.1	6.145	A
4 - Wide Lane (W)	1010	252	264	961	958	578	24.7	38.9	123.193	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	787	197	169	786	779	951	3.5	2.5	10.776	B
2 - Mitchell Way (E)	245	61	637	244	247	318	0.5	0.4	5.451	A
3 - George Curl Way (S)	75	19	627	76	74	255	0.1	0.1	5.973	A
4 - Wide Lane (W)	831	208	217	904	926	486	38.9	15.7	97.621	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	650	163	135	652	659	762	2.5	1.5	8.914	A
2 - Mitchell Way (E)	209	52	532	208	210	255	0.4	0.4	5.047	A
3 - George Curl Way (S)	66	16	528	66	63	212	0.1	0.1	5.374	A
4 - Wide Lane (W)	696	174	184	713	754	410	15.7	2.9	27.244	D

Queue Variation Results for each time segment**07:45 - 08:00**

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	1.57	0.00	0.65	3.25	4.60
2 - Mitchell Way (E)	0.30	0.00	0.00	0.80	1.33
3 - George Curl Way (S)	0.09	0.00	0.00	0.00	0.40
4 - Wide Lane (W)	2.50	0.00	1.03	5.87	7.75

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	2.33	0.00	1.09	4.83	7.00
2 - Mitchell Way (E)	0.39	0.00	0.00	0.98	1.61
3 - George Curl Way (S)	0.13	0.00	0.00	0.19	0.65
4 - Wide Lane (W)	6.08	0.00	3.69	15.00	17.25

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	4.11	0.00	2.64	8.60	11.57
2 - Mitchell Way (E)	0.53	0.00	0.00	1.35	1.95
3 - George Curl Way (S)	0.15	0.00	0.00	0.18	0.73
4 - Wide Lane (W)	24.67	1.43	21.20	47.14	53.33

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	3.46	0.00	1.87	7.63	9.38
2 - Mitchell Way (E)	0.53	0.00	0.00	1.27	1.82
3 - George Curl Way (S)	0.15	0.00	0.00	0.28	0.66
4 - Wide Lane (W)	38.90	5.33	34.50	71.00	85.00

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	2.52	0.00	1.14	5.67	7.50
2 - Mitchell Way (E)	0.38	0.00	0.00	0.86	1.42
3 - George Curl Way (S)	0.10	0.00	0.00	0.00	0.50
4 - Wide Lane (W)	15.68	0.00	7.89	43.00	51.00

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	1.54	0.00	0.73	3.07	3.87
2 - Mitchell Way (E)	0.37	0.00	0.00	0.92	1.60
3 - George Curl Way (S)	0.12	0.00	0.00	0.12	0.58
4 - Wide Lane (W)	2.90	0.00	0.92	6.75	9.00

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	330	763	0.432	331	327	0.0	0.8	8.636	A
			2	1, (3), 4	328	763	0.429	327	322	0.0	0.8	8.580	A
	Exit	1	1		749			749	729	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	67	892	0.075	67	67	0.0	0.1	4.605	A
			2	1, 2, (4)	142	892	0.159	142	140	0.0	0.2	5.145	A
	Exit	1	1		258			258	257	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	51	712	0.071	51	52	0.0	0.1	5.517	A
			2	(1), 2, 3	13	712	0.018	13	13	0.0	0.0	5.247	A
	Exit	1	1		213			213	212	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	642	927	0.693	641	627	0.0	2.4	12.310	B
			2	(2), 3, 4	54	927	0.059	54	54	0.0	0.1	4.176	A
	Exit	1	1		407			407	403	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	391	754	0.518	392	385	0.8	1.0	10.073	B
			2	1, (3), 4	393	754	0.521	389	386	0.8	1.3	10.333	B
	Exit	1	1		888			888	874	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	84	858	0.098	85	83	0.1	0.1	5.014	A
			2	1, 2, (4)	167	858	0.195	168	164	0.2	0.3	5.348	A
	Exit	1	1		312			312	309	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	60	682	0.088	60	59	0.1	0.1	5.846	A
			2	(1), 2, 3	15	682	0.022	15	15	0.0	0.0	5.326	A
	Exit	1	1		253			253	248	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	769	915	0.840	764	757	2.4	6.0	24.063	C
			2	(2), 3, 4	66	915	0.072	66	64	0.1	0.1	4.270	A
	Exit	1	1		486			486	482	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	479	745	0.643	476	472	1.0	2.1	15.294	C
			2	1, (3), 4	471	745	0.632	470	470	1.3	2.0	13.077	B
	Exit	1	1		1031			1031	1019	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	101	814	0.124	100	100	0.1	0.2	5.490	A
			2	1, 2, (4)	208	814	0.255	209	205	0.3	0.3	6.152	A
	Exit	1	1		381			381	370	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	74	642	0.116	74	71	0.1	0.1	6.075	A
			2	(1), 2, 3	21	642	0.032	21	19	0.0	0.0	6.068	A
	Exit	1	1		302			302	306	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	932	898	1.038	875	863	6.0	24.6	71.426	F
			2	(2), 3, 4	77	898	0.086	77	78	0.1	0.1	4.323	A
	Exit	1	1		589			589	585	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	472	747	0.633	474	478	2.1	1.8	14.394	B
			2	1, (3), 4	465	747	0.623	467	474	2.0	1.6	13.921	B
	Exit	1	1		1040			1040	1037	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	96	815	0.118	97	99	0.2	0.2	5.465	A
			2	1, 2, (4)	204	815	0.250	204	205	0.3	0.4	6.282	A
	Exit	1	1		372			372	370	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	71	646	0.111	72	74	0.1	0.1	6.142	A
			2	(1), 2, 3	19	646	0.029	19	18	0.0	0.0	6.158	A
	Exit	1	1		304			304	310	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	934	900	1.038	885	881	24.6	38.8	133.119	F
			2	(2), 3, 4	75	900	0.084	76	77	0.1	0.1	4.543	A
	Exit	1	1		578			578	589	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	391	752	0.519	391	391	1.8	1.2	10.633	B
			2	1, (3), 4	397	752	0.527	395	388	1.6	1.3	10.921	B
	Exit	1	1		951			951	973	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	78	856	0.091	78	80	0.2	0.1	4.925	A
			2	1, 2, (4)	167	856	0.195	167	167	0.4	0.3	5.697	A
	Exit	1	1		318			318	318	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	60	683	0.088	61	59	0.1	0.1	5.992	A
			2	(1), 2, 3	15	683	0.022	15	15	0.0	0.0	5.897	A
	Exit	1	1		255			255	255	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	765	916	0.835	837	861	38.8	15.6	105.652	F
			2	(2), 3, 4	66	916	0.072	66	65	0.1	0.1	4.234	A
	Exit	1	1		486			486	480	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (N)	Entry	1	1	2, 3	321	762	0.421	321	326	1.2	0.8	8.915	A
			2	1, (3), 4	329	762	0.432	332	333	1.3	0.7	8.912	A
	Exit	1	1		762			762	797	0.0	0.0	0.000	A
2 - Mitchell Way (E)	Entry	1	1	3, 4	68	892	0.076	68	69	0.1	0.1	4.860	A
			2	1, 2, (4)	141	892	0.158	140	141	0.3	0.3	5.137	A
	Exit	1	1		255			255	263	0.0	0.0	0.000	A
3 - George Curl Way (S)	Entry	1	1	1, 4	52	713	0.072	51	51	0.1	0.1	5.307	A
			2	(1), 2, 3	14	713	0.020	14	13	0.0	0.0	5.653	A
	Exit	1	1		212			212	215	0.0	0.0	0.000	A
4 - Wide Lane (W)	Entry	1	1	1, 2	642	927	0.693	659	699	15.6	2.8	29.274	D
			2	(2), 3, 4	54	927	0.058	54	56	0.1	0.1	4.069	A
	Exit	1	1		410			410	412	0.0	0.0	0.000	A

Lanes: Queue Variation Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	0.77	0.00	0.00	1.96	2.79
			2	0.80	0.00	0.00	1.96	2.73
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.08	0.00	0.00	0.00	0.33
			2	0.21	0.00	0.00	0.53	0.91
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.07	0.00	0.00	0.00	0.18
			2	0.02	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	2.44	0.00	0.98	5.79	7.67
			2	0.06	0.00	0.00	0.00	0.08
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:00 - 08:15

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	1.01	0.00	0.00	2.58	3.54
			2	1.32	0.00	0.29	3.13	5.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.08	0.00	0.00	0.00	0.33
			2	0.31	0.00	0.00	0.82	1.43
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.11	0.00	0.00	0.04	0.54
			2	0.03	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	5.97	0.00	3.62	15.00	17.00
			2	0.11	0.00	0.00	0.00	0.55
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:15 - 08:30

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	2.14	0.00	0.60	5.56	8.25
			2	1.96	0.00	0.79	4.44	6.60
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.22	0.00	0.00	0.56	1.09
			2	0.31	0.00	0.00	0.79	1.50
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.12	0.00	0.00	0.00	0.60
			2	0.03	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	24.60	1.43	21.20	47.43	53.00
			2	0.07	0.00	0.00	0.00	0.21
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:30 - 08:45

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	1.83	0.00	0.48	4.58	6.00
			2	1.63	0.00	0.44	4.08	5.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.16	0.00	0.00	0.35	0.74
			2	0.36	0.00	0.00	0.84	1.38
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.12	0.00	0.00	1.00	1.00
			2	0.03	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	38.82	5.33	34.50	70.50	85.00
			2	0.08	0.00	0.00	0.00	0.33
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:45 - 09:00

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	1.22	0.00	0.20	2.90	4.00
			2	1.30	0.00	0.06	3.09	4.67
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.08	0.00	0.00	0.00	0.00
			2	0.30	0.00	0.00	0.73	1.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.10	0.00	0.00	0.00	0.48
			2	0.00	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	15.61	0.00	7.78	43.00	51.00
			2	0.07	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

09:00 - 09:15

Arm	Side	Lane level	Lane	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)
1 - Wide Lane (N)	Entry	1	1	0.83	0.00	0.00	1.84	2.54
			2	0.71	0.00	0.00	1.74	2.50
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - Mitchell Way (E)	Entry	1	1	0.09	0.00	0.00	0.00	0.44
			2	0.28	0.00	0.00	0.67	1.33
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - George Curl Way (S)	Entry	1	1	0.09	0.00	0.00	0.00	1.00
			2	0.03	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
4 - Wide Lane (W)	Entry	1	1	2.82	0.00	0.83	6.67	9.00
			2	0.08	0.00	0.00	0.00	1.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00